2019
annual report

THE HONG KONG AND
CHINA GAS COMPANY LIMITED

(STOCK CODE: 3)

Go Green Every Day

Towards a greener future

At Towngas, we supply the environmentally-friendly energy and products that contribute to a greener world for people in Hong Kong and mainland China and a more sustainable future for the next generation. Through our commitment to research, we are making breakthroughs in innovative technology that are helping to overcome global environmental challenges.

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2019 Awards and Recognitions

Hong Kong Business Sustainability Index

Exemplar Rating

by Centre for Business Sustainability, The Chinese University of Hong Kong Business School

Global 2000

World's Best Employers 2019

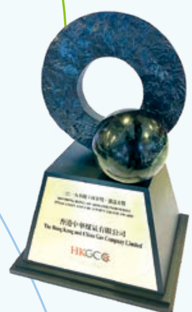
by *Forbes*

Hong Kong Awards for Environmental Excellence

Gold Award – Restaurant Sector

by Environmental Campaign Committee

| **Flame at Towngas Avenue** |



2019 Hong Kong Awards for Industries

Innovation and Creativity Grand Award

by The Hong Kong General Chamber of Commerce

BOCHK Corporate Environmental Leadership Awards

Gold Award – Manufacturing Sector

Guangdong-Hong Kong-Macao Bay Area Environmental Leadership Recognition Award

by Federation of Hong Kong Industries and Bank of China (Hong Kong)

Constituent Companies of the Hang Seng Corporate Sustainability Index Series

by Hang Seng Indexes Company Limited

| **Towngas and Towngas China** |

IFAPC Outstanding Listed Company Award 2019

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

Business Coverage in 2019

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
43. Taizhou (District High Pressure Network)

LNG Refilling Station
44. Nanjing (Marine)

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

New Energy Projects

Coal Mining
53. Inner Mongolia Ordos Kejian

Coal-based Chemicals
54. Jiangxi Fengcheng
55. Inner Mongolia Ordos

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

Upstream Projects
101. Shanxi LCBM
102. Jilin Tianyuan
103. Xuzhou COG

Coal Logistics Project
104. Shandong Jining Jiaxianggang Logistics Port

Biomass
105. Zhangjiagang
106. Hubei Jingzhou
107. Luanzhou
108. Cangzhou (Biofuel)

Oilfield Project
109. Phetchabun Province in Thailand

Telecommunication Projects
110. Shandong Jinan
111. Shandong Jinan Chibo
112. Shandong Laiyang
113. Xuzhou Fengxian
114. Xuzhou Peixian
115. Liaoning Dalian DETA
116. Dalian Yida
117. Harbin
118. Beijing Zhongjing
119. Beijing Chibo
120. Dongguan
121. Shenzhen (Qianhai)
122. Shenzhen (Interlink Connectivity)
123. Yingtong TGT Network Services (Shenzhen)

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

Towngas China (Stock Code: 1083)

Piped City-Gas Projects

Guangdong Province
141. Foshan
142. Shaoguan
143. Qingyuan
144. Yangdong
145. Fengxi

Eastern China
146. Nanjing Gaochun
147. Dafeng
148. Tongshan
149. Hubei Zhongxiang
150. Maanshan
151. Bowang
152. Zhengpugang Xin Qu Modern Industrial Zone
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. Laoshan Bay
174. Zibo
175. Zibo Lvbo
176. Longkou
177. Jinan West
178. Weifang
179. Weihai
180. Taian
181. Chiping
182. Linqu
183. Laiyang
184. Zhaoyuan
185. Pingyin
186. Feicheng
187. Boxing Economic Development Zone
188. Yangxin
189. Wulian

Hunan Province
190. Miluo

Northeastern China
191. Benxi
192. Chaoyang
193. Tieling
194. Fuxin
195. Shenyang Coastal Economic Zone
196. Yingkou
197. Dalian Changxingdao
198. Dalian Economic and Technical Development Zone
199. Anshan
200. Lvshun
201. Kazuo
202. Beipiao
203. Wafangdian
204. Xinqiu
205. Jianping
206. Changchun
207. Gongzhuling
208. Siping
209. Qiqihar

Hebei Province
210. Qinhuangdao
211. Yanshan
212. Cangxian
213. Mengcun
214. Shijiazhuang

Inner Mongolia
215. Baotou

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

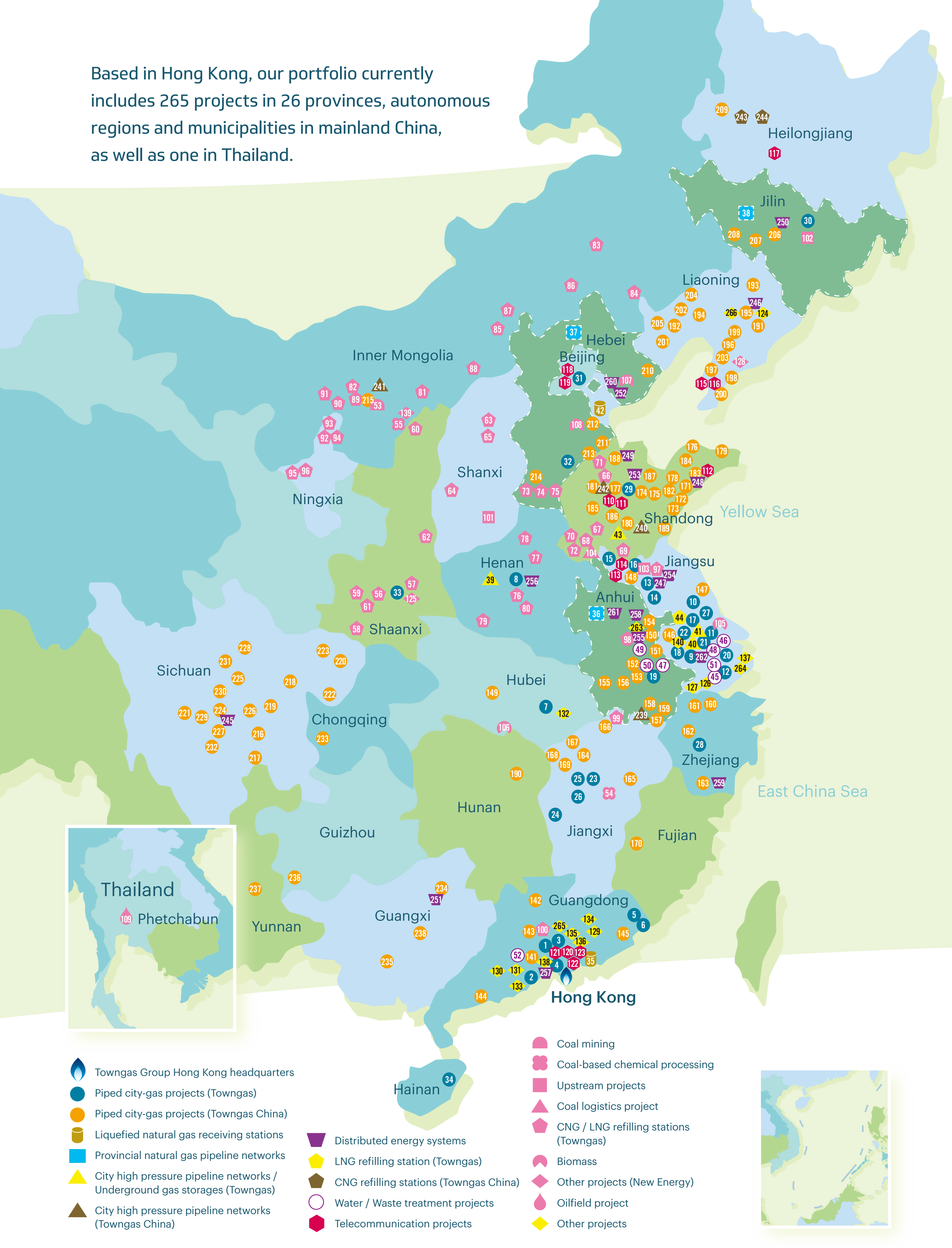
Midstream Projects
239. Xuancheng NG
240. Taian Taigang
241. Inner Mongolia NG
242. Jinan-Liaocheng Pipeline & Chiping South Citygate

CNG Refilling Stations
243. Qiqihar (Lianfu)
244. Qiqihar (Xingqixiang)

Distributed Energy Systems
245. Sichuan
246. Shenyang Economic and Technical Development Zone
247. Jiawang District, Xuzhou
248. Jimo Chuangzhi New District, Qingdao
249. Yangxin Economic & Technological Development Zone, Binzhou
250. Changchun
251. Guilin
252. Tangshan Chengnan Economic Development Zone
253. Boxing Economic Development Zone, Binzhou
254. Xuzhou Biomedical Industrial Park
255. Maanshan Economic and Technological Development Zone South District
256. Zhengzhou Xinmi Yinji International Tourism Resort
257. Shenzhen Gas Building
258. Dangtu Economic Development Zone Northern District
259. Lishui Songyang Wangcun Industrial Park
260. Tangshan Fengnan Lingang Economic Development Zone
261. Anhui Electricity Company
262. Changzhou Photovoltaic Industrial Park

Other Projects
263. Zhuojia Public Engineering
264. Towngas Natural Gas Sales
265. U-Tech (Guang Dong) Engineering
266. Liaoning Clean Energy Group

Based in Hong Kong, our portfolio currently includes 265 projects in 26 provinces, autonomous regions and municipalities in mainland China, as well as one in Thailand.



Business Highlights

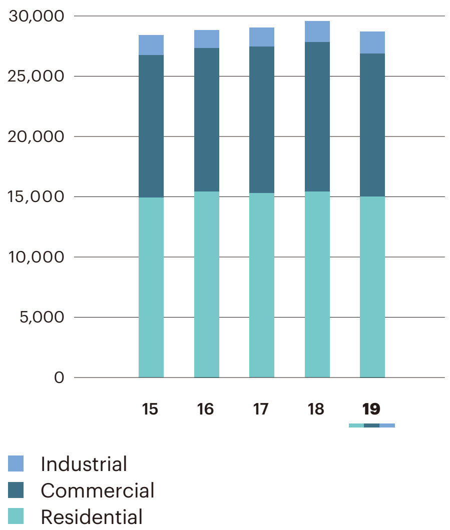
	2019	2018	Change %
Operating (Company)			
Number of Customers as at 31st December	**1,933,727**	1,908,511	+1
Number of Customers per km of Mains	**565**	562	+1
Installed Capacity, thousand m^3 per hour	**525**	525	–
Peak Hourly Demand, thousand m^3	**473**	555	-15
Town Gas Sales, million MJ	**28,712**	29,550	-3
Number of Employees as at 31st December	**2,096**	2,052	+2
Number of Customers per Employee	**923**	930	-1
Financial			
Revenue, HK million dollars	**40,628**	39,073	+4
Profit Attributable to Shareholders, HK million dollars	**6,966**	9,313	-25
Dividends, HK million dollars	**5,924**	5,385	+10
Shareholders			
Issued Shares, million of shares	**16,925**	15,386	+10
Shareholders' Funds, HK million dollars	**64,209**	62,401	+3
Earnings per Share, HK cents	**41.2**	55.0*	-25
Dividends per Share, HK cents	**35.0**	31.8*	+10
Shareholders' Funds, HK dollars per share	**3.79**	3.69*	+3
Number of Shareholders as at 31st December	**13,945**	13,768	+1

* *Adjusted for the bonus share issue in 2019*

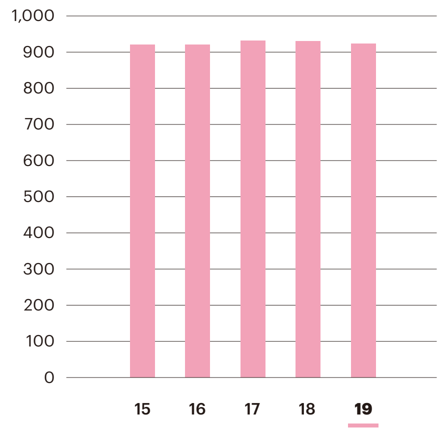
Five-Year Summary

Town Gas Sales

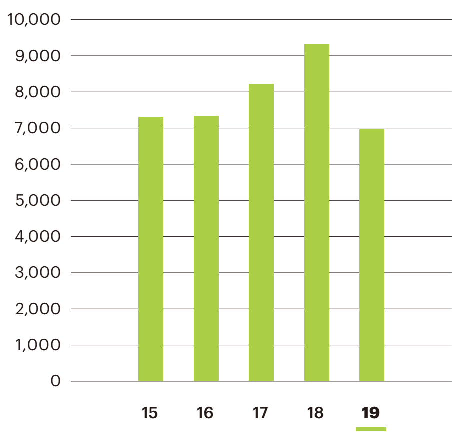
Company (million MJ)



Number of Customers per Employee Company

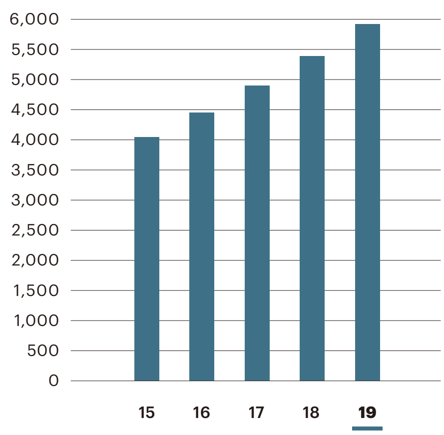


Profit Attributable to Shareholders (HK$ million)



Dividends

(HK$ million)



Chairmen's Statement

The Year's Results

Under the impact of global economic weakness and trade disputes between mainland China and the United States (the "US"), the mainland's economic growth slowed in 2019 compared to 2018 and the renminbi weakened. Hong Kong also faced instability caused by social conflict incidents during the second half of 2019 arising from opposition towards the proposed amendments to the Fugitive Offenders Ordinance. Despite these setbacks, the Group's businesses in mainland China and Hong Kong maintained stable development with a slight decrease in profit of the Group's overall recurrent businesses in 2019.

The Group's profit after taxation for the year (exclusive of the Group's share of a revaluation surplus from an investment property, the International Finance Centre complex) amounted to HK$6,766 million, a decrease of HK$517 million, down by approximately 7 per cent compared to 2018. Inclusive of the Group's share of the revaluation surplus from the investment property, profit after taxation attributable to shareholders of the Group for the year amounted to HK$6,966 million, a decrease of

Lee Ka-shing

Lee Ka-kit

HK$2,347 million, down by approximately 25 per cent, compared to 2018. Earnings per share for the year amounted to HK41.2 cents.

During the year under review, the Group invested HK$7,053 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 overall global economic environment and uncertainties over trade tariffs between mainland China and the US led to a downturn in Hong Kong's import and export sectors and logistics businesses in 2019. Coupled with a drastic fall in the number of inbound tourists resulting from social conflict incidents during the second half of 2019, local spending declined; restaurant, retail and hotel sectors were severely impacted, thus adversely affecting commercial and industrial gas sales. Additionally, as the average temperature in Hong Kong during 2019 was higher than 2018, residential gas sales also declined. Overall, total volume of gas sales in Hong Kong for 2019 was 28,712 million MJ, a decrease of 2.8 per cent, in contrast to over 290,000 units of appliances sold, an increase of 2.4 per cent, both compared to 2018.

As at the end of 2019, the number of customers was 1,933,727, an increase of 25,216 compared to 2018, up slightly by 1.3 per cent.

Business Development in Mainland China

The Group's mainland businesses continued to progress steadily during 2019. Overall, inclusive of projects of the Group's subsidiary, Towngas China Company Limited ("Towngas China"; stock code: 1083.HK), the Group had 265 projects on the mainland, as at the end of 2019, spread across 26 provinces, autonomous regions and municipalities. These projects encompass upstream, midstream and downstream natural gas sectors, environmentally-friendly energy and efficient energy applications, water sectors and waste processing, as well as telecommunications.

The Group's development of emerging environmentally-friendly energy businesses, through ECO Environmental Investments Limited ("ECO"), include coalbed methane liquefaction, clean coal chemicals, conversion and utilisation of biomass, utilisation of industrial and agricultural waste as well as natural gas refilling stations. With a number of achieved results from research and development gradually being applied commercially, it is expected this will 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 into a sizeable and nationwide utility and a multi-business corporation focused on environmentally-friendly energy ventures.

Utility Businesses in Mainland China

The Group's city-gas businesses on the mainland are progressing well. As at the end of 2019, inclusive of Towngas China, the Group had a total of 132 city-gas projects in mainland cities spread across 23 provinces, autonomous regions and municipalities. The total volume of gas sales for these projects in 2019 was approximately 25,550 million cubic metres, an increase of 11 per cent over 2018. As at the end of 2019, the Group's mainland gas customers stood at approximately 29.78 million, an increase of 8 per cent over 2018. The Group continues to have a good reputation as a large-scale city-gas enterprise with outstanding overall performance on the mainland.

2019 was the 25th anniversary of the Group entering into the mainland city-gas market. The Group's city-gas businesses, benefiting from the country's environmental protection policy and migration of population to cities, are continuing sustainable development. In 2019, China-US trade disputes brought uncertainties over tariffs on goods being exported to the US which adversely impacted export-oriented manufacturing enterprises on the mainland, some of which started to move their production lines to Southeast Asian countries in view of this unfavourable business environment. The mainland's economic growth therefore slowed in 2019 compared to 2018. Growth in demand for energy also slowed. Mainland China and US trade negotiators reached a phase one trade deal in December 2019 and an agreement was signed on 15th January 2020, expecting to help release tariff pressure faced by the mainland's manufacturing industries which export to the US.

In the long term, the Group's city-gas businesses continue to benefit from the country's environmental protection policy of speeding up the use of natural gas to replace coal across the country in order to reduce carbon emissions and improve smoggy atmospheric conditions. Substituting piped natural gas for bottled petroleum gas is also being encouraged in mainland cities, aimed at lowering safety risks. In addition, 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. The Group is also actively developing intelligent integrated energy system businesses, combining power, natural gas, renewable energy and power storage functions. Coupled with application of big data, artificial intelligence, the Internet, etc. to strengthen the management of energy use, the Group is endeavouring to achieve energy conservation and emission reduction, whilst also generating economic value.

The Chinese government has been making strong efforts to drive market-oriented reforms for natural gas and city-gas industries in recent years with several new policies announced, including:

- With effect from 30th July 2019, a national policy to remove the requirement for Chinese partners to hold a majority stake in certain industries, including city-gas and thermal pipeline networks, in cities with populations of more than 500,000, so as to help open up related markets. This will benefit the Group's sustainable development of its city-gas businesses.

- The "Guiding Opinions on Strengthening Gas Distribution Price Regulation" and the "Guiding Opinions on the Regulation of Installation Fees for Gas Facilities in Cities and Towns" published in 2017 and June 2019 respectively which set out proposed return rates for both gas distribution and gas facility installation businesses of city-gas enterprises. In future, the Group's city-gas companies may face the risk of having to adjust their natural gas selling prices and gas facility installation fees accordingly which is creating uncertainties for the Group both operationally and financially. In view of the above, management is actively monitoring changes as a result of these policies and will take appropriate measures to address as necessary.

Nevertheless, as natural gas is being promoted as a major clean energy 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 which is now becoming abundant with a gradual increase in imported piped natural gas from Central Asia and Myanmar and a rise in the sources of imported liquefied natural gas ("LNG"), both to the benefit of market development. In addition, Russia's Siberian east-route pipeline, which was commissioned in early December 2019, is expected to increase upstream gas sources for the Group's city-gas projects in northeastern and northern China. A number of mainland provinces and cities are also gradually implementing gas storage facilities to help boost supply capacity over winter alongside the construction of coastal LNG receiving stations to increase import channels. All these projects will contribute to a stable supply of natural gas, helping the Group's mainland city-gas businesses continue to thrive in the future.

The Group is actively enhancing its own 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; the first three wells were commissioned at the end of October 2018. Phase two involves the construction of 15 wells. Upon completion, total storage capacity of the whole facility will reach 1.1 billion standard cubic metres, enabling the Group to 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, it is planned that this facility will supply gas to the Group's city-gas projects in other regions through interconnected upstream pipeline networks, thus assisting 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 14 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 water services joint venture project in Foshan city, Guangdong province through investment in Foshan Water Environmental Protection Co., Ltd., being the Group's first water services project located in the Guangdong-Hong Kong-Macao Greater Bay Area. In addition, given food waste processing and utilisation is also a sizeable 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 municipal environmental and sanitary waste into value-added products. This type of business is targeted to be gradually extended to other affluent mainland regions.

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

An outbreak of coronavirus disease (COVID-19) causing pneumonia, starting in early 2020, is severely impacting the country. Enterprises under the Group are actively responding to full deployment; public utility businesses, in particular, are the most important, with a mission to ensure both supply and provision of services, while making every effort to conduct epidemic prevention and control.

As the outbreak of the coronavirus disease across the country is serious, different kinds of production and business premises nationwide have been closed for some time whilst resumption of work after the Chinese New Year holiday was postponed. Consumer spending and manufacturing have shrunk significantly, leading to a drastic fall in demand for gas and water in commercial and industrial sectors. At the same time, local governments on the mainland have launched measures to support the ongoing development of small and medium-sized enterprises in response to the epidemic by requiring public utility enterprises to implement preferential policies such as reducing fees and deferring fee payment, which will, inevitably, impact the results of the Group for the year 2020.

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. ECO's landfill gas utilisation projects in the North East New Territories and the South East New Territories generate noticeable environmental benefits by avoiding in-situ burning and emission of landfill gas whilst enabling partial replacement of fossil fuels, thus increasing the Group's contribution to energy conservation and emission reduction in Hong Kong.

ECO's coalbed methane liquefaction facility, located in Jincheng city, Shanxi province, and clean coal chemical project in Ordos city, Inner Mongolia Autonomous Region, are operating well. However, both projects were severely impacted by a significant fall in the selling prices of LNG, methanol and ethylene glycol caused by a reversal of the economic environment and weak consumer spending on the mainland as a result of ongoing China-US trade disputes, coupled with a warmer winter affecting peak demand for LNG. Nevertheless, the business environment is expected to improve following the recent signing of the China-US phase one economic and trade agreement.

ECO's project which processes inedible bio-grease feedstock into hydro-treated vegetable oil (HVO), located in Zhangjiagang city, Jiangsu province, is in the trial production stage. The "International Sustainability and Carbon Certification" (ISCC) gained by this project successfully established the advance nature and viability of ECO's self-developed patented technology. On this basis, ECO is constructing phase two of this project to enhance production capacity to 250,000 tonnes per annum; commissioning is expected in mid-2020. This project is expected to generate promising economic benefits, and will be a key business for ECO to develop.

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 entered into a stage of industrial application of its research and development results focused on the effective use of agricultural and forestry waste. A pilot project, located in Tangshan city, Hebei province, is expected to enter into trial production during the first half of 2020, yielding furfural and paper pulp, helping to ascertain the feasibility of ECO's self-developed patented technology. In addition, ECO has commenced another pilot project in Cangzhou city, Hebei province, utilising agricultural and forestry waste by further processing decomposed cellulose into cellulosic ethanol. As an advanced biofuel that can be added to gasoline, cellulosic ethanol will help ECO meet its target to replace fossil fuels whilst generating good economic value.

ECO continues to march along its well-defined new energy business strategy, developing in-house technology and integrating the application of existing technology. On this basis, ECO selects research and development results with higher economic and environmental protection value for commercialisation.

Telecommunications Businesses

The Group is developing telecommunications businesses through its wholly-owned subsidiary Towngas Telecommunications Company Limited and the latter's subsidiaries (collectively known as "TGT"). As a Hong Kong fixed network service provider and industry-leading telecommunications infrastructure enabler, TGT is committed to providing connectivity, data centres and diversified telecommunications services to Hong Kong, mainland China and international telecommunications providers, operators and enterprises. TGT's businesses are progressing steadily, with seven data centres currently located in Hong Kong and mainland China. TGT is strengthening its foundations to cater for data transmission, processing and storage needs as well as swifter market development in the future.

TGT's world-class data centre located in Tseung Kwan O, Hong Kong, records promising rental. TGT is also proactively promoting business development in mainland China. Shenzhen Internet Exchange Co., Ltd., an associated company of TGT, has been granted several value-added telecommunications service licences to provide services related to the Internet and data centre businesses in Shenzhen city. In addition, TGT has formed a new joint venture company with a strategic partner in Beijing for the development of connectivity, data centre and fog computing (small-scale data centre) businesses on the mainland. TGT is also planning to expand its telecommunications services business to other regions in Asia.

As demand for telecommunications services is rapidly progressing, coupled with the strategic location of the Guangdong-Hong Kong-Macao Greater Bay Area, TGT, possessing data centres in Hong Kong and mainland China, together with communication channels connecting mainland China, Hong Kong and overseas, is expected to exhibit greater room for development in the future.

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

Towngas China, a subsidiary of the Group, maintained stable business growth in 2019. Compared to 2018,

profit after taxation attributable to shareholders (excluding impairment provision of goodwill) for the year rose by 19 per cent to HK$1,456 million. After deducting the one-off impairment provision of goodwill, profit after taxation attributable to shareholders for the year amounted to HK$1,308 million, an increase of 7 per cent compared to 2018.
As at the end of December 2019, the Group held approximately 1,945 million shares in Towngas China, representing approximately 67.76 per cent of Towngas China's total issued shares.

Project development progressed well in 2019 with Towngas China adding 11 new projects to its portfolio, comprising U-Tech (Guang Dong) Engineering Construction Co., Ltd., a piped city-gas project in Laoshan district, Qingdao city, Shandong province, and Liaoning Clean Energy Group Co., Ltd., as well as eight distributed energy projects located in Fengnan Ligang Economic Development Zone, Tangshan city, Hebei province; in the Maanshan Economic and Technological Development Zone South District, Anhui province; in Dangtu Economic Development Zone North District, Anhui province; in Anhui province (developing sales of power); in Changzhou Photovoltaic Industrial Park, Jiangsu province; in Wangcun Industrial Zone, Songyang county, Lishui city, Zhejiang province; in the Xinmi Yinji International Tourism Resort, Zhengzhou city, Henan province; and in Shenzhen city, Guangdong province.

As mainland China is accelerating the restructuring of green and efficient energy consumption, continuously augmenting the share of natural gas in primary energy consumption, and is increasingly focused on improving energy efficiency to reduce carbon emissions, Towngas China expects to see more growth in natural gas sales in the coming years.
In response to changes in the economic environment and industrial development, Towngas China is continuing to strengthen its upstream, midstream and downstream coverage, by enhancing its gas supply capacity during peak seasons, reducing cost of gas sources and striving to provide customers with clean energy and quality services.
In addition, Towngas China will continue to develop coal-fired boilers and coal-to-gas conversion projects for industrial kilns to increase gas sales to industrial and commercial customers. Towngas China is also proactively exploring commercial integrated and distributed energy services business opportunities in sales of goods and services including hot water, washing, steam and heating, aiming to save customer costs through appropriate energy solutions.
In respect of extended businesses, Towngas China is seeking to make strategic cooperative arrangements, under the Group brand name "Towngas Lifestyle", to increase sales of gas insurance and "Mia Cucina" kitchen cabinets, and to provide customers with intelligent living services through an online customer centre platform. As there are increasing opportunities for developing these types of new businesses, Towngas China is confident it can maintain high quality and sustainable growth through innovative development.

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$858 million, with a tenor of 30 years, were issued during 2019. In line with the Group's long-term business investments, as at 31st December 2019, the nominal amount of medium term notes issued had reached HK$14.8 billion with tenors ranging from 3 to 40 years, mainly at fixed interest rates with an average of 3.4 per cent per annum and an average tenor of 16 years. The Group updated the programme during 2019 and increased the issue size by US$1 billion to US$3 billion, introducing more flexibility for future financing.

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, which also helps to strengthen the Group to maintain its high investment grade credit ratings. Therefore, the Group issued US$300 million new Perpetual Securities again in

February 2019 and the proceeds are mainly used to refinance the redeemed Perpetual Securities. The newly issued Perpetual Securities keep the coupon interest rate at 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 BBB+ 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 2019, the number of employees engaged in the town gas business in Hong Kong was 2,096 (2018 year end: 2,052), the number of customers was 1,933,727, and each employee served the equivalent of 923 customers. 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 2,474 as at the end of 2019 compared to 2,418 as at the end of 2018. Related manpower costs amounted to HK$1,201 million for 2019. In 2019, there was an approximately 4.5 per cent average increase in remuneration over 2018. 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 50,410 as at the end of 2019, an increase of approximately 710 compared to 2018.

On behalf of the Board of Directors, we 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 twenty existing shares held by shareholders whose names are on the Register of Members of the Company as at 15th June 2020. The necessary resolution will be proposed at the forthcoming Annual General Meeting on 5th June 2020, and if passed, share certificates will be posted on 23rd June 2020.

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 15th June 2020. Including the interim dividend of HK12 cents per share paid on 2nd October 2019, the total dividend payout for the whole year shall be HK35 cents per share.

Barring unforeseen circumstances, the forecast dividends per share for 2020 after bonus share issue shall not be less than the interim and final dividends for 2019.

Business Outlook for 2020

The Company predicts steady growth in its number of customers in Hong Kong during 2020. Although local social conflict incidents, lasting for several months, have now eased slightly, the spread of the coronavirus disease from mainland China to Hong Kong in late January this year, with confirmed cases continuing to rise, coupled with related epidemic prevention measures, has decreased the number of inbound visitors significantly and weakened consumer sentiment, strongly hitting retail, tourism, restaurant and hotel sectors and leading to a rise in unemployment. The local economy is therefore expected to decline further this year. Facing this challenging business environment in Hong Kong, the Group is adopting measures to broaden sources of revenue and cut expenditure and costs. The Company continues to promote smart innovation to enhance customer services and operational efficiency so as to maintain stable development of its gas business in the territory. The Company's increase in the standard gas tariff effective from 1st August 2019 is also helping to offset some of its rising operating costs. In the long term, the Group's gas business in Hong Kong will benefit 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 Group's number of gas customers over the next few years.

China-US trade tensions eased following the signing of the phase one economic and trade agreement in mid-January this year, bringing an initial turnaround to the mainland's export manufacturing sector. However, since early 2020, the outbreak of the coronavirus disease has significantly affected various business sectors on the mainland creating a severely challenging business environment. Nevertheless, once commercial and industrial sectors fully resume operations after the epidemic eases at some time in the future, demand for gas will gradually return to normal levels. In the long term, the Chinese government's efforts to promote reduction of carbon emissions and use of clean energy are helping the development of natural gas markets. In addition, increasing upstream gas supplies, expansion and improvement of pipeline networks and the Chinese government's formation of a national pipeline company in December 2019 to advocate natural gas market reforms, together with rapid urbanisation, all favour the development of the downstream gas market and a healthy natural gas business sector in general.

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, human resources, corporate brand names and sales channels built there in the past 25 years, alongside society's growing concern over environmental protection, it is anticipated that there will be ever-rising demand for clean energy and good potential for growth in the natural gas market. The Group is also developing intelligent integrated energy system businesses on the mainland, coupled with a diversified energy mix, energy storage facilities and application of technologies including big data and the Internet, with the aim to enhance energy efficiency and achieve energy conservation and emission reduction. The Group's mainland businesses are therefore expected to further prosper and diversify. In addition, given that the number of piped-gas customers in Hong Kong and mainland China is rising, the Group foresees that a sizeable customer base will create a promising platform for expansion of various extended 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.

The impact of the coronavirus disease on the mainland economy for the whole of 2020 is still uncertain; it will, however, be relatively significant during the first quarter. The recent spread of the coronavirus disease to various countries and regions worldwide, coupled with future development of China-US trade relations and a sharp fall in international oil prices, are creating a number of uncertainties for the global economic and business outlook. In Hong Kong, while social conflict incidents lasting for several months have already adversely impacted retail, tourism, restaurant and hotel sectors, the outbreak of the coronavirus disease has further hit related business sectors which is, inevitably, unfavourably affecting commercial and industrial gas sales in the short term. With public utilities as its core business, the Group has a relatively strong resilience to the impact of economic downturns, given its continuing efforts to broaden sources of revenue and cut expenditure and operating costs. It is expected that when the epidemic is over, the Group's businesses will return to normal within a relatively short period of time. Overall, with society's growing aspiration for more environmental protection, demand for natural gas and renewable energy will increase. The Group will continue to formulate, and is gradually implementing, plans in accordance with mainland China's energy and environmental protection policies. In addition, with sizeable customer base resources built up after years of operating urban utilities, alongside the development of various value-added services, the Group anticipates an ever-broader development for its various businesses in the future.

Lee Ka-kit *Chairman*

Lee Ka-shing *Chairman*

Hong Kong, 19th March 2020

Board of Directors

Dr. Lee Ka-kit
G.B.S., J.P., D.B.A. (Hon.),
Chairman & Non-executive Director

Aged 56. Dr. Lee was appointed to the Board of Directors of the Company in 1990 and subsequently appointed Chairman in May 2019. He was educated in the United Kingdom. He is a Chairman and Managing Director of Henderson Land Development Company Limited ("Henderson Land Development") and a Vice Chairman of Henderson Investment Limited. Dr. Lee was previously a Non-executive Director of The Bank of East Asia, Limited and an Independent Non-executive Director of Xiaomi Corporation until his resignation, both on 23rd August 2019. All the above companies are listed public companies. He is also a Vice Chairman of Henderson

from left to right

Alfred Chan Wing-kin　Moses Cheng Mo-chi　David Li Kwok-po　Lee Ka-kit *Chairman*

Lee Ka-shing *Chairman*　Poon Chung-kwong　Colin Lam Ko-yin　Peter Wong Wai-yee

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 page 69 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, a controlling shareholder of the Company and the brother of Mr. Lee Ka-shing, a Chairman and Non-executive Director of the Company.

Mr. Lee Ka-shing

J.P.,

Chairman & Non-executive Director

Aged 48. Mr. Lee was appointed to the Board of Directors of the Company in 1999 and subsequently appointed Chairman in May 2019. He was educated in Canada. He is a Chairman and Managing Director of Henderson Land Development Company Limited ("Henderson Land Development"), the Chairman and Managing Director of Henderson Investment Limited as well as 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 page 69 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, a controlling shareholder of the Company and the brother of Dr. Lee Ka-kit, a Chairman and Non-executive Director 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 68. Dr. Lam was appointed to the Board of Directors of the Company in 1983. He has more than 46 years' experience in banking and property development. He is the Deputy Chairman of The University of Hong Kong Foundation for Educational Development and Research, a Director of Fudan University Education Development Foundation and an honorary Court member of Hong Kong Baptist University. 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, an Honorary Fellowship by The Chinese University of Hong Kong in 2019 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 page 69 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 81. Sir David was appointed to the Board of Directors of the Company in 1984. Sir David is the Executive Chairman 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. He was previously an Independent Non-executive Director of PCCW Limited. All the above companies are listed public companies. 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, Chairman of the Executive Committee of St. James' Settlement and a Fellow of the Hong Kong Academy of Finance. 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.

Prof. Poon Chung-kwong

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

Independent Non-executive Director

Aged 80. 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 (now known as Shenzhen Investment Holdings Bay Area Development Company 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 page 69 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 70. 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. In addition, he is a Fellow of the Hong Kong Academy of Finance. 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, 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 a Non-executive Director of Kader Holdings Company Limited and 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 69. 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., a director of Foran Energy Group Co., Ltd. (formerly known as Foshan Gas Group Co., 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. He was previously the Deputy Chairman of the Council of The Hong Kong Institute of Education (now known as The Education University of Hong Kong) and 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 2019. 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-yee

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 68. 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 and a director of Shenzhen Gas Corporation Ltd. and China-Singapore Suzhou Industrial Park Development Group Co., Ltd.. He was previously the Vice Chairman of Foshan Gas Group Co., Ltd. (now known as Foran Energy Group Co., 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. He 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, a member of the Advisory Board of the Department of Accounting of Hong Kong Shue Yan University. He is a member of the Advisory Committee of the College of Professional and Continuing Education, The Hong Kong Polytechnic University. Mr. Wong has over 43 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

Alfred Chan Wing-kin
Managing Director

Fan Kit-yee
Head of Corporate Human Resources

Peter Wong Lam-sang
Head of Commercial – Hong Kong Utilities

John Ho Hon-ming
Chief Financial Officer and Company Secretary

Simon Ngo Siu-hing
Head of Engineering – Hong Kong Utilities

Peter Wong Wai-yee
Executive Director and Chief Operating Officer – Utilities Business


CLEAN

Mainland Utility Businesses

Clean Energy from Waste

Our first food waste recycling project converts food waste and green waste into clean natural gas.

Distributed Energy Systems

Combining heat and power generation, our highly efficient Distributed Energy Systems are helping to reduce energy costs.

Commercial Laundry Business

We are exploring a new opportunity with commercial laundry business that serves hotels in affluent cities.

Mainland Utility Businesses

The year 2019 marked the 25th anniversary of Towngas in mainland China since the establishment of our first joint venture in Panyu, Guangzhou in 1994. Today, our mainland business has expanded to include 132 city-gas projects serving around 30 million customers in 23 provinces, autonomous regions and municipalities. With the growing demand for natural gas and the support of the national Environmental Protection Policy to replace coal, Towngas is contributing to an even more sustainable future for mainland China.

Energy for a Sustainable Future

In 2019, mainland China struggled against economic headwinds brought about by China-US trade disputes. Despite the difficult business environment, Towngas' overall business performance was satisfactory as a result of our efforts to increase sales and identify new business opportunities.

The demand for our natural gas remained high throughout 2019, enabling us to achieve an average of double-digit growth in sales. Our city-gas business recorded a total volume of gas sales of around 25,550 million cubic metres, which was 11 per cent higher than in 2018.

The growing demand for gas can be attributed to the Chinese government's coal-to-gas policy and commitment to reducing carbon emission intensity. As a supplier of natural gas, the cleanest fossil fuel, we are playing a significant role to support this policy by introducing highly efficient gas applications for customers in a wide range of trades and industries. These include manufacturing industries such as steel, ceramics, glass, textiles and food as well as businesses in the commercial sector, such as laundries, hotels, restaurants and entertainment

We supply gas to a glass factory in Zibo, Shandong province for manufacturing processes such as forming and polishing.

In Xuzhou, Jiangsu province, this soybean milk factory utilises gas boilers to generate steam for sanitising soybean milk and bottles.

theme parks. Through our efforts to help customers convert from coal to natural gas, we are contributing to the reduction of pollution and, thus, a cleaner environment.

Distributed Energy Systems (DES) have proven to be a promising business for us. Strong growth has been recorded in this business since it started in 2017. In 2019, we secured eight new DES projects in Anhui, Hebei, Henan, Zhejiang and Guangdong provinces, for an equivalent of 400 million cubic metres in total gas consumption per year. As we continue to explore opportunities in this market, we are aiming to reach a target of 3.5 billion cubic metres in annual DES gas sales by the year 2022.

More and more commercial and industrial customers are recognising the value of these combined heat and power systems, which can offer energy efficiency rates of up to 80 per cent or more. They are particularly in demand in industrial parks, where a centralised energy supply can be used to generate electricity and simultaneously produce hot water, steam and chilled water through waste heat. As we also see strong demand for residential space heating and steam supply in winter, especially in the northern region of China, we are encouraging the adoption of DES by local districts for the increased energy efficiency and cost savings these systems offer.

Similarly, we would like to enter the new era of Smart Energy by developing an energy portfolio encompassing electricity, steam, natural gas and renewable energy, all of which would be integrated and managed using artificial intelligence and big data via the Internet to achieve higher energy efficiency.

In addition, we have identified new business opportunities among our existing city-gas projects arising from the Chinese government's policy in July 2019 to lift the cap on equity investment by foreign investors. This policy overturned the requirement of Chinese partners to hold a majority stake in certain industries, such as city-gas and thermal pipeline networks, in cities with a population greater than 500,000 people. As a result, we now have greater flexibility to invest in the city-gas projects we currently operate.

Building Up Midstream Businesses

We strive to secure a reliable supply of natural gas by investing in midstream facilities, such as long-haul pipelines and gas storage facilities, in accordance with our diversified gas sourcing strategy.

Since 2016, we have integrated the Group's gas purchasing functions to expand our supply sources. In 2019, we partnered with a number of upstream suppliers to purchase 140,000 tonnes of liquefied natural gas (LNG).

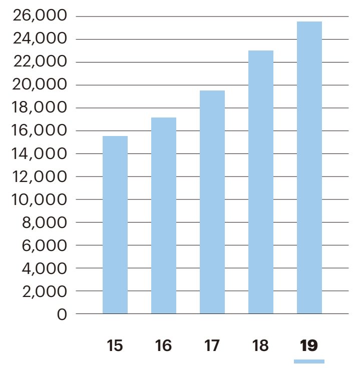
With an initial storage capacity of 460 million cubic metres, the first phase of our underground salt-cavern gas storage facility in Jintan, Changzhou, Jiangsu province went into full operation during the year. The second phase is currently under construction towards a targeted completion in 2023. Once this phase is in full operation, it is expected to provide a total storage capacity of 1.1 billion cubic metres and a working volume of 660 million cubic metres. The facility will not only increase our storage capacity but also help us to regulate gas supply and prices more effectively.

This process, called "peak shaving", enables us to save up gas in the summer months when demand and fuel costs are lower and provide additional gas supply during the winter peak load when demand is higher.

In another development, the Chinese government in 2019 established a national oil and gas pipeline network company by merging the gas pipeline assets of the three state-owned oil and gas companies. This represented a major breakthrough for energy enterprises such as ours, since the new oil and gas pipeline network company will open up the national pipeline network to third parties. For Towngas, it will enable us to diversify our gas supply channels and reserve more gas for our winter supply, which will have the effect of reducing our average procurement costs.

During the year, our Jintan storage facility fulfilled its peak shaving function and launched an auction for its stored gas on the Shanghai Petroleum and Natural Gas Exchange (SHPGX), the national trading platform for natural gas, liquefied petroleum gas, and petroleum. In December 2019, the storage facility successfully supplied gas to the main network of China National Petroleum Corporation's West-to-East Gas Pipeline, which helped us to attain targeted gas sales of up to 60 million cubic metres during the winter.

China Joint Ventures Gas Sales (million m^3)



A NEW MARKET

During the year, we launched a new commercial laundry business in Guilin, one of mainland China's most popular tourist destinations. There is great potential for this business, particularly among hotels, which typically have 15 items per room that must be laundered on a regular basis.

Our plant at Suzhou Industrial Park can handle 500 tonnes of food waste, green waste and landfill leachate each day.

Russia's Siberian east-route pipeline that connects to mainland China's northern industrial hub was commissioned in December 2019, which in its first phase will deliver 5 billion cubic metres of natural gas annually. The pipeline will supplement existing natural gas imports mainly from Central Asia and Myanmar, as well as other LNG sources, is expected to increase upstream gas supplies for our city-gas projects in northeastern and northern China.

In the future, we will further expand our midstream businesses and secure more energy sources through joint purchasing and marketing of LNG, importing overseas LNG, as well as storing gas and auctioning it via the SHPGX. It is estimated that the purchase and sales volume of LNG will reach 1.5 million tonnes by 2024.

Clean Water Supply and Food Waste Recycling

Since 2005, we have been operating a water supply and wastewater treatment business in mainland China through our wholly-owned subsidiary, Hong Kong & China Water Limited (Hua Yan Water). Today, this company has seven water projects.

We see great potential for this business in mainland China as clean water resources have been assigned a high priority. During the year, we sold 930 million tonnes of water to 2.4 million customers, an increase of 52 per cent over the previous year. This considerable growth can be attributed to water sales by Foshan Water Environmental Protection Co., Ltd (Foshan Water), a company in which we acquired a 26 per cent interest in late 2018.

Foshan Water, our first water services project in the Greater Bay Area, is providing new opportunities for our water services and environmental business and creating synergy for our other businesses in the region. Foshan Water, which currently serves more than 1 million households, recorded 430 million tonnes in water sales during the year – close to the volume of all other Hua Yan Water projects combined.

Another business with good potential is our first food waste project. Located at Suzhou Industrial Park, this business is engaged in the recycling of local food waste, green waste and landfill leachate for conversion into natural gas, oil products, solid fuel and fertilisers for use in the Park. The project commenced trial production in February 2019 and had produced more than 2 million cubic metres of natural gas by the end of the year.

In the future, we will continue to explore the urban food waste and environmental hygiene market as well as other suitable wastewater and organic waste treatment projects.

Extended Services Businesses

Our Bauhinia brand has been gaining widespread acceptance among customers looking for safe, high quality appliances. To date, we have sold a cumulative total of more than 6.5 million Bauhinia appliances since its launch in 2005.

During the year, we focused our marketing efforts on smart kitchens, space heating and clothes dryers as part of our Towngas Comfort Home concept. Our strategic objective with this business is to increase the number of gas applications in customers' homes in order to boost gas consumption and gain greater market share.

In addition to setting up "experience zones" at our sales outlets to promote space heating, we looked to property developers for achieving bulk purchase deals of gas clothes dryers. On the way towards the smart kitchen of the future, we are developing a line of Bauhinia smart appliances that are Internet of Things (IoT) enabled and can be remotely controlled. We expect to launch some of these smart appliance models in 2020.

As a result of our marketing efforts, we achieved encouraging sales of over 800,000 appliances in 2019, a rise of 4 per cent from the year before. Of these, 35,000 were gas clothes dryers and 30,000 were combi boilers.

Since 2015, we have offered a Total Kitchen Solution of premium kitchen equipment and cabinets under the Mia Cucina brand. In 2019, we succeeded in acquiring 14 new sales contracts to supply about 7,100 sets of Mia Cucina for over RMB65 million.

To promote our Mia Cucina cabinets, we set up a showroom – the first Mia Cucina Lifestyle Gallery – at Suzhou Industrial Park in early 2019. Aimed at property developers, this showroom has proven to be an ideal venue for showcasing the elegance, style and quality of the brand.

We set up the Towngas Lifestyle e-commerce platform in 2015. Accessible via websites, social media and mobile apps, the platform continued to provide a convenient online shopping experience and gas account services for customers. It offers a variety of high quality lifestyle services and products, including festive foods, kitchenware, gas related insurance and more.

To help our joint venture companies deliver better services, in 2019 we introduced more back-end functions on this platform, such as e-invoicing, account opening for commercial and industrial customers, WeChat and Alipay mini-applications, as well as a coupon module. We also developed a smart metering module to accommodate future developments in 5G and Narrowband IoT technology.

In the Mia Cucina Lifestyle Gallery at Suzhou Industrial Park, customers can view our latest premium cabinets.

A technician carries out a regular inspection at one of our gas receiving stations, in keeping with our rigorous approach to safety.

During the year, a total of 82 joint ventures made use of the Towngas Lifestyle platform to serve more than 13 million customers, including 6.7 million registered customers, who made a total of over 9 million transactions valued at RMB1.5 billion.

In October 2019, we extended the trusted Bauhinia brand into high quality local agriculture produce with the official opening of Bauhinia Farm in Zhenjiang, Jiangsu province. Covering an area of about 66.7 hectares, the farm provides locally grown hydroponic produce, livestock feed, sauces and other non-staple foods. In the future, we intend to collaborate with our city-gas joint ventures on sourcing local produce in various regions of the country, which will be reviewed and certified by Bauhinia Farm prior to their launch in the market.

Focus on Safety

The safety of our staff and customers continued to take the highest priority during the year, as part of our commitment not only to maintaining the highest standards of safety but to improving our capabilities in accident prevention.

In 2019, which we designated the Year of Strengthening Work Safety Management, we continued to carry out in-situ safety and risk audits for our project companies, as well as monthly safety inspections by the general managers of our utility joint ventures. We also used analytic tools such as risk assessment to enhance our operational safety and prevent accidents.

Soon after we started operating in mainland China, we introduced a proactive programme of regular safety inspections for residential customers' homes. These inspections have now become a model of good service as well as a common practice throughout the industry.

We have also dedicated significant resources towards educating our customers on safe gas usage, including the proper handling of gas and appliances. In 2019, we held the Gas Safety for All Creative Competition, in which more than 100 project companies disseminated safety messages to over 6 million customers.

During the year, we established a Safety Network to promote communication on safety among our project companies. Through this channel, we encourage the heads of our companies to increase accountability by motivating their staff to follow safe work practices in line with our corporate culture.

In 2019, we recorded no serious gas incidents and achieved our target of zero accidents. The number of third-party damage incidents and gas pipe network leakage cases both declined.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Joey Leung
INSTITUT CULINAIRE

Recipe for Success

At the Towngas Cooking Centre, cooking enthusiasts can become expert chefs after completing the prestigious Disciples Escoffier Professional Diploma Programme.

Premium Kitchens

Our premium line of Mia Cucina kitchen cabinets continued to grow in popularity and became the preferred choice of property developers.

Hong Kong Gas Business

A Smarter Meter

With our new Bluetooth-equipped meter, customers can enjoy greater convenience and report their gas meter readings with just one click.

Hong Kong Gas Business

We endeavour to provide customers with a clean source of fuel as well as high quality appliances and lifestyle products for their homes. Our goal is to create value for the people we serve with innovative solutions that contribute to a better quality of life and a more sustainable future.

Overcoming Challenges

For Towngas and Hong Kong, 2019 was a difficult and challenging year. The global economic environment and trade disputes between mainland China and the US severely affected Hong Kong's import and export sectors as well as logistics businesses. The social conflict incidents that started in June caused a sharp drop in tourist numbers and spending by local residents, adversely affecting commercial and industrial gas sales. Residential gas sales were also affected as a result of higher average temperatures throughout the year.

During the year, total gas sales amounted to 28,712 million MJ, a drop of 2.8 per cent from the previous year. The number of new customers in 2019 rose by 25,216 accounts to over 1.93 million.

In this adverse business environment, we made a strong effort to keep our costs at a low but acceptable level while continuing to deliver efficient and courteous service to our customers. Internally, we developed mobility solutions to streamline work processes and lower service operating costs. We also made use of multi-channel purchasing and low-cost substitutes to minimise our material expenses.

With regard to our business growth in the local market, we pursued several avenues such as new property developments,

REKINDLING OUR HERITAGE

On 23rd December 2019, the four historical gas lamps on Duddell Street in Central were ignited once again. After suffering severe damage during Typhoon Mangkhut in September 2018, they were sent to London and faithfully restored to their original condition and have now resumed operation from 6pm to 6am every day. Today, there are 56 modern and heritage gas lamps lighting up various parts of Hong Kong.

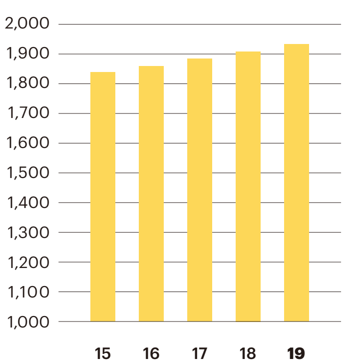
Thanks to our gas water heating system, our hotel clients have a more efficient way to heat water for showers, space-heating and swimming pools.

a major source of business for us. We have thus been working closely with developers to maximise town gas applications in the project development stage.

In addition, we looked at opportunities to acquire new customers and increase gas consumption in the commercial and industrial (C&I) sector. To that end, we not only promoted the conversion of non-gas applications but continued to diversify beyond the conventional use of gas

Number of Customers

Company (Thousand)



for cooking and heating water into gas applications such as absorption chillers and desiccant dehumidifiers.

Despite the economic difficulties of the year, we were able to secure new hotel and hospital customers such as Hong Kong Children's Hospital, The St. Regis Hong Kong, Rosewood Hong Kong, and Hong Kong Ocean Park Marriott Hotel, among others. We also saw existing customers, including New China Laundry and A.S. Watson, increase their gas usage. For C&I customers such as Caritas Medical Centre and Shum Wan Laundry, we succeeded in having them replace their diesel boilers with gas boilers, which contributed to additional gas sales and helped to reduce carbon emissions.

Another project we secured during the year was the new H Zentre on Middle Road, the first purpose-built health and wellness hub in Hong Kong. For this customer, we offered a total application system that incorporates solar panels and gas-fired water heaters to reactivate their gas desiccant dehumidifier. With this system, the indoor air quality of medical centres and clinics in the building will be improved as it allows for precise adjustments in indoor humidity.

While developing the market for gas applications in hospitals, clinics, hotels and other commercial buildings, we have discovered that humidity control is an important factor in improving indoor air quality. Accordingly, our gas desiccant dehumidification system is an attractive solution for eliminating the damp air prevalent in Hong Kong and southern China throughout most of the year.

In the year ahead, we look forward to the new business opportunities arising from the expansion of Hong Kong International Airport. Several developments are under way with this project, including the new T3 terminal, East Hall expansion and AsiaWorld-Expo Phase 2 as well as new hotels, restaurants and shopping centres. All will have massive applications for gas cooking, water heating, absorption chillers and desiccant dehumidification.

SMART

Smart appliances are making their appearance at Towngas, ready for the smart kitchen of tomorrow.

Our TGC x Hello Kitty built-in hob with an adorable design provides a cooking experience the whole family can enjoy.

A Pioneer of Green Energy

In Hong Kong, we are utilising landfill gas as a renewable source of clean energy. The Alice Ho Miu Ling Nethersole Hospital was our first project based on this technology, with a combined heat and power (CHP) project utilising gas from the North East New Territories Landfill site.

The success of this project has sparked the interest of other hospitals in Hong Kong, and we have been working with the Hospital Authority to include CHP arrangements in the blueprint stage of their new hospital developments.

Product Development and Marketing

Our appliances continued to enjoy widespread acceptance among customers for their quality, innovative features and the expert backing of our service professionals. In 2019, sales of appliances increased by 2.4 per cent for a total of over 290,000 appliances sold. Our premium line of Mia Cucina kitchen cabinets also continued to grow in popularity with customers, including property developers. In 2019, we sold a total of about 4,400 kitchen cabinets for new property development projects.

In order to provide greater convenience and safety for our customers, we have put considerable resources into our smart kitchen concept. For customers who might leave a cooking appliance unattended, we have designed a model equipped with an add-on device that enables users to turn off the appliance with a mobile app if they forget to do so, even after leaving home. Another model automatically shuts off if it reaches a high pre-set temperature. In future, we plan to develop more smart appliance models and launch them in the market.

To create added value and provide an exciting new online shopping experience for customers, we will be launching a bonus point loyalty programme in 2020 on our e-commerce platform.

Reputation for Excellent Service

We have developed a strong reputation for our ability to provide a safe, reliable supply of gas as well as efficient and caring services.

During the year, we continued to focus on innovation as a means of improving productivity and service delivery. In particular, we are

Our new smart meters are designed for more convenient meter readings and more accurate billings.

The Towngas Cooking Centre collaborated with Institut Culinaire Disciples Escoffier to offer professional level classes to people who are passionate about cooking.

2019
Results of Towngas Service Pledge

Reliability

Uninterrupted gas supply *(over 99.99%)*
99.99%

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

Restoration of gas supply within 12 hours
99.98%

Service Quality

Efficiency*
8.95

Courteous and friendly attitude*
8.93

Safety

Emergency Team average arrival time *(within 25 minutes)*
Average 21.52 minutes

Speed and Convenience

Customer Service Hotline *(calls answered within 4 rings)*
96.66%

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

Deposit refunded at Customer Centres 2 hours after disconnection of gas supply *(upon customer's request)*
99.75%

Appointments

Availability of maintenance and installation services within 2 working days
Average 1.15 days

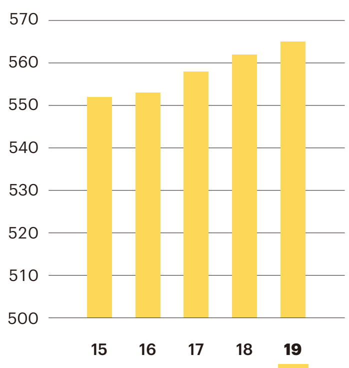
Handling Suggestions

Reply within 3 working days
100%

Resolution, or a statement of how and 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.*

Number of Customers per km of Mains
Company



looking at new developments in the Internet of Things and artificial intelligence for our operational equipment and devices.

One example is a smart meter equipped with Bluetooth, which has been installed in over 87,600 homes since its launch in May 2018. Customers can simply download a mobile app and link it to the smart meter, then the gas readings will be read and transmitted to our system via the Internet.

Our frontline staff offer efficient and comprehensive services that have earned high praise from customers, as demonstrated by the more than 5,900 complimentary letters we received in 2019. In recognition of our outstanding service quality, we received the 2019 Service Retailers of the Year – Quality Living Category Award from the Hong Kong Retail Management Association. We also won the Gold Award in the Mystery Caller Assessment Award – Commerce and Utilities for our Mia Cucina 24-hour Customer Service Hotline from the Hong Kong Call Centre Association.

Keeping Our Infrastructure Safe and Secure

Towngas takes the safety of customers seriously and has put in place a proactive maintenance and inspection regime that makes certain our gas network and infrastructure are highly safe and reliable.

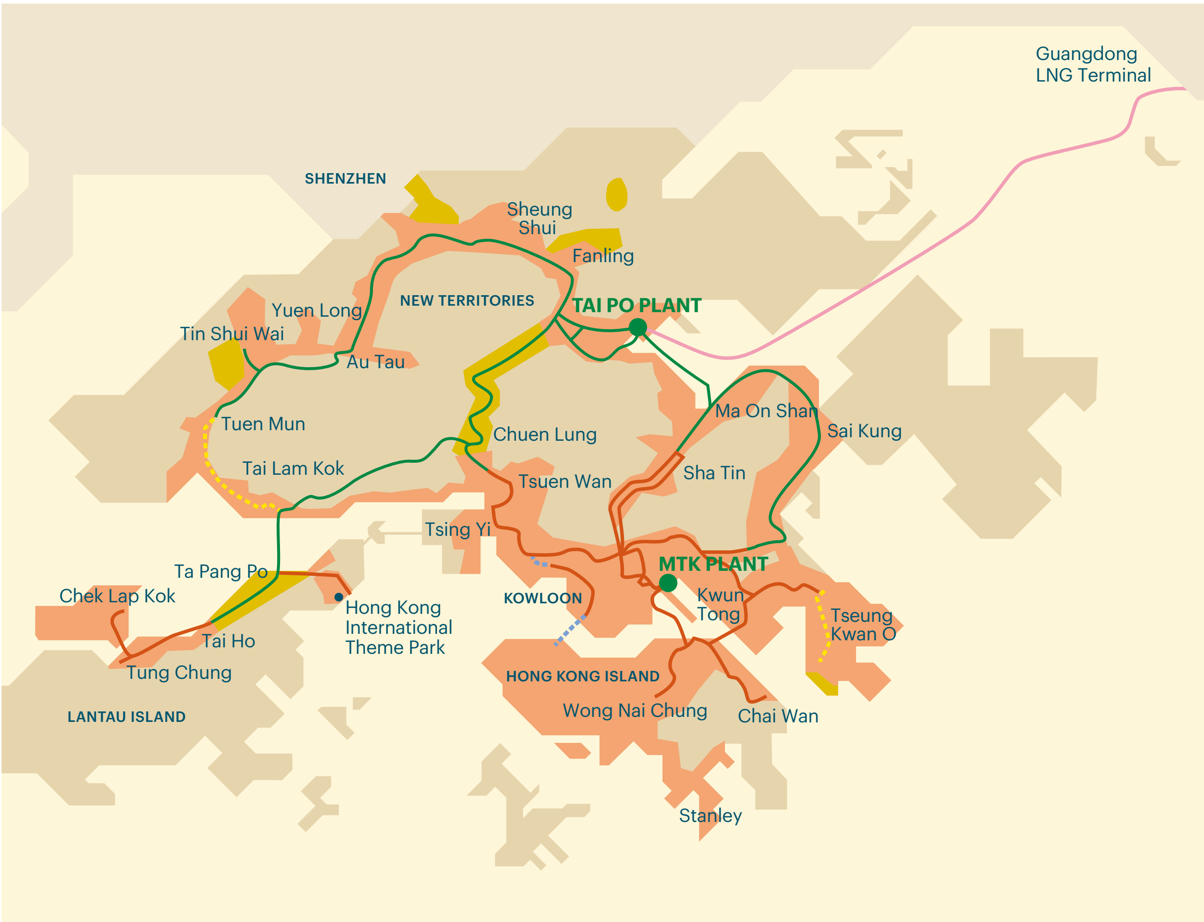
To ensure a reliable gas supply and network integrity, we undertake gas leakage surveys, closely monitor third-party construction activities and carry out timely pipe replacements. In 2019, the number of publicly reported leaks in the network reached a record low for the second consecutive year, while third-party damage and the gas leakage rate were kept at a low level.

In 2019, we continued to develop innovative tools that improve our operational efficiency. A mini-tunnelling machine was utilised for trenchless pipeline construction in congested areas where open-cut excavation is difficult. Together with our existing Little Swan remote-controlled excavator that reduces construction noise, these tools are helping to improve safety, efficiency and productivity, bring down costs and minimise nuisance to the public.

We have also introduced innovations that help to ensure the safety of our customers' homes as well as improve our service quality. These included a Drone Riser Inspector and a Long Range Camera with Laser Methane Gun,

The remote-controlled Little Swan excavator, which is equipped with a mobile muffler box, minimises noise at sites and makes night-time roadworks more efficient.

Towngas Network in Hong Kong



Existing areas of supply	Planned new areas of supply	Planned high pressure or intermediate pressure pipelines	High pressure or intermediate pressure pipelines under construction	Existing high pressure pipelines	Existing intermediate pressure pipelines	Existing submarine pipeline from Guangdong LNG Terminal to Tai Po plant

which allow our frontline technicians to remotely inspect gas service pipes with a high degree of accuracy. To improve the traceability of our records, our staff can now use a tablet or mobile phone to capture worksite details or record inspection results.

In 2019, we achieved another breakthrough for the quality and safety of our infrastructure with the first-time use of photogrammetry for pipelaying. Photogrammetry was used in a number of new distribution pipelaying contracts in 2019.

The new technique can produce a 3D image record that forms part of the as-built drawing of our network. With the photos that are taken, much more information on the pipeline installation can be captured, which is vital to determining network quality.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Advanced Biofuel from Bio-grease

Using its proven patented technology, ECO shipped over 24,000 tonnes of hydro-treated vegetable oil to Europe.

E New Energy and Diversified Businesses

Advanced Biofuel from Agricultural Waste

In a trial of ECO's first biomass utilisation project in Tangshan, Hebei province, we are getting ready to test our technology for producing cellulosic ethanol, an advanced biofuel made from agricultural waste.

Clean Coal Chemical Project

At ECO's plant in Inner Mongolia Autonomous Region, we are producing ethylene glycol, a premium chemical converted from syngas.

New Energy and Diversified Businesses

The core strategy of our new energy business is to turn low value feedstock into high value products through innovative technology. With a portfolio of proprietary technologies that continues to grow, we are making greater contributions to environmental protection.

Following a successful trial, the ECO plant in Zhangjiagang has begun ramping up the production of hydro-treated vegetable oil (HVO).

ECO: A Leader in Green Energy

Established in 2000 in Hong Kong, ECO Environmental Investments Limited (ECO) is our business platform for developing new forms of clean energy, advanced chemicals and new material products from waste feedstock. Our objective with ECO is to become a global leader in the green industry, providing solutions that address the environmental challenges associated with climate change.

Innovation that drives value creation is the cornerstone of ECO's business. In pursuit of this strategy, we have established research and development facilities in Shanghai and Jiangsu province. At these two facilities, our researchers develop products derived from biomass-based and recycled carbon-based materials, with a focus on advanced biofuels and eco-friendly materials.

From LNG to Advanced Biofuels

ECO's plant in Shanxi province is now in its 11th year of operation. This is where we convert coalbed methane extracted from neighbouring coal mines into liquefied natural gas (LNG).

Since coalbed methane is a potent greenhouse gas (GHG) if released into the atmosphere, this plant has addressed the issues of both climate change and excessive consumption of fossil fuels by not only producing clean-burning LNG but also reducing GHG emissions.

ECO utilises agricultural waste and converts it into high value products.

Using its own patented technologies, ECO produces hydro-treated vegetable oil (HVO) that helps to meet the EU's latest renewable energy targets under Renewable Energy Directive (RED) II and its commitment to reducing emissions under the Paris Agreement.

In 2019, after modification works to overcome a number of technical challenges, the ECO plant at Zhangjiagang, Jiangsu province started stepping up its daily production rate of HVO. Six shipments were delivered to Europe during the year, totalling more than 24,000 tonnes of HVO.

Also in 2019, ECO commenced construction of the second phase of this project, which will bring HVO production capacity to 250,000 tonnes per year. It is expected to be commissioned in mid-2020.

In addition to expanding its HVO plant in Zhangjiagang, ECO is exploring other possible sites for a new HVO plant in Southeast Asia.

ECO sees tremendous growth potential for this business, particularly with concerns over the possible threat to food security associated with existing biofuels that are mostly derived from food stock and feed. Instead, ECO utilises palm oil mill effluent and used cooking oil, both of which are considered waste residue, to produce HVO. After certification under the International Sustainability and Carbon Certification Scheme, the HVO produced by the plant is recognised as an advanced biofuel.

ECO has successfully developed an innovative technology for decomposing agricultural waste into its three basic components – cellulose, hemicellulose and lignin. The decomposed cellulose can be further processed into cellulosic ethanol, another advanced biofuel as defined under the RED II framework. The feedstock for our biomass project will mostly comprise agricultural waste such as corn cobs and straw. Previously, there was no effective solution for handling this type of waste. Although some waste would be returned to fields or used to generate power, this was only done in small quantities. By utilising this waste to produce advanced biofuels and high value chemical products, ECO is making the concept of turning waste into treasure a reality.

In 2019, construction proceeded on an agricultural waste utilisation plant in Tangshan, Hebei province as a pilot project for producing paper pulp and furfural and for testing ECO's proprietary hydrolysis technology. Trial production at this plant will begin in the first half of 2020.

Construction of a second plant in Cangzhou, Hebei province was also under way. Once in operation, it will be one of the very few plants of its kind in the world, producing not only cellulosic ethanol as an advanced biofuel, but also furfural as a green building block chemical. This plant is scheduled for completion by the end of 2020.

From Fuels to High Value Chemicals

At our plant in Ordos, Inner Mongolia Autonomous Region, ECO is producing both methanol and, since 2018, ethylene glycol as part of its clean coal chemical project. In addition, there are other opportunities for producing high value chemical products from coal while also minimising carbon emissions. One such opportunity is the production of dimethyl carbonate, which synthesises methanol with carbon monoxide in a more advanced carbonylation process.

With the continuing development of new technologies at ECO, we are confident that substantial improvements can be made to the traditional coal chemical utilisation technologies to provide much greater environmental benefits.

Business in Hong Kong

The past year was one of the most challenging for Hong Kong, due to the impact of the ongoing China-US trade disputes and social unrest throughout the latter half of 2019. Nevertheless, our aviation fuel and LPG filling station businesses continued to record stable performance during the year.

Our aviation fuel facility, which is under a 40-year franchise agreement with the Airport Authority Hong Kong, supplies fuel for aircraft at Hong Kong International Airport in Chek Lap Kok. This business operates eight tanks with a gross aviation fuel storage capacity of 264,000 cubic metres as well as a jetty with two berths for receiving fuel from Tuen Mun and delivering it to the Airport via two undersea pipelines. Now a major logistics base for aviation fuel in Hong Kong, it supplies approximately 6 million tonnes of fuel a year and remains one of the greatest profit generators for the Company.

Our five dedicated filling stations serve around 18,000 LPG taxis and most of the LPG minibuses in Hong Kong, 24 hours a day. These stations typically sell around 65,000 tonnes of LPG a year, accounting for about 30 per cent of Hong Kong's auto LPG market.

We also manage landfill gas projects in Hong Kong, using gas collected from strategic landfills in the North East New Territories and South East New Territories. In addition to reducing GHG emissions at the two sites, the treated landfill gas has contributed to the renewable portion of the Group's energy mix.

TGT provides a reliable bespoke cloud computing service at its world-class data centres in Hong Kong and mainland China.

Telecommunications

We operate telecommunications businesses both in Hong Kong and mainland China through Towngas Telecommunications Company Limited, a wholly-owned subsidiary of the Group, and its subsidiaries (collectively known as TGT). With its solid infrastructure and resources, TGT provides services to Hong Kong, mainland China and international telecommunications providers, operators, and enterprises.

The year 2019 marked TGT's 15th anniversary since its start as a small local data centre. Today, it has grown into a company with seven world-class data centres providing up to 16,000 server racks, strong connectivity and advanced data services such as fog and cloud computing.

Another competitive advantage of the Company in Hong Kong is TGT's Glass-in-Gas technology, which allows us to install optical fibres within our extensive gas pipe network for a more cost-effective, interference-free alternative to traditional road opening methods. This technology is now also being applied in mainland China, where our Technical Standards for Laying Fibre Casing Pipe in Gas Pipeline obtained the approval from the China Gas Association.

During the year, an associate company of TGT, Shenzhen Internet Exchange Co., Ltd., received several valued-added telecommunications service licenses in Shenzhen to provide services related to the Internet and data centre businesses in the city. TGT also formed a new joint venture company with its strategic partner in Beijing. The synergy effect of this partnership enables TGT to integrate its existing resources and accelerate the deployment of its connectivity business while also broadening its interests.

Moreover, TGT plans to set up a local sales team in Taiwan, aiming to establish a presence in this market in order to serve existing customers better, including telecommunications and cloud service providers in Taiwan.

During the year, TGT received the Innovative Data Centre – Gold Award from the Communications Association of Hong Kong (CAHK) at the 2019 CAHK STAR Awards and the Top Third Party Data Centre Award at the 14th China IDC Industry Annual Ceremony.

In future, TGT operations will continue to grow through the pursuit of new business opportunities in Hong Kong, mainland China and overseas as well as the introduction of innovative new technologies such as 5G to the market.

Information Technology

Our wholly-owned subsidiary, S-Tech Technology Holdings Limited (S-Tech), was established to provide our city-gas companies with information technology that supports customer service management.

Today, this business is engaged in cloud software development, solutions implementation and systems integration services that enable our city-gas businesses to manage their advanced customer service and gas piping network systems.

In 2019, S-Tech's online customer service management platform, Towngas Customer Information System (TCIS), covered 85 per cent of the Group's city-gas companies on the mainland. Among these companies, 85 per cent are now using the latest cloud version to reduce operational costs and provide superior service to more than 16 million end customers.

Also during the year, S-Tech cooperated with Shandong Jihua Gas Co., Ltd in Jinan, one of our major city-gas joint ventures in Shandong province, to introduce a new IT solution, Towngas Total Solution (TTS+). TTS+ is a comprehensive information system that seamlessly integrates Towngas' financial, engineering and purchasing systems with S-Tech's software, including TCIS 3.0, the Virtual Customer Centre (VCC) e-commerce platform, as well as the Towngas Management System and Geographic Information System. All these are relevant and useful IT systems for running gas companies' operations and enhancing customer service levels and productivity. Through this highly integrated TTS+ information system, gas companies can enjoy more flexible interconnections and optimised resources. This total solution was successfully launched in September.

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. These services include utilities installation, infrastructure construction and civil and building services engineering for public and private projects.

During the year, U-Tech acquired a district cooling mains construction contract from the Electrical and Mechanical Services Department at the Kai Tak development area. Other contracts secured in 2019 include U-Tech's second contract with Evergrande Group for MVAC installation works at their residential development in Cheung Sha Wan, as well as a new contract for the supply and installation of electrical works for Henderson Land's residential development at Kai Tak.

U-Tech's high quality services and safety standards are well recognised in the industry. In 2019, the Company received the Safety Performance Award – Construction from the Occupational Safety and Health Council for the sixth consecutive year.

Manufacturing

M-Tech Metering Solutions Company Limited (M-Tech) is a wholly-owned subsidiary of the Group that develops and markets smart gas meters. These smart commercial and residential meters, which are based on the latest technology, help to satisfy the demand for mobile payments, data management and accurate gas consumption measurement.

In late 2019, M-Tech collaborated with a well-known manufacturer of gas meters in mainland China to launch an advanced residential Narrowband Internet of Things (NB-IoT) smart meter, which replaces conventional IC card meters. This new meter works seamlessly with the Group's two major IT systems – TCIS and VCC – and is designed to ensure greater data security. It also enables gas companies to perform gas consumption analysis to identify peak-shaving distribution with daily data updates, while providing end-users with the latest smart metering functions, such as mobile payments and gas leakage safety alerts.

As this smart meter is already widely accepted in the mainland residential market, M-Tech has plans to develop a similar meter equipped with NB-IoT modules for the commercial market.

Another wholly-owned subsidiary of the Group, G-Tech Piping System (Zhongshan) Company Limited (G-Tech), supplies high quality polyethylene (PE) piping, fittings and related ancillary products. With the support of GH-Fusion Corporation Limited (GH-Fusion), a joint venture between Towngas and Fusion Group founded in the United Kingdom, specialising in PE fittings, G-Tech can provide clients with a comprehensive range of products for piping systems.

G-Tech operates eight piping extrusion lines in both its Zhongshan and Maanshan production plants. During the year, G-Tech set up a new distribution centre in Qingdao, Shandong province, thus substantially reducing the logistics costs and time for clients in the northern region. G-Tech now plans to set up more distribution centres in order to satisfy business development needs.

GH-Fusion also continued to explore new business opportunities in overseas markets, including Europe and Asia Pacific.

These automated facilities at G-Tech's manufacturing plant help to increase productivity and efficiency.


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20 Years of Volunteering

Our volunteer team has clocked over 960,000 hours of caring services to the community since its establishment in 1999.

A Greener Home

Our MasterCraft Volunteer Team participated in our Green Flame Project – Upcycling for a Greener Home to help improve the living environment of underprivileged families.

Corporate Social Responsibility

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Best Employer

Towngas was ranked in the top three Hong Kong companies among 2,000 global companies on the *Forbes* magazine list of World's Best Employers 2019.

Corporate Social Responsibility

As a leading utility company, we strive to set an example in the way we conduct our business, ensure the health and safety of our stakeholders, protect the environment and serve the community. Our ultimate objective as a socially and environmentally responsible organisation is to become the greenest, most esteemed company in Hong Kong and mainland China.

Towards a Sustainable Future

In our quest to become a more sustainable company, Towngas is guided by an overarching framework that sets out five focus areas for our sustainable development: Creating Business Opportunities; Ensuring Health and Safety; Protecting the Environment; Contributing to Stakeholders; and Strengthening Corporate Governance.

During the year, our businesses continued to support the four key Sustainable Development Goals (SDGs) of the United Nations. Covered under the UN's 2030 Agenda for Sustainable Development, the SDGs we have selected include Goal 6: Clean Water and Sanitation; Goal 7: Affordable and Clean Energy; Goal 11: Sustainable Cities and Communities; and Goal 13: Climate Action.

Our efforts to achieve greater sustainability in our operations have been widely recognised.

In 2019, we earned the Gold Award in the Manufacturing Sector at the BOCHK Corporate Environmental Leadership Awards organised by the Federation of Hong Kong Industries. This was the third time in four years that we have won this award. Moreover, the Business School of the Chinese University of Hong Kong released its fourth Hong Kong Business Sustainability Index, on which Towngas was ranked first among the 50 constituent companies. We were also the first

During the year, we established the MasterCraft Volunteer Team that helps to improve the living environments of disadvantaged families by using our professional skills in design and engineering.

company to achieve a score of 90 or above and reached the top level of "Exemplar".

Promoting Green Awareness

We are working to raise awareness of the importance of environmental protection both in the community and within our own operations.

A participant in our Plantation Enrichment Project takes care of tree seedlings.

Our staff volunteers play a key role towards this objective by organising projects that demonstrate how to lead a more sustainable lifestyle. One example was our Green Flame Project – Upcycling for a Greener Home in partnership with St. James' Settlement. In this project, our MasterCraft Volunteer Team joined primary school students to upcycle waste and create items such as wooden shelves and wall units to improve the living conditions of underprivileged families residing in cramped homes. The children taking part in the project also visited our landfill gas utilisation facility, where they learned about the renewable energy initiatives we are developing.

To help the next generation develop an interest in STEM subjects and learn more about the environmental challenges we face, Towngas organised the Inter-School Environmental Scientific Investigation Competition. Participating students conducted field experiments in hydroponics using equipment upcycled from our scrap polyethylene pipes. From this experiment, students were able to increase their environmental knowledge and enhance their problem-solving skills.

We also continued to work closely with green organisations during the year on programmes to promote environmental protection. One of these was a programme in which HK$20 was donated to a green group designated by the customer for every new registration in our eBilling service. Concurrently, we launched a publicity campaign to deliver green messages via public transport, radio and online media in order to encourage the public to live a greener lifestyle.

Internally, we organised a number of projects for raising green awareness among our employees. These included workshops to promote recycling and upcycling, a Low Carbon Flame Cooking Demo for green living, and seminars on air quality, biodiversity and food waste.

In order to stimulate innovative thinking on environmental protection, the Managing Director's Award in 2019 was organised under the theme, "Green Towngas".

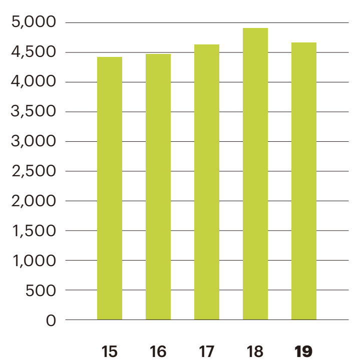
We also rolled out a programme inspired by a previous winning project, in which secondary school students were invited to submit designs for paintings to decorate the exterior of our gas governor kiosks to convey the message of green living in the community.

Embracing Innovation

Innovation is at the centre of our corporate culture, which together with implementation is an integral component of our philosophy of "Growth = innovation x implementation" for inspiring new ways of thinking that spur sustainable business growth. To that end, we focus on research and development and invite employees to propose their own ideas on how we can better achieve our sustainability objectives. During the year, the Group incurred over HK$170 million in total research and development related expenditures in Hong Kong and mainland China.

Revenue per Employee

Company (HK$ thousand)



CELEBRATION

To commemorate the 20th anniversary of the Towngas Volunteer Service Team, we organised a special luncheon and exhibition, which was attended by our community partners, social organisations and the beneficiaries of the Team's services.

In 2019, we continued a series of incentive programmes, including the Innovation Funding programme originally set up in 2016. Eligibility for Funding was extended to mainland China in 2019, enabling all employees across the Group to apply and bring their ideas to life. One of the ideas developed by our employees was a Water Heater Hydropower Generator Module that generates electricity from the normal water flow and stores it in a specially designed capacitor for flame ignition. Not only does this eliminate the pollution caused by the disposal of used batteries but also the inconvenience of having to replace them. Suitable for both new installations and for retrofitting existing water heaters, this innovative add-on device won the Innovation and Creativity Grand Award at the 2019 Hong Kong Awards for Industries.

Cultivating Integrity

In order to build and maintain the trust of stakeholders, it is essential that an organisation is, and is seen to be, ethical. Due to the efforts we make to promote integrity in our business, we at Towngas enjoy a good reputation for our high ethical standards. This was affirmed during the year when we received the Junzi Corporation Exemplary Award from the Hang Seng University of Hong Kong.

During the year, we continued to promote integrity in the workplace through a variety of activities, including more than 850 seminars and workshops for over 26,000 of our employees in Hong Kong and mainland China. A video and brochures with stories on ethical behaviour by employees were also produced. Other promotional initiatives included drawing, video and writing contests as well as an overseas learning trip to promote the understanding and application of integrity at work.

Warmth and Care for Our Community

We are committed to caring for the community and bringing much needed services that help to improve health, social integration and personal wellbeing.

The involvement of our employees in the community can be traced back to as early as the 1970s. In 1999, the Towngas Volunteer Service Team was officially established and, since then, has accumulated over 960,000 hours of service to more than 6.9 million beneficiaries.

Service from the Heart

In 2019, the Towngas Volunteer Service Team reached an important milestone – its 20th anniversary of service. Our volunteer services have continued to expand since the Team started, from serving the elderly to delivering festive foods, caring programmes for children and the disabled as well as organic farming, in a bid to deliver warmth and care to the community.

Our Chef Anchor programme was particularly helpful for those suffering from Mild Cognitive Impairment (MCI). Launched in 2017 with the Hong Kong Sheng Kung Hui Welfare Council, the innovative Chef Anchor programme was set up to alleviate the symptoms of MCI patients. It is the first procedural cooking training programme in Hong Kong to focus on MCI patients. To date, the programme has helped 200 elderly people to train their memory through its open-flame cooking classes, many of whom have shown encouraging results.

Supporting Those in Need

The Mad Dog Café charity programme is one of our signature charitable events to raise funds for installing electrical toilet washlets and bathroom ventilators in hostels for the elderly. In 2019, the event raised HK$450,000, bringing total donations up to HK$2.7 million since the launch of this charity programme in 2013.

The Towngas Gentle Breeze Movement is a programme established in 2013 to help schools in need in mainland China. To date, we have contributed more than RMB4 million in school supplies to remote areas in Jiangxi, Anhui, Jiangsu, Shandong, Guizhou, Shaanxi, Liaoning, Guangdong, Fujian, Hubei, Inner Mongolia and more.

In 2019, the programme was extended to Bazhong, Sichuan province and Qiqihar, Heilongjiang province. In this year's programme, we donated school uniforms, teaching aids and other necessities to about 340 teachers and students. We also set up Towngas China Charity Libraries and refurbished their school facilities to improve the learning environment.

Building a Sustainable Workforce

We understand that our continuing success as a sustainable business depends heavily on the value we place on our people and the investments we make in their professional skills, health, safety and wellbeing.

In return, we have been recognised as a leading employer not only in Hong Kong and mainland China, but globally. This was affirmed by *Forbes* magazine, which gave Towngas a 199 ranking out of 2,000 top global employers on its World's Best Employers 2019 list, putting us in the top three of all Hong Kong companies. We were also the first runner-up in Hong Kong's Most Attractive Employer of the 2019 Randstad Employer Brand Awards. These recognitions highlighted our exceptional performance in promoting family-friendly employment policies and our focus on staff development.

Towngas Gentle Breeze Movement helps to improve learning environments through the donation of school supplies.

2019 Environmental Performance (Hong Kong)

Water Quality

Total waste water output was 3.9 m^3/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

Air Quality

Total NOx output was 4 kg/TJ of town gas

Total SOx output was 0.01 kg/TJ of town gas

Total CO_2 output was 11.9 metric tonnes/TJ of town gas

Chemical Waste

Total chemical waste output was 3.1 kg/TJ of town gas

Greenhouse Gas Emissions

Greenhouse gas emissions from major gas production equipment was 357,060 metric tonnes in terms of CO_2 equivalent

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.

In common with other utility companies whose workers are ageing, we must also address the challenge of attracting new talent in order to build a sustainable workforce. Accordingly, we designated 2019 as the year for developing talent and recruiting young people.

Attracting New Talent

In the past two decades, Towngas has started a number of new businesses, so the need to attract new staff and replace existing staff who are retiring from our workforce has become paramount. Our recruitment efforts span different age groups and career categories. What's more, many of the positions we seek to fill, such as those in underground engineering, plant management and gas installations, are highly unique and technical.

We have been increasing our branding efforts to demonstrate that Towngas – even though we have a history of over 150 years – is a dynamic and innovative organisation in order to attract young talent who might harbour stereotypes about the Company.

To identify new talent, we have been expanding our sourcing channels, including earlier engagement with current university students and secondary school students. There is also the challenge of convincing many secondary school graduates that technical jobs can be rewarding career choices. We have therefore stepped up our recruitment efforts through school talks and visits as well as job experience opportunities for students.

To familiarise potential recruits with our businesses, our Towngas Engineering Academy (TEA) launched the Career in a Nutshell programme for secondary school students, which offers them training and job shadowing opportunities. The programme has become widely accepted, with 90 students already registered for the 2019/2020 academic year.

Every year, we hire students as interns so they can learn more about our businesses and corporate culture. To provide work experience in mainland China, we joined the Scheme on Corporate Summer Internship on the Mainland and Overseas 2019, championed by the HKSAR Government, and Operation Zhang Qian by the Maritime Silk Road Society. In this eight-week internship programme, students were posted to the different locations where we operate, namely Shenzhen, Zhongshan, Suzhou, Jinan, Zhangjiagang and Ordos. We also recruited student interns from the 2018 Scheme after their graduation to support our businesses in Hong Kong and mainland China.

Enhancing Employee Competencies

In addition to recruiting new staff, it is equally important to retain and develop our existing younger colleagues. This means understanding what motivates them and, in some cases, making their jobs more diversified and interesting. For example, we will involve younger staff in projects that are not necessarily related to their primary roles, or give them more leadership responsibilities as part of a clearly defined career path.

In order to develop future leaders, we continued the 18-month Towngas Leadership Competencies Acceleration Programme (TLC+), targeted at middle management staff. The focus of this programme is on business strategy and leadership. In 2019, a new batch of participants embarked on another round of this programme in their career development journey with us. A similar programme, the Young TLC+, was established in 2017 for younger staff across different businesses. It graduated its first cohort during the year.

To build a talent pipeline for our Network Operation teams, we launched our first Network Supervisor Trainee Programme in 2017. After two years of training in technical, communication and supervisory skills, the first batch of employees graduated in September 2019.

Our Career in a Nutshell programme introduces secondary school students to the gas industry with the aim of inspiring them to pursue a career with us.

Developing Gas Professionals

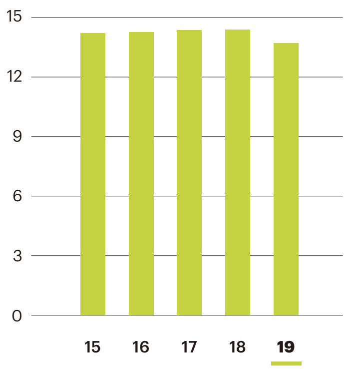
The TEA plays a significant role in gas education by providing engineering training for our employees and contractors in Hong Kong and mainland China, and also sharing professional knowledge with the industry and students.

To attract young people to the gas industry, TEA participates in a wide range of career expos and other promotional activities. It is also one of the founding members of the Hong Kong Electrical and Mechanical Trade Promotion Working Group, as well as the new Corporate Tech Academy Network, which promotes Vocational and Professional Education and Training for the development of a skilled and professional workforce. The promotional activities we carry out are in addition to our apprenticeship programme, whose graduates are trained into well-qualified technicians who play an instrumental role in ensuring gas safety.

We also share gas engineering knowledge with our stakeholders in collaboration with different institutions and professional bodies. Towngas was the first and only gas company accredited by the Hong Kong Institution of Engineers and the Institution of Gas Engineers and Managers to provide gas engineers in mainland China with recognised Hong Kong-equivalent training

Town Gas Sales per Employee

Company (million MJ)



that satisfies the stringent requirements of the two professional organisations. This accreditation demonstrates the consistent quality and credibility of our operations across Hong Kong and mainland China. Moreover, we have partnered with the Hong Kong Vocational Training Council to offer a professional diploma in Gas Engineering, which graduated its first batch of students in July 2019.

Staff Health and Wellbeing

We endeavour to create a work environment that is fair, inclusive and fulfilling, and which allows our people to enjoy a rewarding career in balance with their personal lives.

In response to employee feedback, we made plans to introduce flexible hours for office staff in 2020, including flexible lunch-time arrangements, as part of our commitment to promote work-life balance. We also introduced Community Service Leave so that employees who support our volunteer services can enjoy an extra day-off. Moreover, we enhanced our paid annual leave provisions and gas allowance scheme.

For longer-term retirement planning, we introduced an additional Mandatory Provident Fund (MPF) scheme by providing more fund choices for our current MPF scheme members.

Physical fitness under the theme "Fit for Life" was a primary focus of our staff activities in 2019. In order to promote a balanced and healthy lifestyle, we organised talks and workshops with doctors, physiotherapists and other medical practitioners on health awareness and stress management. On-site health checks and consultations were also held in our workplaces. To keep our staff healthy ahead of the flu season, we launched the Flu Prevention Campaign and offered staff members and their family subsidised flu shots.

Occupational Health and Safety

Once again, one of the highlights of the year was our annual HSE Walk. Held in June in Hong Kong with our joint venture partners in mainland China, it is organised for raising awareness of the importance of workplace safety and health. This year, more than 14,000 staff and family members joined the campaign.

During the year, we organised the Contractor Occupational Safety and Health (OSH) Programme, which includes the Contractor Site Safety Award to recognise contractors with good safety performance and safe site conditions. Along with this event, we held the Contractor OSH Forum in which professionals from the Electrical and Mechanical Services Department, Hong Kong Physiotherapist's Union and Occupational Safety and Health Council delivered talks on gas safety, prevention of work-related musculoskeletal disorders as well as working safely above ground. Over 200 contractors participated in the forum.

In our Quarterly OSH Programme, we highlighted topics such as ergonomics, preparedness for adverse weather and infectious disease. While the Joint Utilities Safety and Occupational Health Policy Group was under the chairmanship of Towngas in 2018/2019, we communicated OSH issues to the government, Occupational Safety and Health Council and other utility companies. We also hosted a forum on the future of OSH for the industry, during which participants exchanged their experiences on improving OSH performance.

In 2019, Towngas became one of the first city-gas companies to achieve ISO 45001: 2018 certification in its overall operations and was also recertified for the International Safe Workplace Programme.

Supplier Relationships

In 2019, we assessed our strategic suppliers against our requirements on corporate social responsibility (CSR) and conducted follow-up site visits with key suppliers in order to identify opportunities for improving their performance. In Hong Kong, we invited 33 long-term partners to complete our CSR assessment so that we could ascertain whether their commitment to CSR was still on track.

From August to December 2019, over 350 suppliers were invited to join our face-to-face communication sharing sessions in Hong Kong on integrating corporate ethics into their daily operations. These suppliers were also invited to use the new e-Tendering System, which not only helps to reduce the use of paper but is also an effective monitoring tool for the tendering process.

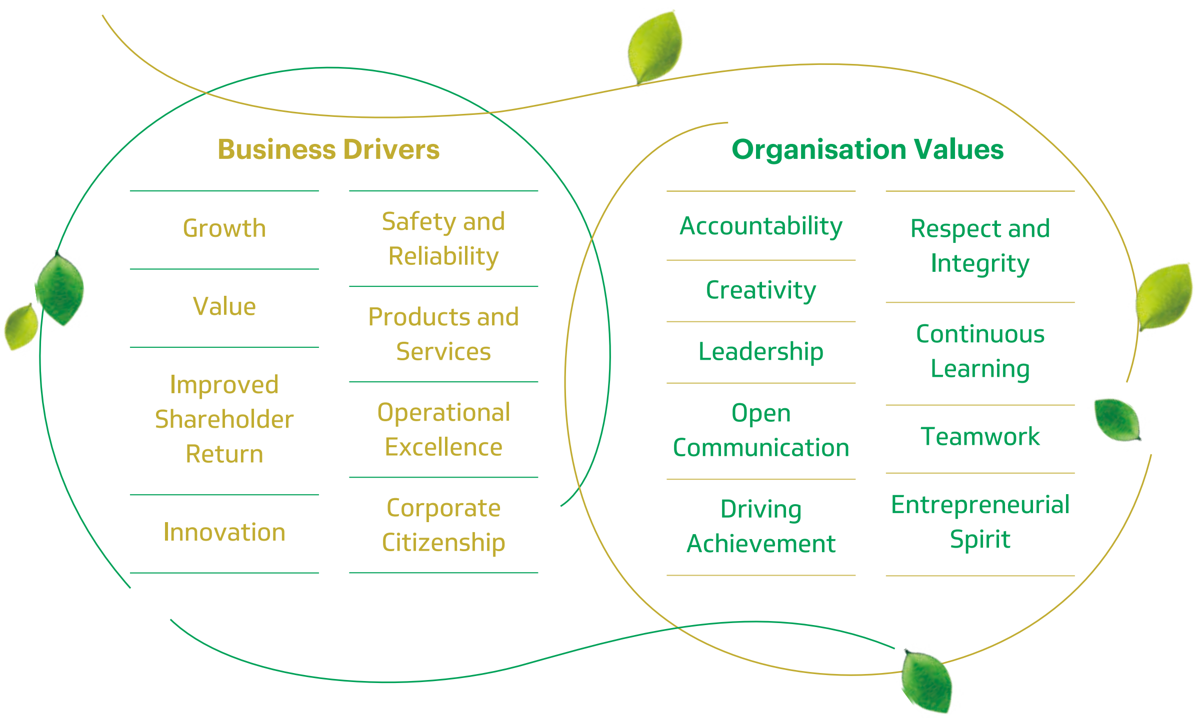
During the year, Towngas became the first utility in Hong Kong to be verified by BSI, an international business improvement and standards company, which determined we were in compliance with ISO 20400 Sustainable Procurement guidance standards. We also continued to work closely with our suppliers who are part of our green supply chain to help them comply with our procurement policy.

Creating Long-term Value for our Stakeholders

At Towngas, we are focused on creating long-term value for all our stakeholders, including our investors, associates, suppliers, the people we employ and the communities we serve. This is critical to our success as a company and fundamental to the way we do business.

We pay particular attention to the issues raised by our stakeholders in our ongoing engagement with them. Their views help us in shaping our policies and practices with regard to sustainability and provide us with insights on how we can improve our environmental, social and governance performance. In doing so, we are continually raising our standards of social and ethical behaviour and encourage our staff, suppliers, contractors and peers in the industry to do the same.

In future, we will continue to aspire towards fulfilling our vision of being "Asia's leading clean energy supplier and quality service provider, with a focus on innovation and environmental-friendliness."



Business Projects in 2019

Utility Businesses in Mainland China

	Year of Establishment	Project Investment Rmb M	Registered Capital Rmb M	Equity Share %
Towngas Piped City-Gas Projects				
Guangdong Province				
Panyu	1994	260	105	80%
Zhongshan	1995	240	96	70%
Dongyong	1998	178	75	83%
Shenzhen	2004	–	2,877	26%
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	94%
Hangzhou	2013	2,988	1,195	24%
Shandong Province				
Jinan East	2003	610	470	49%
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%
Hainan Province				
Qionghai	2008	110	50	49%
Midstream Projects				
Guangdong LNG	2004	8,595	2,578	3%
Anhui NG	2005	–	336	21%
Hebei NG	2005	5,040	1,680	43%
Jilin NG	2007	360	220	49%
Henan NG	2012	125	60	49%
Jintan NG (Phase 1)	2013	300	200	39%
Jintan NG (Phase 2)	2018	890	300	100%
Huanghua Port LNG	2017	90	90	20%
Taizhou (District High Pressure Network)	2019	450	150	48%
LNG Refilling Station				
Nanjing (Marine)	2014	600	217	33%

Water/Waste Treatment Projects

	Year of Establishment	Project Investment Rmb M	Registered Capital Rmb M	Equity Share %
Wujiang	2005	2,450	860	80%
Suzhou Industrial Park	2005	3,600	1,200	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	832	832	27%

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
Laoshan Bay
Zibo
Zibo Lvbo
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
Maanshan Economic and Technological Development Zone South District
Zhengzhou Xinmi Yinji International Tourism Resort
Shenzhen Gas Building
Dangtu Economic Development Zone Northern District
Lishui Songyang Wangcun Industrial Park
Tangshan Fengnan Lingang Economic Development Zone
Anhui Electricity Company
Changzhou Photovoltaic Industrial Park

Other Projects

Zhuojia Public Engineering
Towngas Natural Gas Sales
U-Tech (Guang Dong) Engineering
Liaoning Clean Energy Group

New Energy and Other Projects

	Year of Establishment	Project Investment Rmb M	Registered Capital Rmb M	Equity Share %
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	1,713	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 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 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%
Jiangsu Xuzhou	2015	40	20	80%
Anhui Maanshan	2006	15	11	30%
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%

	Year of Establishment	Project Investment Rmb M	Registered Capital Rmb M	Equity Share %
New Energy Projects				
Coal Logistics Project				
Shandong Jining Jiaxianggang Logistics Port	2011	540	180	88%
Biomass				
Zhangjiagang	2014	850	392	100%
Hubei Jingzhou	2017	170	134	100%
Luanzhou	2017	280	140	100%
Cangzhou (Biofuel)	2019	380	200	100%
Oilfield Project				
Phetchabun Province in Thailand	2012	USD 181M	USD 12,000	100%
Telecommunication Projects				
Shandong Jinan	2007	80	40	90%
Shandong Jinan Chibo	2009	504	168	87%
Shandong Laiyang	2011	14	USD 1.6M	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	99%
Dongguan	2013	240	80	60%
Shenzhen (Qianhai)	2014	359	180	100%
Shenzhen (Interlink Connectivity)	2015	100	40	30%
Yingtong TGT Network Services (Shenzhen)	2019	250	100	49%
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	60	100%
GH-Fusion	2001	87	43	50%
G-Tech	2012	77.5	41	100%
S-Tech (Wuhan)	2011	90	51	100%
S-Tech (Zhuhai)	2014	14	7	100%
ECO Engineering Management (Shenzhen)	2014	30	15	100%
Towngas Life Style	2015	14	10	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	339	240	100%
Towngas Agriculture Investment (Nanjing)	2019	–	30	100%

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 2019, the global economy went through a synchronised slowdown. The International Monetary Fund further downgraded its expectations for world economic growth by 0.3 per cent to 2.9 per cent for the year, the slowest pace since the global financial crisis of 2008. China-US trade disputes continued to hammer economic growth and heightened risk in the business environment. Key risks to economic growth include the build-up of trade and geopolitical tensions among major economies, 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 could continue to affect recent improvements in the global economy.

In Hong Kong, the persistence of social unrest during the fourth quarter of the year took a heavy toll on economic sentiment as well as consumption and tourism related activities. Hong Kong's GDP contracted by 2.9 per cent in Q4 2019 from a year earlier, following the decrease of 2.8 per cent in Q3 2019, marking two consecutive quarters of year-on-year contraction. As a result, annual GDP decreased by 1.2 per cent, the first decline in a decade.

In 2019, the number of visitors dropped by 14.2 per cent compared with the increase of 11.4 per cent in 2018, with arrival figures dropping to 56 million from 65 million the year before. The number of overnight visitors tumbled by 18.8 per cent to 24 million. The average hotel occupancy rate fell to 79 per cent in 2019, down from 91 per cent in 2018. Total retail sales value decreased by 11.1 per cent compared with an increase of 8.7 per cent in 2018. For Q4 2019, the volume of retail sales fell by 24.1 per cent compared with the same quarter last year, representing the largest quarterly decline on record.

The unemployment rate increased to 3.1 per cent in Q4 2019, against 2.7 per cent in Q4 2018. Despite the negative impact of the US tariff increase on the Chinese economy as a result of the trade disputes, China's GDP grew in line with market expectations at 6.1 per cent in 2019, which marked the lowest annual growth rate in 29 years.

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 response to incidents associated with the social disturbances in Hong Kong, a management taskforce was set up to monitor events and followed up with immediate action.

We also put in place mitigating measures to enhance the safety and security controls on our premises and gas facilities while continuing to review the potential impact of incidents on our workforce. Furthermore, we are constantly exploring new gas applications and new business opportunities to achieve business diversification 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 includes the possibility of 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 a natural gas storage facility at our underground salt caverns in Jiangsu province. New energy sources have also become available, including natural gas from Russia which started to supply northern and northeastern China in late 2019.

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 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. Furthermore, the development of new regulatory requirements in mainland China relating to information security is also under close scrutiny for proper compliance.

Ethics and Integrity

Maintaining strong corporate governance standards and operating ethically are among management's top 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 2019, the Group had a net current borrowings position of HK$1,233 million (31st December 2018: HK$1,573 million) and long-term borrowings of HK$28,696 million (31st December 2018: HK$27,609 million). In addition, banking facilities available for use amounted to HK$15,700 million (31st December 2018: HK$13,300 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 July 2019, the Programme was updated with the size increased to US$3 billion. Up to 31st December 2019, the Group issued notes in the total nominal amount of HK$14,756 million (31st December 2018: HK$14,398 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 2019 was HK$14,049 million (31st December 2018: HK$13,708 million).

As at 31st December 2019, the Group's borrowings amounted to HK$37,936 million (31st December 2018: HK$38,022 million). While the notes mentioned above together with the bank and other loans of HK$6,862 million (31st December 2018: HK$3,624 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$9,759 million (31st December 2018: HK$12,453 million) were long-term bank loans and HK$7,266 million (31st December 2018: HK$5,887 million) had maturities within one year on revolving credit or term loan facilities. As at 31st December 2019, the maturity profile of the Group's borrowings was 24 per cent within 1 year, 15 per cent within 1 to 2 years, 36 per cent within 2 to 5 years and 25 per cent over 5 years (31st December 2018: 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).

The RMB, AUD and JPY notes 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.

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. On 28th January 2019, the "First Call Date", all of the Perpetual Capital Securities were redeemed at their principal amount. In February 2019, the Group issued new perpetual capital securities of US$300 million and the proceeds were mainly used to refinance the Perpetual Capital Securities redeemed in January 2019. The newly issued 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, and these perpetual capital securities are redeemable at the Group's option on or after 12th February 2024, they are accounted for as equity in the financial statements. The new perpetual capital securities are guaranteed by the Company. The issuance helps strengthen the Group's financial position, improve its financing maturity profile and diversify its funding sources.

The gearing ratio [net borrowing / (shareholders' funds + perpetual capital securities + net borrowing)] for the Group as at 31st December 2019 remained healthy at 31 per cent (31st December 2018: 29 per cent).

Contingent Liabilities

As at 31st December 2019 and 31st December 2018, 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

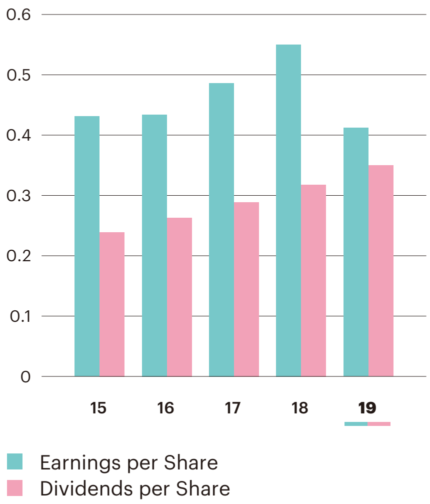
The Group's operations and activities are predominantly based in Hong Kong and mainland China. As such, its cash, cash equivalents or borrowings are mainly denominated in Hong Kong dollars, Renminbi or United States dollars, whereas borrowings for the Group's subsidiaries, associates and joint ventures 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 2019, the relevant investments in securities amounted to HK$705 million (31st December 2018: HK$812 million). The performance of the Group's financial investments in securities was satisfactory.

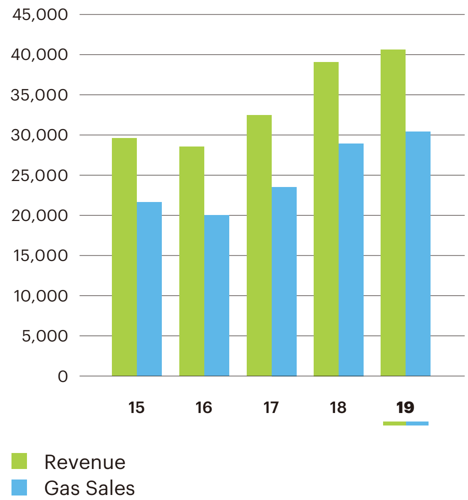
Five-Year Financial Statistics

Earnings and Dividends per Share (HK$)

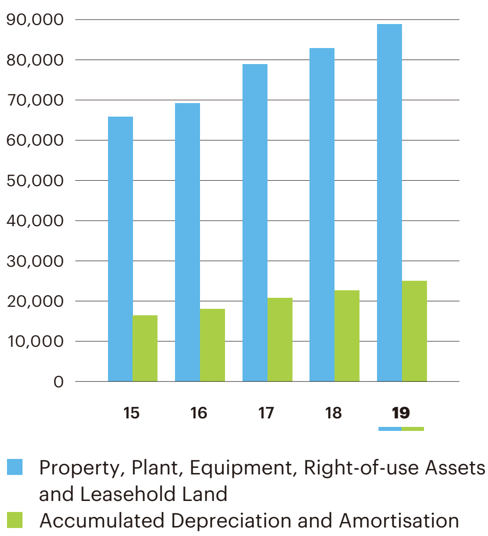


Revenue and Gas Sales

(HK$ million)

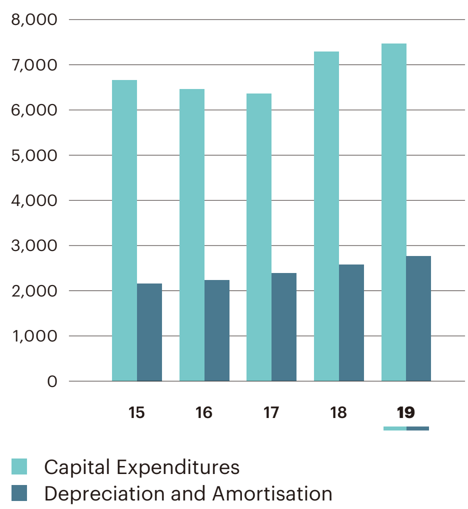


Property, Plant, Equipment, Right-of-use Assets and Leasehold Land (HK$ million)



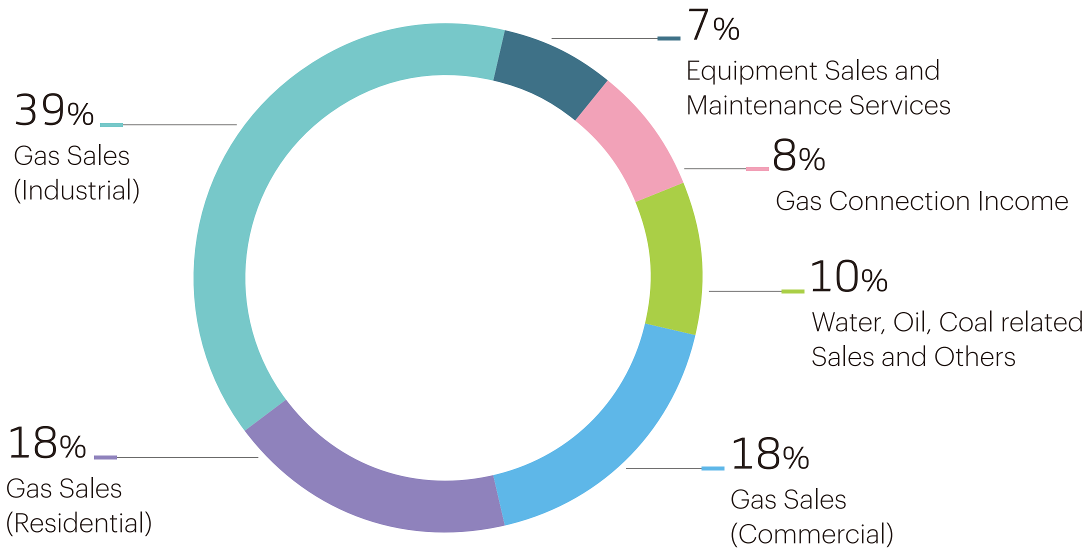
Capital Expenditures

(HK$ million)

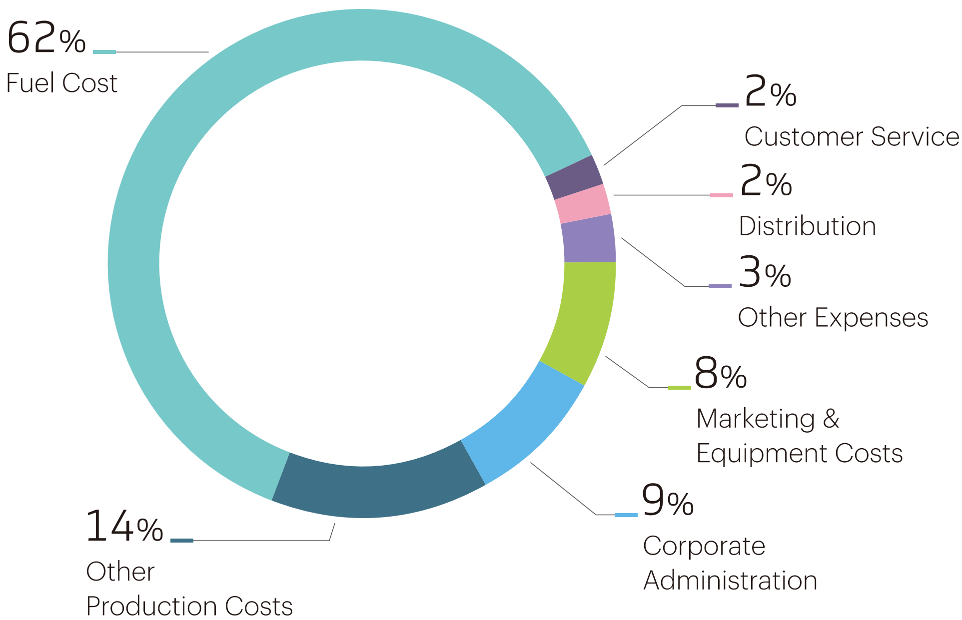


2019 Financial Analysis

Analysis of Revenue



Analysis of Expenditures



Comparison of Ten-Year Results

	2019	2018	2017
Highlights (Company)			
Number of Customers as at 31st December	**1,933,727**	1,908,511	1,883,407
Town Gas Sales, million MJ	**28,712**	29,550	29,049
Installed Capacity, thousand m^3 per day	**12,596**	12,596	12,596
Maximum Daily Demand, thousand m^3	**6,058**	7,255	6,191
Revenue and Profit	**HK$ M**	HK$ M	HK$ M
Revenue	**40,628.1**	39,073.0	32,476.5
Profit before Taxation	**10,403.9**	12,339.5	11,096.7
Taxation	**(2,289.6)**	(1,907.6)	(1,749.8)
Profit after Taxation	**8,114.3**	10,431.9	9,346.9
Holders of Perpetual Capital Securities	**(98.6)**	(107.4)	(111.2)
Non-controlling Interests	**(1,050.0)**	(1,011.7)	(1,010.4)
Profit Attributable to Shareholders	**6,965.7**	9,312.8	8,225.3
Dividends	**5,923.8**	5,385.3	4,895.7
Assets and Liabilities			
Property, Plant, Equipment, Right-of-use Assets and Leasehold Land	**63,807.9**	60,193.3	58,056.7
Investment Property	**830.0**	778.0	764.0
Intangible Assets	**5,291.1**	5,682.1	5,883.6
Associates	**27,475.5**	26,314.1	23,393.4
Joint Ventures	**10,613.5**	10,950.3	10,889.2
Non-current Financial Assets *	**8,172.5**	4,633.7	4,289.9
Other Non-current Assets	**4,150.2**	3,529.4	3,419.3
Current Assets	**20,129.4**	20,612.2	24,365.8
Current Liabilities	**(26,167.5)**	(26,150.9)	(31,948.1)
Non-current Liabilities	**(38,905.9)**	(36,348.9)	(28,867.9)
Net Assets	**75,396.7**	70,193.3	70,245.9
Capital and Reserves			
Share Capital	**5,474.7**	5,474.7	5,474.7
Share Premium	**–**	–	–
Reserves	**54,841.9**	53,387.1	51,746.9
Proposed Dividend	**3,892.8**	3,538.9	3,217.2
Shareholders' Funds	**64,209.4**	62,400.7	60,438.8
Perpetual Capital Securities	**2,384.2**	–	2,354.1
Non-controlling Interests	**8,803.1**	7,792.6	7,453.0
Total Equity	**75,396.7**	70,193.3	70,245.9
Earnings per Share, HK Dollar #	**0.41**	0.55	0.49
Dividends per Share, HK Dollar #	**0.35**	0.32	0.29
Dividend Cover	**1.18**	1.73	1.68

* *Non-current 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 2019*

2016	2015	2014	2013	2012	2011	2010
1,859,414	1,839,261	1,819,935	1,798,731	1,776,360	1,750,553	1,724,316
28,814	28,404	28,835	28,556	28,360	28,147	27,578
12,596	12,596	12,260	12,260	12,260	12,260	12,260
6,964	6,172	6,571	6,283	6,403	6,742	6,191
HK$ M	HK$ M	HK$ M	HK$ M	HK$ M	HK$ M	HK$ M
28,557.1	29,591.3	31,614.7	28,245.9	24,922.5	22,426.8	19,375.4
9,845.7	9,906.0	9,874.6	9,410.8	9,885.6	8,068.7	7,086.7
(1,575.9)	(1,726.7)	(1,771.4)	(1,655.2)	(1,484.6)	(1,344.0)	(1,038.8)
8,269.8	8,179.3	8,103.2	7,755.6	8,401.0	6,724.7	6,047.9
(110.5)	(110.5)	(102.2)	–	–	–	–
(818.6)	(766.8)	(891.8)	(901.8)	(688.9)	(575.1)	(463.1)
7,340.7	7,302.0	7,109.2	6,853.8	7,712.1	6,149.6	5,584.8
4,450.9	4,046.6	3,679.7	3,345.9	3,041.7	4,147.8	2,513.8
51,226.2	49,417.5	51,353.6	47,002.3	41,914.1	33,606.3	27,825.8
729.0	713.0	683.0	646.0	540.0	518.0	501.0
5,572.4	5,819.5	5,858.5	5,253.3	3,845.4	3,434.8	2,575.6
20,485.0	19,591.9	17,572.5	17,015.1	16,307.1	12,706.8	10,802.2
9,226.5	9,288.2	9,033.8	8,939.0	9,103.6	8,964.7	7,768.8
4,967.1	4,567.0	2,599.7	2,937.3	3,078.6	3,110.6	3,441.2
3,366.3	2,533.3	2,668.3	2,913.5	2,710.6	2,734.5	2,791.9
21,170.9	23,632.9	24,641.5	21,688.7	21,437.8	19,955.1	16,957.6
(19,547.5)	(23,180.6)	(20,689.6)	(19,261.8)	(17,252.9)	(13,403.4)	(16,523.4)
(34,297.9)	(30,269.8)	(31,497.6)	(30,762.9)	(31,334.1)	(25,353.3)	(14,932.1)
62,898.0	62,112.9	62,223.7	56,370.5	50,350.2	46,274.1	41,208.6
5,474.7	5,474.7	5,474.7	2,389.9	2,172.6	1,975.1	1,795.6
–	–	–	2,861.0	3,078.3	3,275.8	3,455.3
45,532.6	44,707.7	44,735.7	42,418.0	37,952.1	33,075.4	30,561.3
2,924.9	2,659.0	2,417.8	2,198.7	1,998.8	3,199.7	1,651.9
53,932.2	52,841.4	52,628.2	49,867.6	45,201.8	41,526.0	37,464.1
2,353.8	2,353.8	2,353.8	–	–	–	–
6,612.0	6,917.7	7,241.7	6,502.9	5,148.4	4,748.1	3,744.5
62,898.0	62,112.9	62,223.7	56,370.5	50,350.2	46,274.1	41,208.6
0.43	0.43	0.42	0.41	0.46	0.36	0.33
0.26	0.24	0.22	0.20	0.18	0.25	0.15
1.65	1.80	1.93	2.05	2.54	1.48	2.22

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 2019 which are to be presented at the Annual General Meeting to be held at Hall 3F (Harbour Road Entrance), Hong Kong Convention and Exhibition Centre, 1 Expo Drive, Wanchai, Hong Kong on Friday, 5th June 2020.

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 2019 are set out in the consolidated income statement and the consolidated statement of comprehensive income on pages 92 and 93 of this Annual Report respectively.

An interim dividend of HK12 cents per share was paid to shareholders on 2nd October 2019 and the Directors recommend a final dividend of HK23 cents per share payable on 23rd June 2020 to shareholders whose names are on the register of members of the Company on 15th June 2020.

Bonus Issue of Shares

The Directors recommend a bonus issue of shares on the basis of one bonus share for every twenty existing shares held by shareholders whose names are on the register of members of the Company on 15th June 2020. 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 2019 (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 2 to 65 of this Annual Report. Description of the possible risks and uncertainties that the Group may be facing are set out on pages 58 to 59. 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 20 to 57 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 2019 amounted to HK$14,442,000,000 (2018: HK$14,819,000,000) before the proposed final dividend for the year ended 31st December 2019.

Shares Issued

During the year, the Company issued 1,538,641,113 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$7,200,000 (2018: HK$4,800,000).

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. Lee Ka-kit (Chairman)**
Mr. Lee Ka-shing (Chairman)**
Dr. Colin Lam Ko-yin

Independent Non-executive Directors

Dr. the Hon. Sir David Li Kwok-po
Prof. Poon Chung-kwong
Dr. Moses Cheng Mo-chi***

Executive Directors

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

* *Dr. the Hon. Lee Shau-kee retired as Chairman of the Board and Non-executive Director with effect from the conclusion of the annual general meeting of the Company held on 28th May 2019 (the "2019 AGM").*
** *Dr. Lee Ka-kit and Mr. Lee Ka-shing were appointed as Joint Chairmen of the Board with effect from the conclusion of the 2019 AGM.*
*** *Dr. Moses Cheng Mo-chi was appointed as Independent Non-executive Director on 14th January 2019.*

At the 2019 AGM, Dr. Colin Lam Ko-yin, Mr. Lee Ka-shing, Mr. Peter Wong Wai-yee and Dr. Moses Cheng Mo-chi were re-elected as Directors of the Company. Dr. Lee Ka-kit, Dr. the Hon. Sir David Li Kwok-po, Prof. Poon Chung-kwong and Mr. Alfred Chan Wing-kin held office throughout the year. Dr. Moses Cheng Mo-chi was appointed as Independent Non-executive Director on 14th January 2019. Dr. the Hon. Lee Shau-kee retired as Chairman of the Board and Non-executive Director with effect from the conclusion of the 2019 AGM. Dr. Lee Ka-kit and Mr. Lee Ka-shing were appointed as Joint Chairmen of the Board (respectively and individually called "Chairman of the Board") with effect from the conclusion of the 2019 AGM.

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. Lee Ka-kit, Dr. the Hon. Sir David Li Kwok-po and Mr. Alfred Chan Wing-kin are due to retire by rotation at the forthcoming Annual General Meeting and, being eligible, offer themselves 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 14 to 18 of this Annual Report.

Disclosure of Interests

A. Directors

As at 31st December 2019, 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)

		Interest in Shares				
Name of Company	Name of Director	Personal Interests	Corporate Interests	Other Interests	Aggregate Interests	%*
The Hong Kong and China Gas Company Limited	Dr. Lee Ka-kit			7,028,292,718 (Note 2)	7,028,292,718	41.53
	Mr. Lee Ka-shing			7,028,292,718 (Note 2)	7,028,292,718	41.53
	Dr. the Hon. Sir David Li Kwok-po	50,066,109			50,066,109	0.30
	Mr. Alfred Chan Wing-kin	322,697 (Note 5)			322,697	0.00
	Prof. Poon Chung-kwong	220,486 (Note 4)			220,486	0.00
Lane Success Development Limited	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. Lee Ka-kit			2 (Note 7)	2	100
	Mr. Lee Ka-shing			2 (Note 7)	2	100
Towngas China Company Limited ("Towngas China")	Dr. Lee Ka-kit			1,945,034,864 (Note 8)	1,945,034,864	67.76
	Mr. Lee Ka-shing			1,945,034,864 (Note 8)	1,945,034,864	67.76
	Mr. Alfred Chan Wing-kin	3,881,901			3,881,901	0.14
	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.*

Save as mentioned above, as at 31st December 2019, 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.

Disclosure of Interests (Continued)

B. Substantial Shareholders and Others (Long Positions)

As at 31st December 2019, 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 Individual / 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)	Dr. the Hon. Lee Shau-kee (Note 3)	7,028,292,718	41.53
	Disralei Investment Limited (Note 1)	3,912,669,216	23.12
	Timpani Investments Limited (Note 1)	5,432,374,683	32.10
	Faxson Investment Limited (Note 1)	7,028,292,718	41.53
	Henderson Land Development Company Limited (Note 1)	7,028,292,718	41.53
	Henderson Development Limited (Note 1)	7,028,292,718	41.53
	Hopkins (Cayman) Limited (Note 2)	7,028,292,718	41.53
	Riddick (Cayman) Limited (Note 2)	7,028,292,718	41.53
	Rimmer (Cayman) Limited (Note 2)	7,028,292,718	41.53
Persons other than Substantial Shareholders	Macrostar Investment Limited (Note 1)	1,595,918,035	9.43
	Chelco Investment Limited (Note 1)	1,595,918,035	9.43
	Medley Investment Limited (Note 1)	1,519,705,467	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 2019, 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:

1. These 7,028,292,718 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.
2. These 7,028,292,718 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.
3. These 7,028,292,718 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.
4. These 220,486 shares were jointly held by Prof. Poon Chung-kwong and his spouse.
5. These 322,697 shares were jointly held by Mr. Alfred Chan Wing-kin and his spouse.
6. 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. Lee Ka-kit and Mr. Lee Ka-shing were taken to be interested in HLD and the Company as set out in Notes 1 and 2 by virtue of Part XV of the SFO.
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. Lee Ka-kit and Mr. Lee Ka-shing were taken to be interested in HLD and the Company as set out in Notes 1 and 2 by virtue of Part XV of the SFO.
8. These 1,945,034,864 shares in Towngas China representing approximately 67.76% of the total issued shares in Towngas China were beneficially owned by Hong Kong & China Gas (China) Limited (as to 1,777,488,912 shares), Planwise Properties Limited (as to 164,742,704 shares) and Superfun Enterprises Limited (as to 2,803,248 shares), wholly-owned subsidiaries of the Company. Dr. Lee Ka-kit and Mr. Lee Ka-shing were taken to be interested in the Company as set out in Notes 1 and 2 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 2019 and as at 31st December 2019 were as follows:

Mr. Alfred Chan Wing-kin and Mr. Peter Wong Wai-yee, 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, the Company had the following connected transaction which, as disclosed by way of announcement, was subject to the reporting and announcement requirements but exempt from independent shareholders' approval requirements under Chapter 14A of the Listing Rules since each of the applicable percentage ratios was less than 5%:

As disclosed in an announcement dated 29th November 2019, U-Tech Engineering Company Limited, a wholly-owned subsidiary of the Company, had by signing and returning to Hongkong Island Construction Properties Co., Limited ("Hongkong Island Construction"), a wholly-owned subsidiary of Henderson Land Development Company Limited ("HLD"), a letter of award on 29th November 2019 successfully tendered for a sub-contract for the carrying out of the electrical and extra-low voltage installation works at the residential development situated at New Kowloon Inland Lot No. 6565 at Kai Tak, Kowloon, Hong Kong at the sum of HK$173,600,000 for Hongkong Island Construction. As Hongkong Island Construction is a wholly-owned subsidiary of HLD, which in turn is a controlling shareholder of the Company, Hongkong Island Construction is a connected person of the Company under the Listing Rules and the aforesaid transaction therefore constituted a connected transaction for the Company under Chapter 14A of the Listing Rules.

The related party transactions set out in Note 40 to the consolidated financial statements include transactions that constitute connected transactions or continuing connected transactions under the Listing Rules for which the disclosure requirements in accordance with Chapter 14A of the Listing Rules had been met.

Directors' Material Interests in Transactions, Arrangements or Contracts

Except for the "Connected Transactions" as disclosed in this report, no other 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

Save as redemption of perpetual securities in January 2019 as detailed in "Financing structure" section under "Financial Resources Review" on pages 60 and 61 of this Annual Report, 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 Ka-kit	**Lee Ka-shing**
Chairman	*Chairman*

Hong Kong, 19th March 2020

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 2019, 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 include 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 participated in appropriate continuous professional development and provided the Company with their records of training they received for the year ended 31st December 2019.

During the year ended 31st December 2019, all the current Directors participated in the training which included reading regulatory updates or information relevant to the Group or its businesses and attending or giving talks at seminars and/or conferences.

Board of Directors (Continued)

Responsibilities of Directors (Continued)

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

* *Dr. Lee Ka-kit and Mr. Lee Ka-shing were appointed as Joint Chairmen of the Board with effect from the conclusion of the annual general meeting of the Company held on 28th May 2019 (the "2019 AGM").*

** *Dr. Moses Cheng Mo-chi was appointed as Independent Non-executive Director on 14th January 2019.*

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 2019, the Board reviewed the Company's policies and practices on corporate governance and the disclosure in the Corporate Governance Report.

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.

Board of Directors (Continued)

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.

Dividend Policy

The Board adopted a Dividend Policy which sets out the guidelines for the Board to determine whether to pay a dividend and the level of such dividend to be paid. In general, it is the policy of the Company to allow its shareholders to participate in the Company's profits whilst retaining adequate reserves for future growth. Normally, the Company pays dividends twice a year, which are the interim dividend and final dividend. The Board may also declare special dividends in addition to such dividends as it considers appropriate. The policy also contains a number of factors for which the Board has to consider in determining the frequency, amount and form of any dividend in any financial year/period. The Board may also consider the issuance of bonus shares on a basis as permitted by the applicable laws and regulations.

Board Composition

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

Board of Directors (Continued)

Board Composition (Continued)

During the year ended 31st December 2019 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. Lee Ka-kit (Chairman)**
Mr. Lee Ka-shing (Chairman)**
Dr. Colin Lam Ko-yin

Independent Non-executive Directors

Dr. the Hon. Sir David Li Kwok-po
Prof. Poon Chung-kwong
Dr. Moses Cheng Mo-chi***

Executive Directors

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

* *Dr. the Hon. Lee Shau-kee retired as Chairman of the Board and Non-executive Director with effect from the conclusion of the 2019 AGM.*
** *Dr. Lee Ka-kit and Mr. Lee Ka-shing were appointed as Joint Chairmen of the Board with effect from the conclusion of the 2019 AGM.*
*** *Dr. Moses Cheng Mo-chi was appointed as Independent Non-executive Director on 14th January 2019.*

As disclosed in the announcement of the Company dated 30th October 2018, following the passing away of Mr. Leung Hay-man (the former Independent Non-executive Director) 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 14 to 18 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.

Joint Chairmen of the Board and Managing Director

Dr. Lee Ka-kit and Mr. Lee Ka-shing were appointed as Joint Chairmen of the Board following the retirement of Dr. the Hon. Lee Shau-kee as Chairman of the Board and Non-executive Director with effect from the conclusion of the 2019 AGM and the Managing Director is Mr. Alfred Chan Wing-kin. The roles of the Joint Chairmen of the Board and the Managing Director are separate and are not performed by the same individual. The Joint Chairmen are 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 2019, the Board met four times. The attendance record of each Director at the Board meetings during the year ended 31st December 2019 is set out below:

Directors	No. of Meetings Attended / Held
Non-executive Directors	
Dr. the Hon. Lee Shau-kee (Chairman)*	2/2
Dr. Lee Ka-kit (Chairman)**	4/4
Mr. Lee Ka-shing (Chairman)**	4/4
Dr. Colin Lam Ko-yin	4/4
Independent Non-executive Directors	
Dr. the Hon. Sir David Li Kwok-po	4/4
Prof. Poon Chung-kwong	4/4
Dr. Moses Cheng Mo-chi***	4/4
Executive Directors	
Mr. Alfred Chan Wing-kin	4/4
Mr. Peter Wong Wai-yee	4/4

* *Dr. the Hon. Lee Shau-kee retired as Chairman of the Board and Non-executive Director with effect from the conclusion of the 2019 AGM.*

** *Dr. Lee Ka-kit and Mr. Lee Ka-shing were appointed as Joint Chairmen of the Board with effect from the conclusion of the 2019 AGM.*

*** *Dr. Moses Cheng Mo-chi was appointed as Independent Non-executive Director on 14th January 2019.*

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 2019.

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 2019, 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 91 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), 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 (the former Independent Non-executive Director) 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 2019 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 2018 annual results and 2019 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; and
- 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.

Board Committees (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 2019 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
Prof. Poon Chung-kwong	2/2
Dr. Moses Cheng Mo-chi*	2/2

* *Dr. Moses Cheng Mo-chi was appointed as member of the Board Audit and Risk Committee on 14th January 2019.*

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. Lee Ka-kit and Mr. Lee Ka-shing (Non-executive Directors, both were appointed with effect from the conclusion of the 2019 AGM), 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. Dr. the Hon. Lee Shau-kee (Non-executive Director) ceased to be member of the Remuneration Committee with effect from the conclusion of the 2019 AGM.

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 2019, every Director received a Director's fee at the rate of HK$250,000 per annum while the Chairman/Joint Chairmen of the Board each 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 2019, 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 2019 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
Dr. Lee Ka-kit**	N/A
Mr. Lee Ka-shing**	N/A
Prof. Poon Chung-kwong	1/1
Dr. Moses Cheng Mo-chi***	1/1

* *Dr. the Hon. Lee Shau-kee ceased to be member of the Remuneration Committee with effect from the conclusion of the 2019 AGM.*
** *Dr. Lee Ka-kit and Mr. Lee Ka-shing were appointed as members of the Remuneration Committee with effect from the conclusion of the 2019 AGM.*
*** *Dr. Moses Cheng Mo-chi was appointed as member of the Remuneration Committee on 14th January 2019.*

Board Committees (Continued)

Nomination Committee

The Company established a Nomination Committee on 19th March 2012. The Nomination Committee is jointly chaired by Dr. Lee Ka-kit and Mr. Lee Ka-shing (Non-executive Directors, both were appointed with effect from the conclusion of the 2019 AGM) 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). Dr. the Hon. Lee Shau-kee (Non-executive Director) ceased to be chairman of the Nomination Committee with effect from the conclusion of the 2019 AGM.

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 2019. 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 2019 AGM.

The attendance record of each member at the Nomination Committee meeting during the year ended 31st December 2019 is set out below:

Nomination Committee Members	No. of Meeting Attended / Held
Dr. the Hon. Lee Shau-kee (Chairman)*	1/1
Dr. Lee Ka-kit (Chairman)**	N/A
Mr. Lee Ka-shing (Chairman)**	N/A
Dr. the Hon. Sir David Li Kwok-po	1/1
Prof. Poon Chung-kwong	1/1
Dr. Moses Cheng Mo-chi***	1/1

* *Dr. the Hon. Lee Shau-kee ceased to be chairman of the Nomination Committee with effect from the conclusion of the 2019 AGM.*
** *Dr. Lee Ka-kit and Mr. Lee Ka-shing were appointed as joint chairmen of the Nomination Committee with effect from the conclusion of the 2019 AGM.*
*** *Dr. Moses Cheng Mo-chi was appointed as member of the Nomination Committee on 14th January 2019.*

Auditor's Remuneration

For the year ended 31st December 2019, the total remuneration in respect of statutory audit services provided by the Company's external auditor, PricewaterhouseCoopers, amounted to approximately HK$12.9 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$5.8 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 2019, 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)

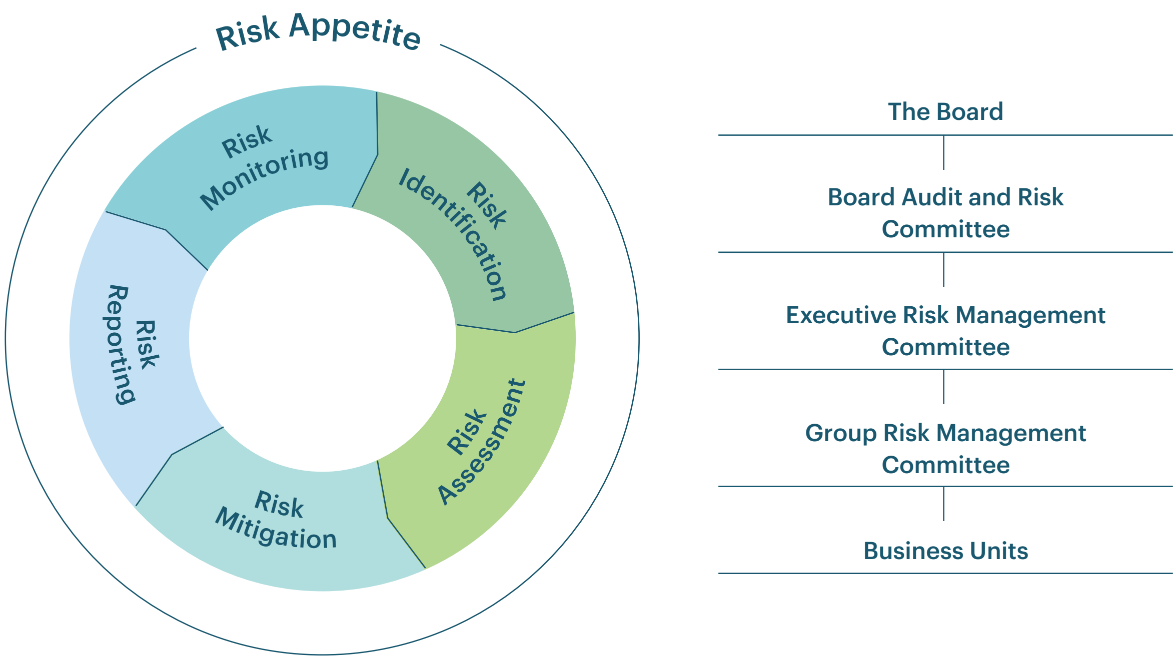
Risk Management

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 pages 58 to 59 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 2019, 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 2019 AGM was held on 28th May 2019. The attendance record of each Director at the 2019 AGM is set out below:

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

* *Dr. the Hon. Lee Shau-kee retired as Chairman of the Board and Non-executive Director with effect from the conclusion of the 2019 AGM.*

** *Dr. Lee Ka-kit and Mr. Lee Ka-shing were appointed as Joint Chairmen of the Board with effect from the conclusion of the 2019 AGM.*

*** *Dr. Moses Cheng Mo-chi was appointed as Independent Non-executive Director on 14th January 2019.*

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

At the 2019 AGM, amendments to the Articles of Association relating to the inclusion of provisions for Joint Chairmen of the Board and the chairing of Board meetings and general meetings when at any time there are Joint Chairmen were approved by shareholders of the Company. The latest version of the Articles of Association is available on both the Company's and the Exchange's websites.

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 92 to 191, which comprise:

- the consolidated income statement for the year ended 31st December 2019;
- the consolidated statement of comprehensive income for the year then ended;
- the consolidated statement of financial position as at 31st December 2019;
- 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 2019, 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 interest of an unlisted company
- Impairment assessment of (i) coal mine and oil properties and (ii) property, plant and equipment and goodwill of individual city-gas projects
- Recognition of gas connection income

Key audit matter	How our audit addressed the key audit matter
Valuation of investment in certain equity interest of an unlisted company Refer to notes 3, 4 and 24 to the consolidated financial statements 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 2019 was valued by an independent professional valuer. With reference to the valuation, management had estimated the fair value of the Investment at HK$2.9 billion at year end. 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. 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.	Our procedures in relation to management's valuation of the Investment include: • 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. Based on the audit procedures performed, we found the assumptions made by management in relation to the valuation were supported by available evidence.

Key audit matters (Continued)

Key audit matter	How our audit addressed the key audit matter
Impairment assessment of (i) coal mine and oil properties and (ii) property, plant and equipment and goodwill of individual city-gas projects Refer to notes 4, 5, 7, 16, 19, 21 and 22 to the consolidated financial statements In relation to the new energy business segment, the Group owned a coal mine in mainland China and oil properties in Thailand which were engaged in the exploration, drilling and sale of crude oil. The carrying values of the coal mine and oil properties are mainly included under "mining and oil properties" of HK$2.7 billion (after impairment as detailed below) of property, plant and equipment as at 31st December 2019. In 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 impairment of HK$560.0 million was recognised in the consolidated income statement for the year ended 31st December 2019.	Our procedures in relation to management's impairment assessment include: • Understanding, evaluating and testing management's control procedures in relation to impairment assessment, where applicable; • Evaluating the independent professional valuer's and consultant's competence, capabilities and objectivity, where applicable; • Assessing the methodology used by management to estimate the recoverable amounts; • 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 recoverable amount of the coal mine and oil properties and city-gas business, challenging the reasonableness of management's assumptions such as the coal and oil reserves, future business growth, future products selling prices and production costs, expected impact of regulatory changes, discount rate, terminal value, 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, where applicable. Internal valuation expert had been engaged to assist the review on the methodology of the recoverable amount calculations and discount rates; and

Key audit matters (Continued)

Key audit matter	How our audit addressed the key audit matter
In relation to city-gas business in mainland China operated by the Group's subsidiaries, the carrying values of property, plant and equipment and goodwill related to these individual city-gas projects as at 31st December 2019 amounting to approximately HK$30.0 billion (after impairment as detailed below). The Group's share of property, plant and equipment, together with goodwill related to individual city-gas projects accounted for as associates and joint ventures of the Group as at 31st December 2019 were carried at approximately HK$9.0 billion and HK$15.0 billion respectively (after impairment as detailed below). In consideration of regulatory development and market-oriented reforms for the natural gas industry in the mainland China, management considered there were uncertainties to future profitability from these projects and performed impairment assessment on these assets. A total provision for impairment of HK$1,030.0 million was recognised in the consolidated income statement for the year ended 31st December 2019, of which HK$380.0 million was related to subsidiaries, and, through equity accounting, HK$69.0 million and HK$581.0 million were related to associates and joint ventures respectively. Under the impairment assessments, management calculated the recoverable amounts under value-in-use or fair value less cost of disposal method. As the 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, expected impact of the regulatory changes, discount rate, terminal value etc., we consider it was one of the key audit matters.	• Performing sensitivity analysis in consideration of potential impact of reasonably possible downside changes in the key assumptions; Based on the audit procedures performed, we found that the assumptions made by management were supported by available evidence.

Key audit matters (Continued)

Key audit matter	How our audit addressed the key audit matter
Recognition of gas connection income Refer to notes 4 and 5 to the consolidated financial statements Gas connection income is recognised when or as the control of the underlying performance obligations is transferred to the customer. The Group had recognised gas connection income of HK$3.3 billion for the year ended 31st December 2019. Management identified performance obligations from the contract and determined corresponding transaction price. For performance obligation being satisfied at a point in time, revenue is recognised when the customer obtains control of the service. For performance obligation being satisfied overtime, 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. 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. Due to its quantitative significance to the consolidated income statement and judgements involved in the determination of the progress, we considered recognition of gas connection income as one of the key audit matters.	Our audit procedures in relation to recognition of gas connection income and margins included the following: • 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. We found the management's estimations and judgements in the recognition of gas connection income to be reasonable based on the available evidence.

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, 19th March 2020

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Consolidated Income Statement

for the year ended 31st December 2019

	Note	**2019 HK$'M**	2018 HK$'M
Revenue	5	**40,628.1**	39,073.0
Total operating expenses	6	**(32,604.4)**	(30,689.8)
		8,023.7	8,383.2
Other gains, net	7	**1,048.7**	20.0
Interest expense	9	**(1,230.4)**	(1,176.6)
Share of results of associates	21	**1,820.4**	3,589.5
Share of results of joint ventures	22	**741.5**	1,523.4
Profit before taxation	10	**10,403.9**	12,339.5
Taxation	13	**(2,289.6)**	(1,907.6)
Profit for the year		**8,114.3**	10,431.9
Attributable to:			
Shareholders of the Company		**6,965.7**	9,312.8
Holders of perpetual capital securities		**98.6**	107.4
Non-controlling interests		**1,050.0**	1,011.7
		8,114.3	10,431.9
Earnings per share – basic and diluted, HK cents	15	**41.2**	55.0*

* Adjusted for the bonus share issue in 2019

The notes on pages 100 to 191 form part of these consolidated financial statements.

Consolidated Statement of Comprehensive Income

for the year ended 31st December 2019

	2019 HK$'M	2018 HK$'M
Profit for the year	**8,114.3**	10,431.9
Other comprehensive income:		
Items that will not be reclassified subsequently to profit or loss:		
Movement in reserve of equity investments at fair value through other comprehensive income	**1,490.7**	6.7
Remeasurements of retirement benefit	**102.1**	(73.4)
Share of other comprehensive income of associates	**71.0**	–
Exchange differences	**(74.8)**	–
Items that may be reclassified subsequently to profit or loss:		
Movement in reserve of debt investments at fair value through other comprehensive income	**14.7**	(20.9)
Change in fair value of cash flow hedges	**(15.2)**	(88.7)
Share of other comprehensive income of an associate	**10.8**	3.6
Exchange differences	**(777.0)**	(2,699.7)
Other comprehensive income/(loss) for the year, net of tax	**822.3**	(2,872.4)
Total comprehensive income for the year	**8,936.6**	7,559.5
Total comprehensive income attributable to:		
Shareholders of the Company	**7,388.1**	6,818.3
Holders of perpetual capital securities	**98.6**	107.4
Non-controlling interests	**1,449.9**	633.8
	8,936.6	7,559.5

The notes on pages 100 to 191 form part of these consolidated financial statements.

Consolidated Statement of Financial Position

as at 31st December 2019

	Note	2019 HK$'M	2018 HK$'M
Assets			
Non-current assets			
Property, plant and equipment	16	**61,082.7**	57,978.8
Investment property	17	**830.0**	778.0
Right-of-use assets	18	**2,725.2**	–
Leasehold land	18	–	2,214.5
Intangible assets	19	**5,291.1**	5,682.1
Associates	21	**27,475.5**	26,314.1
Joint ventures	22	**10,613.5**	10,950.3
Financial assets at fair value through other comprehensive income	23	**3,141.9**	1,127.0
Financial assets at fair value through profit or loss	24	**5,030.6**	3,506.7
Derivative financial instruments	25	**354.1**	55.4
Retirement benefit assets	26	**66.3**	–
Other non-current assets	27	**3,729.8**	3,474.0
		120,340.7	112,080.9
Current assets			
Inventories	28	**2,363.7**	2,480.7
Trade and other receivables	29	**8,001.2**	7,615.9
Loan and other receivables from associates	21	**526.7**	356.9
Loan and other receivables from joint ventures	22	**800.4**	822.6
Loan and other receivables from non-controlling shareholders		**240.0**	155.0
Financial assets at fair value through profit or loss	24	**188.5**	303.5
Derivative financial instruments	25	**1.4**	38.2
Time deposits over three months	30	**158.6**	338.6
Time deposits up to three months, cash and bank balances	30	**7,848.9**	8,500.8
		20,129.4	20,612.2
Current liabilities			
Trade payables and other liabilities	31	**(14,718.0)**	(13,929.4)
Amounts due to joint ventures	22	**(943.2)**	(1,049.5)
Loan and other payables due to non-controlling shareholders		**(100.4)**	(148.0)
Provision for taxation		**(1,165.3)**	(496.8)
Borrowings	32	**(9,240.6)**	(8,062.7)
Redeemable perpetual securities	32	–	(2,349.6)
Derivative financial instruments	25	–	(114.9)
		(26,167.5)	(26,150.9)
Total assets less current liabilities		**114,302.6**	106,542.2

The notes on pages 100 to 191 form part of these consolidated financial statements.

Consolidated Statement of Financial Position (Continued)

as at 31st December 2019

	Note	2019 HK$'M	2018 HK$'M
Non-current liabilities			
Deferred taxation	33	**(7,180.5)**	(6,099.1)
Borrowings	32	**(28,695.6)**	(27,609.3)
Asset retirement obligations		**(78.1)**	(48.6)
Derivative financial instruments	25	**(571.0)**	(558.9)
Retirement benefit liabilities	26	**–**	(23.8)
Other non-current liabilities	34	**(2,380.7)**	(2,009.2)
		(38,905.9)	(36,348.9)
Net assets		**75,396.7**	70,193.3
Capital and reserves			
Share capital	35	**5,474.7**	5,474.7
Reserves	36	**58,734.7**	56,926.0
Shareholders' funds		**64,209.4**	62,400.7
Perpetual capital securities	37	**2,384.2**	–
Non-controlling interests		**8,803.1**	7,792.6
Total equity		**75,396.7**	70,193.3

Approved by the Board of Directors on 19th March 2020

Lee Ka-kit
Director

David Li Kwok-po
Director

The notes on pages 100 to 191 form part of these consolidated financial statements.

Consolidated Cash Flow Statement

for the year ended 31st December 2019

	Note	2019 HK$'M	2018 HK$'M
Net cash from operating activities	41	**9,912.4**	9,438.9
Investing activities			
Receipt from sale of property, plant and equipment		**76.3**	136.2
Receipt from sale of right-of-use assets/leasehold land		**7.1**	65.9
Purchase of property, plant and equipment		**(6,751.3)**	(6,567.0)
Payment for right-of-use assets/leasehold land		**(301.6)**	(179.0)
Increase in investments in associates		**(412.3)**	(703.7)
Increase in loans to associates		**(214.2)**	(226.7)
Repayment of loans by associates		**7.8**	61.3
Increase in investments in joint ventures		**(79.0)**	(27.3)
Increase in loans to joint ventures		**(43.4)**	(14.7)
Decrease in amounts due to joint ventures		**(51.5)**	(92.4)
Repayment of loans by joint ventures		**74.9**	51.7
Consideration paid for acquisition of businesses in prior periods		**–**	(22.1)
Acquisition of businesses	42 (a)	**(42.5)**	(61.6)
Sale of financial assets at fair value through profit or loss		**50.6**	803.0
Sale of financial assets at fair value through other comprehensive income		**21.2**	84.2
Purchase of financial assets at fair value through profit or loss		**(10.0)**	(1,108.0)
Purchase of financial assets at fair value through other comprehensive income		**(98.9)**	(26.4)
Decrease in time deposits over three months		**175.1**	1,724.3
Interest received		**233.7**	310.4
Dividends received from investments in securities		**105.4**	125.8
Dividends received from associates		**1,064.3**	949.9
Dividends received from joint ventures		**887.5**	939.6
Net cash used in investing activities		**(5,300.8)**	(3,776.6)

The notes on pages 100 to 191 form part of these consolidated financial statements.

Consolidated Cash Flow Statement (Continued)

for the year ended 31st December 2019

	Note	2019 HK$'M	2018 HK$'M
Financing activities			
Redemption of perpetual capital securities		**(2,405.4)**	–
Issue of perpetual capital securities		**2,341.3**	–
Change in loans with non-controlling shareholders		**(132.8)**	(76.6)
Capital injection by non-controlling shareholders		**100.1**	169.2
Further acquisition of subsidiaries	42 (b)	**(37.5)**	(70.6)
Partial disposal of a subsidiary		**–**	31.1
Increase in borrowings		**22,012.0**	20,526.2
Repayment of borrowings		**(19,441.2)**	(21,195.6)
Principal elements of lease payments		**(128.6)**	–
Interest paid for the lease liability		**(16.3)**	–
Interest paid to holders of perpetual capital securities		**(55.7)**	(111.6)
Interest paid		**(1,405.1)**	(1,486.0)
Dividends paid to shareholders of the Company	43 (a)	**(5,569.9)**	(5,063.6)
Dividends paid to non-controlling shareholders		**(474.8)**	(511.0)
Net cash used in financing activities		**(5,213.9)**	(7,788.5)
Decrease in cash and cash equivalents		**(602.3)**	(2,126.2)
Cash and cash equivalents at 1st January		**8,500.8**	10,758.6
Effect of foreign exchange rate changes		**(49.6)**	(131.6)
Cash and cash equivalents at 31st December		**7,848.9**	8,500.8
Analysis of the balances of cash and cash equivalents			
Cash and bank balances		**5,385.3**	4,857.1
Time deposits up to three months		**2,463.6**	3,643.7
		7,848.9	8,500.8

The notes on pages 100 to 191 form part of these consolidated financial statements.

Consolidated Statement of Changes in Equity

for the year ended 31st December 2019

	Attributable to shareholders of the Company		Holders of perpetual capital securities	Non-controlling interests	Total
	Share capital HK$'M	Reserves HK$'M	HK$'M	HK$'M	HK$'M
As at 1st January 2019	5,474.7	56,926.0	–	7,792.6	70,193.3
Adjustment on adoption of HKFRS 16, net of taxation (note 2(b))	–	(30.6)	–	(6.1)	(36.7)
As at 1st January 2019 (restated)	5,474.7	56,895.4	–	7,786.5	70,156.6
Profit for the year	–	6,965.7	98.6	1,050.0	8,114.3
Other comprehensive income:					
Movement in reserve of financial assets at fair value through other comprehensive income	–	1,030.6	–	474.8	1,505.4
Remeasurements of retirement benefit	–	102.1	–	–	102.1
Change in fair value of cash flow hedges	–	(15.1)	–	(0.1)	(15.2)
Share of other comprehensive income of associates	–	81.8	–	–	81.8
Exchange differences	–	(777.0)	–	(74.8)	(851.8)
Total comprehensive income for the year	–	7,388.1	98.6	1,449.9	8,936.6
Capital injection	–	–	–	100.1	100.1
Further acquisition of subsidiaries (note 42(b))	–	21.1	–	(58.6)	(37.5)
Interest paid on perpetual capital securities	–	–	(55.7)	–	(55.7)
Dividends paid to shareholders of the Company	–	(5,569.9)	–	–	(5,569.9)
Dividends paid to non-controlling shareholders	–	–	–	(474.8)	(474.8)
Issue of perpetual capital securities	–	–	2,341.3	–	2,341.3
As at 31st December 2019	5,474.7	58,734.7	2,384.2	8,803.1	75,396.7

The notes on pages 100 to 191 form part of these consolidated financial statements.

Consolidated Statement of Changes in Equity (Continued)

for the year ended 31st December 2019

	Attributable to shareholders of the Company		Holders of perpetual capital securities	Non-controlling interests	Total
	Share capital HK$'M	Reserves HK$'M	HK$'M	HK$'M	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 policies	–	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	–	(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 100 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, 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 2019, the Group was in a net current liabilities position of approximately HK$6.0 billion. This is mainly because of the settlement of the US$1 billion guaranteed notes in August 2018, which was not fully refinanced by non-current borrowings since the settlement. Taking into consideration 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 amendments to standards and interpretation adopted in 2019

The Group has adopted the following amendments to standards and new interpretation which are effective for the Group's financial year beginning 1st January 2019 and relevant to the Group.

Amendments to HKAS 19	Employee Benefits, Plan Amendment, Curtailment or Settlement
Amendments to HKAS 28	Investments in Associates and Joint Ventures
Amendments to HKFRS 9	Prepayment Features with Negative Compensation
Annual Improvements Projects	HKASs and HKFRSs 2015 – 2017 cycle
HK(IFRIC)-Interpretation 23	Uncertainty over Income Tax Treatments

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

Save as mentioned above, the HKICPA has issued HKFRS 16 Leases ("HKFRS 16") which is effective for accounting period beginning 1st January 2019, with the impact of the adoption of the new accounting policies being disclosed in note 2(b) below.

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 2019 but relevant to the Group and have not been early adopted by the Group

HKFRS 17	Insurance Contracts
Amendments to HKFRS 3	Definition of a Business
Amendments to HKFRS 10 and HKAS 28	Sale or Contribution of Assets between an Investor and its Associate or Joint Venture
Amendments to HKFRS 7, HKFRS 9 and HKAS 39	Interest Rate Benchmark Reform
Amendments to HKAS 1 and HKAS 8	Definition of Material
Conceptual Framework for Financial Reporting 2018	Revised Conceptual Framework for Financial Reporting

(b) Changes in accounting policies

This note explains the impact of the adoption of HKFRS 16 on the Group's consolidated financial statements.

As indicated in note 2(a)(i) above, the Group has adopted HKFRS 16 retrospectively from 1st January 2019, but has not restated comparative information for the prior reporting period, as permitted under the specific transitional provisions in the standard. The reclassifications and adjustments arising from the new leasing rules are therefore not reflected in the consolidated statement of financial position as at 31st December 2018, but are recognised in the opening consolidated statement of financial position as at 1st January 2019. The new accounting policies are disclosed in note 2(j).

On adoption of HKFRS 16, the Group recognised lease liabilities in relation to leases which had previously been classified as "operating leases" under the principles of HKAS 17 Leases ("HKAS 17"). These liabilities were measured at the present value of the remaining lease payments, discounted using the lessee's incremental borrowing rate as of 1st January 2019. The weighted average lessee's incremental borrowing rates applied to the lease liabilities on 1st January 2019 were 3% for leases in Hong Kong and 5% for leases in mainland China. While for right-of-use assets, the Group has elected to measure the right-of-use assets as if HKFRS 16 had been applied since the commencement date of a lease using the same incremental borrowing rate.

For leases previously classified as finance leases, the Group recognised the carrying amount of the lease asset and lease liability immediately before transition as the carrying amount of the right-of-use asset and the lease liability at the date of initial application.

The Group reassessed all lease contracts as well as contracts which did not satisfy the definition of a lease under HKAS 17 at 1st January 2019, there is one lease contract that was previously classified as an operating lease when applying HKAS 17 not meeting the definition of a lease under HKFRS 16.

There were no existing contracts that were not classified as a lease under HKAS 17 but satisfy the definition of a lease under HKFRS 16.

There were no onerous lease contracts that would have required an adjustment to the right-of-use assets at the date of initial application.

2 Summary of significant accounting policies (Continued)

(b) Changes in accounting policies (Continued)

(i) Practical expedients applied

In applying HKFRS 16 for the first time, the Group has used the following practical expedients permitted by the standard:

- the use of a single discount rate to a portfolio of leases with reasonably similar characteristics;
- reliance on previous assessments on whether leases are onerous;
- the exclusion of initial direct costs for the measurement of the right-of-use asset at the date of initial application; and
- the use of hindsight in determining the lease term where the contract contains options to extend or terminate the lease.

(ii) Measurement of lease liabilities

	HK$'M
Operating lease commitments disclosed as at 31st December 2018	**579.2**
Less: contract reassessed as a service agreement	**(124.0)**
Discounted using the lessee's incremental borrowing rates of at the date of initial application	**(22.8)**
Lease liabilities recognised as at 1st January 2019	**432.4**
Of which are:	
Current lease liabilities	**113.6**
Non-current lease liabilities	**318.8**
	432.4

(iii) Measurement of right-of-use assets

	31st December 2019 HK$'M	1st January 2019 HK$'M
Prepaid leasehold land	**2,418.3**	2,214.5
Buildings, plant and equipment and others	**306.9**	401.3
Total right-of-use assets	**2,725.2**	2,615.8

(iv) Adjustments recognised on 1st January 2019

The change in accounting policies affected the following items in the consolidated statement of financial position as at 1st January 2019:

- Associates – decrease by HK$2.4 million
- Joint ventures – decrease by HK$9.9 million
- Right-of-use assets – increase by HK$401.3 million
- Deferred taxation – decrease by HK$5.7 million
- Lease liabilities – increase by HK$432.4 million

The net impact on retained profits and non-controlling interests on 1st January 2019 were a decrease of HK$30.6 million and a decrease of HK$6.1 million respectively.

The adoption of HKFRS 16 resulted in changes in certain terminology used. The right-of-use assets in relation to prepaid leasehold land were previously presented as leasehold land.

2 Summary of significant accounting policies (Continued)

(b) Changes in accounting policies (Continued)

(v) Lessor accounting

The Group did not need to make any adjustments to the accounting for assets held as lessor under operating leases as a result of the adoption of HKFRS 16.

(vi) Impact on segment information

Adjusted profit before interest, tax, depreciation and amortisation ("adjusted EBITDA") for the year ended 31st December 2019, segment assets and segment liabilities as at 31st December 2019 all increased as a result of the change in accounting policies. Lease liabilities are now included in segment liabilities, whereas finance lease liabilities were previously excluded from segment liabilities. The following segments were affected by the change in accounting policies:

	Adjusted EBITDA HK$'M	Segment assets HK$'M	Segment liabilities HK$'M
Gas, water and related businesses			
– Hong Kong	**57.1**	**81.4**	**83.6**
– mainland China	**108.3**	**126.4**	**144.1**
New Energy	**12.8**	**46.1**	**49.8**
Other segments	**24.5**	**53.0**	**60.9**
	202.7	**306.9**	**338.4**

(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.

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.

2 Summary of significant accounting policies (Continued)

(c) Consolidation (Continued)

(i) Subsidiaries (Continued)

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, a joint venture or a 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.

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 in the profit or loss.

2 Summary of significant accounting policies (Continued)

(c) Consolidation (Continued)

(iv) Associates (Continued)

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 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.

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.

2 Summary of significant accounting policies (Continued)

(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 at the dates of the transactions. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation of monetary assets and liabilities denominated in foreign currencies at year end exchange rates are generally recognised in profit or loss. They are deferred in equity if they relate to qualifying cash flow hedges and qualifying net investment hedges or are attributable to part of the net investment in a foreign operation.

Foreign exchange gains and losses that relate to borrowings are presented in the income statement, within finance costs. All other foreign exchange gains and losses are presented in the income statement on a net basis within other gains, net.

Non-monetary items that are measured at fair value in a foreign currency are translated using the exchange rates at the date when the fair value was determined. Translation differences on assets and liabilities carried at fair value are reported as part of the fair value gain or loss. For example, translation differences on non-monetary assets and liabilities such as equities held at FVPL are recognised in profit or loss as part of the fair value gain or loss and translation differences on non-monetary assets such as equities classified as FVOCI are recognised in other comprehensive income.

(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 other comprehensive income.

On consolidation, exchange differences arising from the translation of the net investment in foreign operations are taken to other comprehensive income. 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.

Gain or loss 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

As explained in note 2(b) above, the Group has changed its accounting policies for leases where the Group is the lessee. The new policies are described below and the impact of the changes in note 2(b).

From 1st January 2019, leases are recognised as a right-of-use asset and a corresponding liability at the date at which the leased asset is available for use by the Group.

Contracts may contain both lease and non-lease components. The Group allocates the consideration in the contract to the lease and non-lease components based on their relative stand-alone prices.

Assets and liabilities arising from a lease are initially measured on a present value basis. Lease liabilities include the net present value of the following lease payments:

- fixed payments (including in-substance fixed payments), less any lease incentives receivable
- variable lease payment that are based on an index or a rate, initially measured using the index or rate as at the commencement date
- amounts expected to be payable by the Group under residual value guarantees
- the exercise price of a purchase option if the Group is reasonably certain to exercise that option, and
- payments of penalties for terminating the lease, if the lease term reflects the Group exercising that option.

Lease payments to be made under reasonably certain extension options are also included in the measurement of the liability.

The lease payments are discounted using the interest rate implicit in the lease. If that rate cannot be readily determined, which is generally the case for leases in the Group, the lessee's incremental borrowing rate is used, being the rate that the individual lessee would have to pay to borrow the funds necessary to obtain an asset of similar value to the right-of-use asset in a similar economic environment with similar terms, security and conditions.

The Group is exposed to potential future increases in variable lease payments based on an index or rate, which are not included in the lease liability until they take effect. When adjustments to lease payments based on an index or rate take effect, the lease liability is reassessed and adjusted against the right-of-use asset.

Lease payments are allocated between principal and finance cost. The finance cost is charged to 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.

Right-of-use assets are measured at cost comprising the following:

- the amount of the initial measurement of lease liability
- any lease payments made at or before the commencement date less any lease incentives received
- any initial direct costs, and
- restoration costs.

Right-of-use assets are generally depreciated over the shorter of the asset's useful life and the lease term on a straight-line basis.

Lease income from operating leases where the Group is a lessor is recognised in the profit or loss on a straight-line basis over the lease term.

2 Summary of significant accounting policies (Continued)

(j) Leases (Continued)

Accounting policies applied until 31st December 2018

Until 31st December 2018, leases of assets where the Group had substantially all the risks and rewards of ownership were classified as finance leases. Finance leases were 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 was 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, were included in current and non-current borrowings. The interest element of the finance cost was 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 were carried at cost less accumulated depreciation and impairment. They were depreciated over the shorter of the useful life of the assets and the lease term.

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

(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 a 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 assets are 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

The Group classifies its financial assets in the following categories: those to be measured subsequently at fair value (either through other comprehensive income 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 other comprehensive income. 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 investments 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 other comprehensive income, 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 other comprehensive income 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. Foreign exchange gains and losses are presented in other gains, net and impairment expenses are presented as separate line item in the income statement.

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 other comprehensive income, 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 income statement 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

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, with further details set out in note 29.

(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.

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 other comprehensive income 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 contracts 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 contracts that relates to the hedged item ('aligned forward element') is recognised within other comprehensive income in the costs of hedging reserve within equity. In some cases, the entity may designate the full change in fair value of the forward contracts (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 contracts are recognised in the cash flow hedge reserve within equity.

2 Summary of significant accounting policies (Continued)

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

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.

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.

2 Summary of significant accounting policies (Continued)

(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.

(r) Trade and other receivables

Trade and other receivables are amounts due from customers for merchandises 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 and other 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, less provision for impairment. A provision for impairment is established when there is no reasonable expectation of recovery.

(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.

(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 drawdown occurs. To the extent there is no evidence that it is probable that some or all of the facility will be drawndown, 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.

2 Summary of significant accounting policies (Continued)

(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.

(w) Revenue and income recognition

(i) Gas sales – recognised at a 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 over time or at a point in time depending on the terms of the contracts and actual work performed.

2 Summary of significant accounting policies (Continued)

(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 governments 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.

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.

2 Summary of significant accounting policies (Continued)

(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, including medium-term notes denominated in foreign currencies. 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 2019, if the RMB had weakened/strengthened by 2 per cent (2018: 2 per cent) against HKD with all other variables held constant, pre-tax profit for the year would have been HK$27.0 million (2018: HK$124.5 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$2,606.2 million (2018: HK$348.3 million) and HK$2,236.3 million (2018: HK$264.1 million) respectively.

The Group also held unlisted equity investments which are classified as FVPL of HK$50.5 million (2018: HK$39.4 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.

3 Financial risk management (Continued)

Financial risk factors (Continued)

(a) Market risk (Continued)

(ii) ***Price risk*** (Continued)

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, Euro Stoxx 50 Price Index and Shanghai Stock Exchange A Share Index.

Included in Shanghai Stock Exchange A Share Index are mainly the equity securities of two companies newly listed in the PRC with total carrying values amounted to HK$4,356.5 million. As their listing dates were close to year-end, there is no proven correlation between the equity security and the index.

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 other comprehensive income. 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 other comprehensive income	
	2019 HK$'M	2018 HK$'M	**2019 HK$'M**	2018 HK$'M
Hang Seng Index	**19.4**	26.8	**9.4**	9.2
S&P 500 Index	**3.3**	3.2	**–**	–
Euro Stoxx 50 Price Index	**4.1**	3.6	**–**	–

Pre-tax profit for the year would increase/decrease as a result of gains/losses on equity securities classified as at FVPL. Other comprehensive income would increase/decrease as a result of gains/losses on equity securities classified as FVOCI before consideration of any impairment.

(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$8,007.5 million (2018: HK$8,839.4 million). The Group's interest bearing liabilities mainly comprises floating rate borrowings of HK$17,024.9 million (2018: HK$18,339.9 million), fixed rate borrowings of HK$20,911.3 million (2018: HK$19,681.7 million) and floating rate deposits received from customers of HK$1,389.3 million (2018: HK$1,371.5 million).

At 31st December 2019, if market interest rates on bank deposits had been 100 basis points (2018: 100 basis points) higher/lower with all other variables held constant, pre-tax profit for the year would have been HK$75.0 million (2018: HK$114.3 million) higher/lower, mainly as a result of higher/lower interest income on floating rate bank deposits.

At 31st December 2019, if market interest rates on borrowings and customers' deposits had been 100 basis points (2018: 100 basis points) higher/lower with all other variables held constant, pre-tax profit for the year would have been HK$235.4 million (2018: HK$173.4 million) lower/higher, mainly as a result of higher/lower interest expense on floating rate borrowings and customers' deposits.

3 Financial risk management (Continued)

Financial risk factors (Continued)

(b) Credit risk

Credit risk of the Group mainly arises from:

	2019 HK$'M	2018 HK$'M
Cash and bank deposits	**8,007.5**	8,839.4
Debt securities and derivative financial instruments	**479.0**	204.6
Trade receivables	**3,819.8**	3,563.5
Other receivables	**2,445.5**	2,470.9
Loan and other receivables from joint ventures	**800.4**	862.5
Loan and other receivables from associates	**1,373.8**	1,171.6
Loan and other receivables from non-controlling interests	**240.0**	155.0
Other non-current assets	**2,830.6**	2,706.3

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 associates and 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 counterparty default risk is low and there is no history of default in repayment. Debt securities, derivative financial instruments entered with a non-financial institution 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 joint 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:

	2019 %	2018 %
Cash and bank deposits		
AA	**8.8**	13.5
A	**72.6**	68.1
BBB	**13.4**	12.0
BB	**0.7**	1.4
Unrated	**4.5**	5.0
	100.0	100.0
Debt securities		
AA	**20.2**	8.0
A	**41.5**	39.4
BBB	**–**	11.5
Unrated	**38.3**	41.1
	100.0	100.0

Credit ratings are quoted from Bloomberg.

3 Financial risk management (Continued)

Financial risk factors (Continued)

(b) Credit risk (Continued)

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 cash equivalents 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 measuring expected credit losses which uses a lifetime expected loss allowance for all trade receivables.

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 2019 and 2018 are as follows for trade receivables:

31st December 2019 **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%**	**52.9%**	
Gross carrying amount – trade receivables	**3,262.8**	**145.7**	**90.4**	**100.4**	**468.5**	**4,067.8**
Loss allowance	**–**	**–**	**–**	**–**	**248.0**	**248.0**

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

3 Financial risk management (Continued)

Financial risk factors (Continued)

(b) Credit risk (Continued)

The closing loss allowances for trade receivables as at 31st December 2019 and 2018 reconcile to the opening loss allowances as follows:

	Trade receivables	
	2019 HK$'M	2018 HK$'M
At 1st January	**221.2**	201.4
Increase in loan loss allowance recognised in the profit or loss during the year	**53.7**	37.5
Receivables written off during the year as uncollectible	**(21.2)**	(6.8)
Unused amount reversed	**(4.1)**	(6.8)
Exchange differences	**(1.6)**	(4.1)
At 31st December	**248.0**	221.2

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.

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 loss model was immaterial.

Other financial 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-month expected credit losses. Management consider 'low credit risk' for most of the listed bonds to be an investment grade credit rating with at least one major rating agency. The issuer has a strong capacity to meet its contractual cash flow obligations in the near term.

Taking into account the good credit rating of the counterparties and securities pledged by the counterparties management consider 'low credit risk' for the derivative financial instruments.

3 Financial risk management (Continued)

Financial risk factors (Continued)

(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 2019				
Trade and other payables	**4,862.9**	**–**	**–**	**–**
Loan and other payables to joint ventures	**943.2**	**–**	**–**	**–**
Loan and other payables to non-controlling shareholders	**100.4**	**–**	**–**	**–**
Borrowings	**10,467.4**	**6,851.0**	**15,669.8**	**12,423.0**
Lease liabilities	**111.5**	**90.0**	**97.8**	**76.6**
Derivative financial instruments	**–**	**105.3**	**465.7**	**–**
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	–

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.

3 Financial risk management (Continued)

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. Lease liabilities are excluded from the calculation of this ratio.

The gearing ratios at 31st December 2019 and 2018 are as follows:

	2019 HK$'M	2018 HK$'M
Total borrowings	**(37,936.2)**	(38,021.6)
Less: Time deposits, cash and bank deposits	**8,007.5**	8,839.4
Redeemable perpetual securities (note)	**–**	2,349.6
Net borrowing excluding redeemable perpetual securities	**(29,928.7)**	(26,832.6)
Shareholders' funds	**(64,209.4)**	(62,400.7)
Perpetual capital securities	**(2,384.2)**	–
Net borrowing (note)	**(29,928.7)**	(29,182.2)
	(96,522.3)	(91,582.9)
Gearing ratio	**31%**	29%

Note

As at 31st December 2018, for the purpose of providing a more meaningful gearing ratio analysis, management has reclassified the redeemable perpetual securities from total borrowings to equity, for the Group refinanced the redeemable perpetual securities by issuing 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 2019 and 2018. See note 17 for disclosures of the investment properties that are measured at fair value.

	Level 1		Level 2		Level 3		Total	
HK$'M	**2019**	2018	**2019**	2018	**2019**	2018	**2019**	2018
Assets								
Financial assets at FVPL								
– Equity securities	**2,236.3**	264.1	**50.5**	39.4	**2,932.3**	3,506.7	**5,219.1**	3,810.2
Derivative financial instruments	**–**	–	**90.4**	93.6	**265.1**	–	**355.5**	93.6
Financial assets at FVOCI								
– Debt securities	**213.9**	204.6	**–**	–	**–**	–	**213.9**	204.6
– Equity investments	**2,606.2**	348.3	**–**	–	**321.8**	574.1	**2,928.0**	922.4
Total assets	**5,056.4**	817.0	**140.9**	133.0	**3,519.2**	4,080.8	**8,716.5**	5,030.8
Liabilities								
Other payables	**–**	–	**–**	–	**154.0**	154.0	**154.0**	154.0
Derivative financial instruments	**–**	–	**571.0**	673.8	**–**	–	**571.0**	673.8
Total liabilities	**–**	–	**571.0**	673.8	**154.0**	154.0	**725.0**	827.8

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 calculated as the present value of future cash flows based on the forward exchange rates at the end of the reporting period.

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 approximately HK$2.9 billion of an unlisted equity investment and its related derivative, which are considered entirely as financial assets at 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 13.0 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 derivative financial instrument of approximately HK$0.3 billion, the fair value is determined based on the binomial model. The significant unobservable inputs include discount rate of 10.1 per cent and stock price expected volatility of the fair value of the underlying equity instrument of 31.7 per cent. The fair value increases with the decrease in discount rate and increase in stock price volatility or decreases with the increase in the discount rate and decrease in stock price volatility.
- Financial assets also include unlisted equity investments of approximately HK$0.3 billion, the fair values of which are determined based on the attributable net assets value, being significant unobservable input. The fair value increases with the increase in the attributable net assets value.
- 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 3.1 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 2019 and 2018.

	Financial assets		Financial liability	
	2019 HK$'M	2018 HK$'M	**2019 HK$'M**	2018 HK$'M
At 1st January	**4,080.8**	4,150.4	**154.0**	154.0
Additions	**349.0**	–	**–**	–
Change in fair value	**(35.8)**	176.1	**–**	9.8
Exchange difference	**(82.8)**	(245.7)	**–**	(9.8)
Reclassification to level 1 instruments	**(792.0)**	–	**–**	–
At 31st December	**3,519.2**	4,080.8	**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 as detailed below.

Mining and oil properties in mainland China and Thailand

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 recoverable amount of these projects as at 31st December 2019. The key assumptions adopted in the test were coal and oil reserves, future business growth, selling price, production volume and discount rate of 10.0 to 11.0 per cent. Based on the result of the tests, an impairment loss of HK$560.0 million was recognised in the profit or loss for the year ended 31st December 2019. 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.

Goodwill, property, plant and equipment in relation to city-gas business in mainland China

In 2017 and 2019, the National Development and Reform Commission issued "Guiding Opinion on Strengthening Gas Distribution Price Regulation" and the "Guiding Opinion on the Regulation of Installation Fees for Gas Facilities in Cities and Towns" respectively (collectively "Guiding Opinions"), which set out proposed return rates for both gas distribution and gas facility installation businesses of city-gas enterprises. In this regards, the Group has carried out assessment on the goodwill and property, plant and equipment of individual gas projects in mainland China, including those held through the Group's interests in associates and joint ventures.

The assessment for each of the city-gas projects is based on value-in-use approach using the discounted cash flow method. The estimated cash flows used in the assessment are derived based on the most recent financial budget as of 31st December 2019 for the next five years approved by management. Cash flows beyond five year period until the end of the relevant concession periods are determined by considering both internal and external factors relating to the cash-generating units. The Group is of the view that, in order to achieve a smooth transition to both the gas project operators and the society, the existing gas pricing mechanism would be adopted continuously for certain years and thereafter gradually implemented in a considerable period of time. The connecting fee margin was also reduced by management to address the rationale that drove the issue of the Guiding Opinions. The terminal value is determined by management with reference to applicable valuation basis and relevant rules and regulations. Discount rate ranged between 8.0 per cent to 11.0 per cent was used to reflect specific risk relating to the investments. In relation to city-gas business in mainland China operated by the Group's subsidiaries, the carrying values of property, plant and equipment and goodwill related to these individual city-gas projects as at 31st December 2019 amounting to approximately HK$30.0 billion (after impairment as detailed below). The Group's share of property, plant and equipment, together with goodwill related to individual city-gas projects accounted for as associates and joint ventures of the Group as at 31st December 2019 were carried at approximately HK$9.0 billion and HK$15.0 billion respectively (after impairment as detailed below). Based on the assessment, a total provision for impairment of HK$1,030.0 million was recognised in the consolidated income statement for the year ended 31st December 2019, of which HK$380.0 million was related to subsidiaries, and, through equity accounting, HK$69.0 million and HK$581.0 million were related to associates and joint ventures respectively.

4 Critical accounting estimates and judgements (Continued)

(a) Estimated impairment of assets (Continued)

Goodwill, property, plant and equipment in relation to city-gas business in mainland China (Continued)

The assumptions used in the assessment are highly judgemental, and heavily dependent on the timing and the extent the pricing mechanism as detailed in the Guiding Opinions will be implemented as well as the discount rate used and the terminal value. If the discount rate is increased by 50 basis points and all other variables are held constant, the profit attributable to the shareholders of the Company would be decreased by approximately HK$400.0 million. If the terminal value is decreased by 10 per cent and all other variables are held constant, the profit attributable to the shareholders of the Company would be decreased by approximately HK$200.0 million.

(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.

(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.

4 Critical accounting estimates and judgements (Continued)

(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

Gas connection income is recognised when or as the control of the underlying performance 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 price

Some gas connection contracts include installation services. Because these contracts include 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) Reserves 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.

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:

	2019 HK$'M	2018 HK$'M
Gas sales before fuel cost adjustment	**29,632.9**	27,922.4
Fuel cost adjustment	**771.9**	1,025.1
Gas sales after fuel cost adjustment	**30,404.8**	28,947.5
Connection income	**3,253.2**	3,292.7
Equipment sales and maintenance services	**2,950.2**	2,801.2
Water and related sales	**1,314.3**	1,365.8
Oil and coal related sales	**961.8**	1,338.2
Other sales	**1,743.8**	1,327.6
	40,628.1	39,073.0

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 EBITDA. Other information provided, except as noted below, to the ECM is measured in a manner consistent with that in the consolidated financial statements.

5 Segment information (Continued)

The segment information provided to the ECM for the reportable segments is as follows:

2019 HK$'M	Gas, water and related businesses: Hong Kong	Gas, water and related businesses: Mainland China	New Energy	Property	Other segments	Total
Revenue recognised at a point in time	**9,798.5**	**26,114.9**	**2,298.1**	**–**	**228.0**	**38,439.5**
Revenue recognised over time	**–**	**1,001.4**	**–**	**–**	**716.4**	**1,717.8**
Finance and rental income	**–**	**–**	**413.0**	**57.8**	**–**	**470.8**
	9,798.5	**27,116.3**	**2,711.1**	**57.8**	**944.4**	**40,628.1**
Adjusted EBITDA	**4,764.5**	**5,919.2**	**614.5**	**30.2**	**165.3**	**11,493.7**
Depreciation and amortisation	**(828.2)**	**(1,410.5)**	**(337.8)**	**–**	**(149.4)**	**(2,725.9)**
Unallocated expenses						**(744.1)**
						8,023.7
Other gains, net						**1,048.7**
Interest expense						**(1,230.4)**
Share of results of associates	**–**	**1,135.8**	**(72.7)**	**753.3**	**4.0**	**1,820.4**
Share of results of joint ventures	**–**	**730.5**	**1.1**	**9.3**	**0.6**	**741.5**
Profit before taxation						**10,403.9**
Taxation						**(2,289.6)**
Profit for the year						**8,114.3**

Share of results of associates includes HK$199.7 million (2018: HK$2,030.0 million) being the Group's share of change in valuation of investment properties at the International Finance Centre (the "IFC") complex for the year and HK$69.0 million (2018: nil) being provision for assets for a piped city-gas associate.

Share of results of joint ventures includes HK$581.0 million (2018: nil) being provision for assets for the piped city-gas joint ventures.

5 Segment information (Continued)

2018 HK$'M	Gas, water and related businesses – Hong Kong	Gas, water and related businesses – Mainland China	New Energy	Property	Other segments	Total
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

The segment assets at 31st December 2019 and 2018 are as follows:

2019 **HK$'M**	**Gas, water and related businesses – Hong Kong**	**Gas, water and related businesses – Mainland China**	**New Energy**	**Property**	**Other segments**	**Total**
Segment assets	**17,358.7**	**71,570.4**	**17,756.7**	**16,165.4**	**4,588.2**	**127,439.4**
Unallocated assets:						
Financial assets at FVOCI						**3,141.9**
Financial assets at FVPL						**5,219.1**
Time deposits, cash and bank balances excluded from segment assets						**3,423.9**
Others (note)						**1,245.8**
Total assets						**140,470.1**

5 Segment information (Continued)

2018 HK$'M	Gas, water and related businesses Hong Kong	 Mainland China	New Energy	Property	Other segments	Total
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, retirement benefit assets, derivative financial instruments and loan and other receivables from non-controlling shareholders.

The Company is domiciled in Hong Kong. The Group's revenue from external customers in Hong Kong for the year ended 31st December 2019 is HK$11,333.5 million (2018: HK$11,521.5 million), and the revenue from external customers in mainland China and other geographical locations is HK$29,294.6 million (2018: HK$27,551.5 million).

At 31st December 2019, the total of non-current assets other than financial instruments located in Hong Kong is HK$31,014.8 million (2018: HK$30,437.3 million), and the total of non-current assets other than financial instruments located in mainland China and other geographical locations is HK$77,782.9 million (2018: HK$74,092.4 million).

For the years ended 31st December 2019 and 2018, the percentage of revenues attributable to the Group's five largest customers is less than 30 per cent.

6 Total operating expenses

	2019 HK$'M	2018 HK$'M
Stores and materials used	**21,803.8**	20,597.9
Manpower costs (note 11)	**3,485.2**	3,295.1
Depreciation and amortisation	**2,753.5**	2,537.2
Other operating items	**4,561.9**	4,259.6
	32,604.4	30,689.8

7 Other gains, net

	2019 HK$'M	2018 HK$'M
Net investment gains (note 8)	**2,228.0**	230.0
Fair value gain on investment property (note 17)	**16.0**	12.5
Provision for assets (note)	**(1,184.9)**	(200.0)
Ineffective portion on cash flow hedges (note 25)	**0.2**	5.8
Others	**(10.6)**	(28.3)
	1,048.7	20.0

Note

The amount included an impairment provision of HK$560.0 million (2018: HK$200.0 million) in relation to mining and oil properties under New Energy business segment and HK$380.0 million (2018: nil) in relation to goodwill and property, plant and equipment related to individual city-gas projects in mainland China.

8 Net investment gains

	2019 HK$'M	2018 HK$'M
(a) Interest income		
Bank deposits	**117.7**	188.0
Listed financial assets at FVOCI	**7.9**	8.0
Loans to associates and joint ventures	**66.1**	90.1
Others	**27.9**	13.2
	219.6	299.3
(b) Net realised and unrealised gains and interest income on financial assets at FVPL and derivative financial instruments		
Listed securities	**1,651.4**	(64.4)
Unlisted securities	**211.0**	148.6
Exchange differences	**(0.7)**	(1.2)
	1,861.7	83.0
(c) Net (losses)/gains on financial assets at FVOCI		
Exchange differences	**(3.7)**	2.8
	(3.7)	2.8
(d) Dividend income		
Listed financial assets at FVPL	**5.9**	3.6
Listed financial assets at FVOCI	**18.4**	21.0
Unlisted financial assets at FVOCI	**81.1**	101.2
	105.4	125.8
(e) Exchange gains/(losses)	**45.0**	(280.9)
	2,228.0	230.0

9 Interest expense

	2019 HK$'M	2018 HK$'M
Interest on bank loans and overdrafts wholly repayable within five years	**921.9**	753.8
Interest on guaranteed notes wholly repayable within five years	**197.6**	413.3
Interest on guaranteed notes not wholly repayable within five years	**294.7**	326.3
Interest on lease liabilities	**16.3**	–
	1,430.5	1,493.4
Less: amount capitalised	**(200.1)**	(316.8)
	1,230.4	1,176.6

The interest expense is capitalised at average rates from 0.47 per cent to 6.37 per cent (2018: 1.35 per cent to 6.18 per cent) per annum.

10 Profit before taxation

Profit before taxation is stated after charging and (crediting) the following:

	2019 HK$'M	2018 HK$'M
Cost of inventories sold	**23,924.2**	22,666.0
Depreciation and amortisation	**2,753.5**	2,537.2
Loss/(gain) on disposal/write off of property, plant and equipment	**25.8**	(1.2)
Gain on disposal of right-of-use assets/leasehold land	**(0.1)**	(40.3)
Impairment loss of trade receivables	**53.7**	37.5
Operating lease rentals		
– land and buildings	**–**	146.5
– plant and equipment	**–**	13.8
Rental income from investment property		
– gross rental income	**(57.7)**	(66.1)
– outgoing expenses	**27.2**	24.2
Auditors' remuneration	**29.3**	27.6
Net loss on residential maintenance (note)	**69.7**	56.1

Note

	2019 HK$'M	2018 HK$'M
Analysis of net loss on residential maintenance:		
Residential maintenance revenue	**(213.3)**	(209.0)
Less expenses:		
Manpower costs	**162.5**	152.3
Other operating and administrative expenses	**120.5**	112.8
Net loss	**69.7**	56.1

11 Manpower costs

(a) Staff costs

	2019 HK$'M	2018 HK$'M
Salaries and wages	**3,033.7**	2,857.1
Pension costs – defined contribution retirement schemes	**435.2**	422.8
Pension costs – defined benefit retirement scheme (note 26)	**16.3**	15.2
	3,485.2	3,295.1

(b) Five highest paid individuals

The five individuals whose emoluments were the highest in the Group for the year include two (2018: two) directors whose emoluments are reflected in the analysis shown in note 12. Details of the emoluments payable to the remaining three (2018: three) individuals during the year are as follows:

	2019 HK$'M	2018 HK$'M
Fee, salaries, allowances and benefits in kind	**9.5**	9.1
Performance bonus	**11.6**	13.4
Contributions to retirement scheme	**3.3**	3.4
	24.4	25.9

Number of individuals whose emoluments fell within:

Emoluments band (HK$'M)	**2019**	2018
10.0 – 11.0	**1**	1
9.0 – 10.0	–	–
8.0 – 9.0	–	1
7.0 – 8.0	**2**	–
6.0 – 7.0	–	1

(c) Emoluments of senior management

Senior management for the years ended 31st December 2019 and 2018 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	Fees HK$'M	Salary, allowances and benefits in kind HK$'M	Performance bonus HK$'M	Contributions to retirement scheme HK$'M	Others HK$'M	Total HK$'M
	Emoluments paid or receivable in respect of a person's services as a director, whether of the Company or its subsidiary undertaking					
2019						
Alfred Chan Wing-kin (Managing Director) (note (i))	**0.4**	**6.4**	**21.3**	**5.8**	**–**	**33.9**
Peter Wong Wai-yee (note (i))	**0.4**	**4.8**	**9.4**	**2.6**	**–**	**17.2**
Lee Shau-kee (note (ii))	**0.7**	**0.3**	**–**	**–**	**–**	**1.0**
Colin Lam Ko-yin	**0.3**	**0.1**	**–**	**–**	**–**	**0.4**
Lee Ka-kit	**0.7**	**–**	**–**	**–**	**–**	**0.7**
Lee Ka-shing	**0.7**	**–**	**–**	**–**	**–**	**0.7**
David Li Kwok-po	**0.7**	**–**	**–**	**–**	**–**	**0.7**
Poon Chung-kwong	**0.7**	**–**	**–**	**–**	**–**	**0.7**
Moses Cheng Mo-chi (note (iii))	**0.7**	**–**	**–**	**–**	**–**	**0.7**
	5.3	**11.6**	**30.7**	**8.4**	**–**	**56.0**

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$6.8 million (2018: HK$0.2 million and HK$6.3 million) respectively, and no share-based payments were received during the year and 2018.

(ii) Dr. Lee Shau-kee retired on 28th May 2019.

(iii) Dr. Moses Cheng Mo-chi was appointed as director on 14th January 2019.

12 Benefits and interests of directors (Continued)

(a) Directors' emoluments (Continued)

Name of director	Fees HK$'M	Salary, allowances and benefits in kind HK$'M	Performance bonus HK$'M	Contributions to retirement scheme HK$'M	Others HK$'M	Total HK$'M
	Emoluments paid or receivable in respect of a person's services as a director, whether of the Company or its subsidiary undertaking					
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

The above remuneration paid to directors of the Company also represents the amount of short-term employee benefits of HK$47.6 million (2018: HK$49.3 million) and post-employment benefits of HK$8.4 million (2018: HK$8.6 million) paid to the Group's senior management during the year ended 31st December 2019. There were no other long-term benefits, termination benefits and share-based payment paid to the Group's senior management during the year (2018: 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:

	2019 HK$'M	2018 HK$'M
Current taxation – provision for Hong Kong Profits Tax at the rate of 16.5% (2018: 16.5%) on the estimated assessable profits for the year	**703.0**	713.6
Current taxation – provision for other countries income tax at the prevailing rates on the estimated assessable profits for the year (note)	**867.2**	822.0
Current taxation – under/(over) provision in prior years	**1.1**	(4.5)
Deferred taxation – origination and reversal of temporary differences	**603.7**	287.5
Withholding tax	**114.6**	89.0
	2,289.6	1,907.6

13 Taxation (Continued)

Note

The prevailing tax rates of mainland China and Thailand range from 15 per cent to 25 per cent (2018: 15 per cent to 25 per cent) and 50 per cent (2018: 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:

	2019 HK$'M	2018 HK$'M
Profit before taxation	**10,403.9**	12,339.5
Less: Share of results of associates	**(1,820.4)**	(3,589.5)
Share of results of joint ventures	**(741.5)**	(1,523.4)
	7,842.0	7,226.6
Calculated at a tax rate of 16.5% (2018: 16.5%)	**1,293.9**	1,192.4
Effect of different tax rates in other countries	**516.4**	359.7
Income not subject to taxation	**(188.1)**	(138.7)
Expenses not deductible for taxation purposes	**523.2**	350.8
Utilisation of previously unrecognised tax losses	**(24.7)**	(29.7)
Under/(over) provision in prior years	**1.1**	(4.5)
Withholding tax	**114.6**	89.0
Others	**53.2**	88.6
	2,289.6	1,907.6

Share of associates' taxation for the year ended 31st December 2019 of HK$498.0 million (2018: HK$463.6 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 2019 of HK$306.3 million (2018: HK$614.8 million) is included in the profit or loss as share of results of joint ventures.

14 Dividends

	2019 HK$'M	2018 HK$'M
Interim, paid of HK12 cents per ordinary share (2018: HK12 cents per ordinary share)	**2,031.0**	1,846.4
Final, proposed of HK23 cents per ordinary share (2018: HK23 cents per ordinary share)	**3,892.8**	3,538.9
	5,923.8	5,385.3

At a meeting held on 19th March 2020, the directors of the Company declared a final dividend of HK23 cents per ordinary share for the year ended 31st December 2019. 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 2019.

15 Earnings per share

The calculation of basic earnings per share is based on the profit attributable to shareholders of HK$6,965.7 million (2018: HK$9,312.8 million) and the weighted average of 16,925,052,244 shares (2018: 16,925,052,244 shares [1]) in issue during the year.

As there were no diluted potential ordinary shares outstanding during the year (2018: nil), the diluted earnings per share for the year ended 31st December 2019 is the same as the basic earnings per share.

1 Adjusted for the bonus share issue in 2019

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 2019	**22,385.4**	**38,043.8**	**3,993.0**	**4,041.2**	**926.2**	**10,682.8**	**80,072.4**
Additions	**839.2**	**609.0**	**306.8**	**71.6**	**0.5**	**5,284.5**	**7,111.6**
Acquisition of business (note 42(a))	**3.1**	**14.2**	**–**	**–**	**–**	**–**	**17.3**
Transfers from capital work in progress	**1,295.9**	**3,169.6**	**13.4**	**2.4**	**5.7**	**(4,487.0)**	**–**
Disposals/write off	**(222.4)**	**(19.1)**	**(114.3)**	**(71.4)**	**–**	**(10.7)**	**(437.9)**
Impairment	**(46.6)**	**(47.0)**	**–**	**(560.0)**	**–**	**(116.5)**	**(770.1)**
Exchange differences	**(286.5)**	**(508.0)**	**(2.2)**	**310.8**	**(16.0)**	**(150.5)**	**(652.4)**
At 31st December 2019	**23,968.1**	**41,262.5**	**4,196.7**	**3,794.6**	**916.4**	**11,202.6**	**85,340.9**
Accumulated depreciation							
At 1st January 2019	**9,018.9**	**9,248.1**	**2,711.2**	**944.4**	**171.0**	**–**	**22,093.6**
Charge for the year	**1,088.9**	**1,085.3**	**296.7**	**49.5**	**17.7**	**–**	**2,538.1**
Disposals/write off	**(169.5)**	**(8.9)**	**(86.9)**	**–**	**–**	**–**	**(265.3)**
Exchange differences	**(91.2)**	**(94.2)**	**(1.4)**	**82.3**	**(3.7)**	**–**	**(108.2)**
At 31st December 2019	**9,847.1**	**10,230.3**	**2,919.6**	**1,076.2**	**185.0**	**–**	**24,258.2**
Net book value							
At 31st December 2019	**14,121.0**	**31,032.2**	**1,277.1**	**2,718.4**	**731.4**	**11,202.6**	**61,082.7**
At 31st December 2018	13,366.5	28,795.7	1,281.8	3,096.8	755.2	10,682.8	57,978.8

The carrying values of the property, plant and equipment related to city-gas projects in mainland China as at 31st December 2019 amounted to approximately HK$27.5 billion in total.

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 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	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

17 Investment property

	2019 HK$'M	2018 HK$'M
At 1st January	**778.0**	764.0
Additions	**36.0**	1.5
Fair value gain (note 7)	**16.0**	12.5
At 31st December	**830.0**	778.0

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 2019 by an independent professionally qualified valuer, Knight Frank Petty Limited which conform to The HKIS Valuation Standards (2017 Edition) shown in note 2(i).

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$19.0 /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 Right-of-use assets/Leasehold land

(a) Right-of-use assets

	Prepaid leasehold land HK$'M	Buildings, plant and equipment and others HK$'M	Total HK$'M
At 1st January 2019, as restated	**2,214.5**	**401.3**	**2,615.8**
Additions	**301.6**	**53.3**	**354.9**
Acquisition of business (note 42(a))	**4.8**	**–**	**4.8**
Depreciation and amortisation	**(65.3)**	**(142.8)**	**(208.1)**
Disposals	**(7.0)**	**–**	**(7.0)**
Exchange differences	**(30.3)**	**(4.9)**	**(35.2)**
At 31st December 2019	**2,418.3**	**306.9**	**2,725.2**

The Group leases various land, office buildings and customer service centres. Rental contracts are made for a range of fixed periods but may have extension options. Lease terms are negotiated on an individual basis and contain a wide range of different terms and conditions. The lease agreements do not impose any covenants, but leased assets may not be used as security for borrowing purposes.

Some leases contain variable payment terms that are linked to sales or net profits generated. Variable lease payments that depend on sales or net profits are recognised in the profit or loss in the period in which the condition that triggers those payments occurs. Most leases are subject to fixed payments.

Extension and termination options are included in a number of leases across the Group. These terms are used to maximise operational flexibility in terms of managing contracts. The majority of extension and termination options held are exercisable only by the Group and not by the respective lessor. There are minimal lease contracts with extension or termination options.

(b) Leasehold land

The Group's interests in leasehold land and land use rights movements during the year ended 31st December 2018 are as follows:

	2018 HK$'M
At 1st January	2,229.3
Additions	179.0
Disposals	(25.7)
Amortisation	(62.0)
Exchange differences	(106.1)
At 31st December	2,214.5

The adoption of HKFRS 16 resulted in changes in terminology used. Prepaid leasehold land previously presented as leasehold land was reclassified to right-of-use assets.

19 Intangible assets

		2019 HK$'M	2018 HK$'M
(a)	**Goodwill**		
	At 1st January	**5,280.5**	5,443.3
	Acquisition of business (note 42(a))	**20.4**	5.9
	Impairment	**(333.0)**	–
	Exchange differences	**(54.3)**	(168.7)
	At 31st December	**4,913.6**	5,280.5
(b)	**Other intangible asset**		
	Cost		
	At 1st January	**504.9**	527.7
	Exchange differences	**(7.4)**	(22.8)
	At 31st December	**497.5**	504.9
	Accumulated amortisation		
	At 1st January	**(103.3)**	(87.4)
	Amortisation	**(17.6)**	(18.0)
	Exchange differences	**0.9**	2.1
	At 31st December	**(120.0)**	(103.3)
	Net book value		
	At 31st December	**377.5**	401.6
	Total intangible assets	**5,291.1**	5,682.1

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 (2018: HK$2,242.0 million) related to the Group's investments in Towngas China. The remaining balance mainly represents goodwill associated with individual city-gas projects (approximately HK$2.5 billion as of 31st December 2019) (after impairment as detailed in note 4(a)). 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 key assumptions used in value-in-use calculations are detailed in note 4(a).

Based on impairment tests performed, impairment provision of HK$333.0 million was recognised as at 31st December 2019 (2018: nil).

20 Subsidiaries

Material non-controlling interests

The total non-controlling interest as at 31st December 2019 is HK$8,803.1 million (2018: HK$7,792.6 million) of which HK$6,557.2 million (2018: HK$5,662.4 million) is attributable to Towngas China and 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.

	Towngas China	
Summarised statement of financial position	**2019 HK$'M**	2018 HK$'M
Assets		
Non-current assets	**29,679.1**	25,962.2
Current assets	**4,992.0**	4,499.0
	34,671.1	30,461.2
Liabilities		
Non-current liabilities	**(8,595.1)**	(8,118.5)
Current liabilities	**(9,284.8)**	(8,138.1)
	(17,879.9)	(16,256.6)
Net assets	**16,791.2**	14,204.6

	Towngas China	
Summarised income statement and comprehensive income statement	**2019 HK$'M**	2018 HK$'M
Revenue	**12,924.4**	11,787.0
Profit before taxation	**2,014.1**	1,892.1
Taxation	**(501.5)**	(479.0)
Profit for the year	**1,512.6**	1,413.1
Other comprehensive income/(loss)	**1,106.6**	(912.3)
Total comprehensive income	**2,619.2**	500.8
Total comprehensive income attributable to non-controlling interests	**147.8**	64.1
Dividend paid to non-controlling shareholders	**90.8**	91.2

20 Subsidiaries (Continued)

Summarised cash flows statement	Towngas China 2019 HK$'M	2018 HK$'M
Net cash generated from operating activities	**1,753.3**	1,284.4
Net cash used in investing activities	**(2,213.1)**	(2,142.9)
Net cash inflow from financing activities	**806.3**	967.5
Net increase in cash and cash equivalents	**346.5**	109.0
Cash and cash equivalents at beginning of year	**1,611.5**	1,605.3
Effect of foreign exchange rate changes	**(20.6)**	(102.8)
Cash and cash equivalents at end of year	**1,937.4**	1,611.5

21 Associates

	2019 HK$'M	2018 HK$'M
Investments in associates, including goodwill	**26,628.4**	25,499.4
Loans to associates – non-current	**847.1**	814.7
	27,475.5	26,314.1
Loan and other receivables from associates – current	**526.7**	356.9
Fair value of listed investments	**12,242.0**	10,712.5

The Group's share of property, plant and equipment, together with goodwill related to individual city-gas projects accounted for as associates of the Group as at 31st December 2019 were carried at approximately HK$9.0 billion. An impairment loss was recognised for these underlying assets of an associate and the Group's share of such impairment loss of HK$69.0 million, which has been included in the Group's share of results of associates for the year ended 31st December 2019.

Loan and other receivables from associates are analysed below:

(i) Loans to associates in mainland China of HK$1,299.7 million (2018: HK$1,107.1 million) with effective interest rates ranging from 4.35 per cent to 7.20 per cent per annum (2018: 4.35 per cent to 7.20 per cent per annum) are unsecured and fully repayable in 2020 to 2021 (2018: 2019 to 2020).

(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 during the year was therefore limited to 12-month expected credit loss.

(iv) Loan and other receivables are denominated in the following currencies:

	2019 HK$'M	2018 HK$'M
USD	**586.0**	560.1
RMB	**785.8**	609.1
HKD	**2.0**	2.4
	1,373.8	1,171.6

21 Associates (Continued)

Particulars of the principal associates as at 31st December 2019 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		RMB2,876.8 million	26.5	PRC	Gas sales and related businesses
港華儲氣有限公司		RMB200 million	39	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		RMB1,680.0 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
河北金建佳天然氣有限公司		RMB90.0 million	20	PRC	LNG receiving terminal; pier
[1] 泰州城投天然氣管網有限公司		RMB150.0 million	47.6	PRC	Natural gas pipeline project
# 佛山水務環保股份有限公司		RMB831.8 million	26.7	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] Ying Tong TGT Network Services (Shenzhen) Co. Ltd.		RMB100.0 million	49	PRC	Telecommunications business

1 Newly formed 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 2019 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 and the respective equity interest held by Towngas China 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
Foran Energy Group Co., Ltd. (Formerly named as Foshan Gas Group Co., Ltd.)	RMB556.0 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	RMB512.6 million	24.4	PRC	Distributed energy systems businesses
Zhuojia Public Engineering (Maanshan) Co., Ltd.	RMB120.0 million	37.5	PRC	Gas pipe assembly

21 Associates (Continued)

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:

	2019 HK$'M	2018 HK$'M
Income	**18,082.5**	17,049.9
Expenses, including taxation	**(16,262.1)**	(13,460.4)
Profit after taxation	**1,820.4**	3,589.5
Other comprehensive income	**81.8**	3.6
Total comprehensive income	**1,902.2**	3,593.1

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.

	CWPI	
Summarised statement of financial position	**2019 HK$'M**	2018 HK$'M
Assets		
Non-current assets	**116,502.0**	115,205.6
Current assets	**1,294.2**	582.3
	117,796.2	115,787.9
Liabilities		
Non-current liabilities	**(18,395.7)**	(18,371.1)
Current liabilities	**(2,814.5)**	(2,199.7)
	(21,210.2)	(20,570.8)
Net assets	**96,586.0**	95,217.1

21 Associates (Continued)

Summarised income statement and statement of comprehensive income	CWPI **2019 HK$'M**	2018 HK$'M
Income	**7,604.6**	19,373.9
Expenses, including taxation	**(2,834.0)**	(2,911.8)
Profit after taxation	**4,770.6**	16,462.1
Other comprehensive income	**68.3**	23.1
Total comprehensive income	**4,838.9**	16,485.2
Share of total comprehensive income (15.79%)	**764.1**	2,603.0
Dividend received from the associate	**547.9**	619.0

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:

	CWPI **2019 HK$'M**	2018 HK$'M
Net assets		
At 1st January	**95,217.1**	82,651.9
Profit for the year	**4,770.6**	16,462.1
Other comprehensive income	**68.3**	23.1
Dividend paid	**(3,470.0)**	(3,920.0)
At 31st December	**96,586.0**	95,217.1

	2019 HK$'M	2018 HK$'M
Carrying value		
Interest in an associate (15.79%)	**15,250.9**	15,034.8

22 Joint ventures

	2019 HK$'M	2018 HK$'M
Investments in joint ventures, including goodwill	**10,613.5**	10,910.4
Loans to joint ventures – non-current	–	39.9
	10,613.5	10,950.3
Loan and other receivables from joint ventures – current	**800.4**	822.6
Amounts due to joint ventures – current	**(943.2)**	(1,049.5)

The Group's share of property, plant and equipment, together with goodwill related to individual city-gas projects accounted for as joint ventures of the Group as at 31st December 2019 were carried at approximately HK$15.0 billion. Impairment losses were recognised for these underlying assets of certain joint ventures and the Group's share of such impairment losses, in aggregate, of HK$581.0 million, which have been included in the Group's share of results of joint ventures for the year ended 31st December 2019.

Loan and other receivables from joint ventures are analysed below:

(i) Loans to joint ventures in mainland China of HK$332.0 million (2018: HK$466.1 million) with effective interest rates ranging from 4.35 per cent to 4.79 per cent per annum (2018: 4.35 per cent to 5.88 per cent per annum) are unsecured and fully repayable in 2020 (2018: 2019 to 2020).

(ii) Loan to a joint venture in Hong Kong of HK$67.3 million (2018: HK$62.0 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 during the year was therefore limited to 12-month expected credit loss.

(v) Loans and other receivables are denominated in the following currencies:

	2019 HK$'M	2018 HK$'M
RMB	**710.5**	786.2
HKD	**89.9**	76.3
	800.4	862.5

Amounts due to joint ventures are analysed below:

(i) Loan from a joint venture of HK$454.0 million (2018: HK$533.5 million) with effective interest rate of 4.44 per cent per annum (2018: 4.44 per cent per annum) is unsecured and repayable in 2020.

(ii) Loans from joint ventures of HK$489.1 million (2018: HK$516.0 million) with effective interest rate of 2.58 per cent per annum (2018: 2.78 – 2.785 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 (2018: denominated in RMB).

22 Joint ventures (Continued)

Particulars of the principal joint ventures as at 31st December 2019 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 Qinhua 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
[1] S&T International Natural Gas Trading Company Limited		HK$10.0 million	40	Hong Kong	Natural gas trading
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
[1] Newly formed during the year

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 2019 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 and the respective equity interest held by Towngas China 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	RMB150.0 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:

	2019 HK$'M	2018 HK$'M
Income	**15,840.2**	15,031.7
Expenses, including taxation	**(15,098.7)**	(13,508.3)
Profit after taxation and total comprehensive income	**741.5**	1,523.4

No individual joint ventures are considered to be material in the Group.

23 Financial assets at fair value through other comprehensive income

	2019 HK$'M	2018 HK$'M
Debt securities (note (a))	**213.9**	204.6
Equity securities (note (b))	**2,928.0**	922.4
	3,141.9	1,127.0

Notes

		2019 HK$'M	2018 HK$'M
(a)	Debt securities		
	Listed – Hong Kong	**81.9**	84.0
	Listed – overseas	**132.0**	120.6
		213.9	204.6

		2019 HK$'M	2018 HK$'M
(b)	Equity securities		
	Listed – Hong Kong	**227.8**	216.8
	Listed – overseas	**2,378.4**	131.5
	Unlisted	**321.8**	574.1
		2,928.0	922.4

Included in the equity securities, it comprises HK$168.6 million (2018: HK$157.5 million) of perpetual bonds and HK$2,759.4 million (2018: 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.

Financial assets at FVOCI are denominated in the following currencies:

	2019 HK$'M	2018 HK$'M
RMB	**2,625.8**	617.9
HKD	**133.6**	147.0
USD	**382.5**	362.1
	3,141.9	1,127.0

24 Financial assets at fair value through profit or loss

	2019 HK$'M	2018 HK$'M
Equity securities (note (a))		
Current	**188.5**	303.5
Non-current	**5,030.6**	3,506.7
	5,219.1	3,810.2

Note

		2019 HK$'M	2018 HK$'M
(a)	Equity securities		
	Listed – Hong Kong	**111.4**	232.6
	Listed – overseas	**2,124.9**	31.5
	Unlisted	**2,982.8**	3,546.1
		5,219.1	3,810.2

Financial assets at FVPL are denominated in the following currencies:

	2019 HK$'M	2018 HK$'M
HKD	**111.4**	232.6
USD	**77.1**	70.9
RMB	**5,030.6**	3,506.7
	5,219.1	3,810.2

25 Derivative financial instruments

	2019		2018	
	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	**42.8**	**(571.0)**	27.9	(558.9)
Cross currency swap contracts – held-for-trading	**42.9**	**–**	22.1	–
Interest rate swap contracts – held-for-trading	**3.3**	**–**	5.4	–
Put option – held-for-trading (note 3)	**265.1**	**–**	–	–
	354.1	**(571.0)**	55.4	(558.9)
Current				
Cross currency swap and interest rate swap contracts – cash flow hedges	**–**	**–**	37.2	(50.6)
Foreign currency forward contracts – held-for-trading	**1.4**	**–**	1.0	(64.3)
	1.4	**–**	38.2	(114.9)

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$0.2 million (2018: HK$5.8 million).

25 Derivative financial instruments (Continued)

The major terms of the outstanding derivative contracts as at 31st December 2019 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						
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 + 0.70%	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
AUD25 million	2025	AUD1 to HKD5.42	3.83%	2.99%	Semi-annually	Semi-annually
JPY10 billion	2022	JPY100 to HKD9.705 – HKD9.897	1.19% – 1.36%	3.33% – 3.46%	Semi-annually	Semi-annually
RMB491 million	2022	HKD1 to RMB0.8539	3 month HIBOR + 0.80%	3.82%	Quarterly	Quarterly
USD50 million	2024	USD1 to RMB6.927	3 month LIBOR + 0.80%	4.05%	Quarterly	Quarterly
JPY2 billion	2027	JPY100 to HKD6.877	0.35%	2.9%	Annually	Quarterly
Foreign currency forward contracts – held-for-trading						
USD2 million/ USD4 million	2020	USD1 to HKD7.7475	Nil	Nil	Monthly	Monthly
USD2 million/ USD4 million	2020	USD1 to HKD7.7480	Nil	Nil	Monthly	Monthly
USD2 million/ USD4 million	2020	USD1 to HKD7.7490	Nil	Nil	Monthly	Monthly
Cross currency swap contracts – held-for-trading						
USD300 million	2024	USD1 to HKD7.8479	4.75%	4.24% – 4.25%	Semi-annually	Quarterly
Interest rate swap contracts – held-for-trading						
HKD270 million	2021	Not applicable	3%	1 month HIBOR + 0.55%	Annually	Annually

Gains and losses recognised in the hedging reserve in equity (note 36) on the swaps as of 31st December 2019 will be continuously released to the profit or loss until the repayment of relevant borrowings.

26 Retirement benefit assets/(liabilities)

	2019 HK$'M	2018 HK$'M
At 31st December	**66.3**	(23.8)

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:

	2019 HK$'M	2018 HK$'M
Fair value of plan assets	**632.6**	546.7
Present value of funded obligations	**(566.3)**	(570.5)
Net assets/(liabilities) in the consolidated statement of financial position	**66.3**	(23.8)

The plan assets did not include any shares of the Company as at 31st December 2019 (2018: nil).

The cost of the defined benefit retirement scheme recognised in the consolidated income statement is as follows:

	2019 HK$'M	2018 HK$'M
Current service cost	**15.8**	16.4
Net interest cost/(income)	**0.4**	(1.3)
Administrative expenses	**0.1**	0.1
Total (note 11)	**16.3**	15.2

The amounts recognised in the other comprehensive income are as follows:

	2019 HK$'M	2018 HK$'M
Actuarial loss due to liability experience	**2.4**	18.8
Actuarial gain due to financial assumption changes	**(7.1)**	(6.0)
Actuarial loss/(gain) due to demographic assumption changes	**0.1**	(9.7)
Actuarial (gains)/losses	**(4.6)**	3.1
Return on plan assets, excluding amounts included in interest income	**(97.5)**	70.3
Total	**(102.1)**	73.4

26 Retirement benefit assets/(liabilities) (Continued)

The movements in the defined benefit obligations are as follows:

	2019 HK$'M	2018 HK$'M
At 1st January	**570.5**	564.5
Current service cost	**15.8**	16.4
Interest cost	**11.6**	11.0
Benefits paid	**(27.0)**	(24.5)
Actuarial (gains)/losses	**(4.6)**	3.1
At 31st December	**566.3**	570.5

The movements in the fair value of plan assets are as follows:

	2019 HK$'M	2018 HK$'M
At 1st January	**546.7**	624.9
Return on plan assets, excluding amounts included in interest income	**97.5**	(70.3)
Interest income recognised in consolidated income statement	**11.2**	12.3
Contribution paid by employer	**4.3**	4.4
Benefits paid	**(27.0)**	(24.5)
Administrative expenses	**(0.1)**	(0.1)
At 31st December	**632.6**	546.7

The movements in the assets/(liabilities) recognised in the consolidated statement of financial position are as follows:

	2019 HK$'M	2018 HK$'M
At 1st January	**(23.8)**	60.4
Remeasurement effects recognised in other comprehensive income	**102.1**	(73.4)
Total cost of defined benefit retirement scheme (note 11)	**(16.3)**	(15.2)
Contribution paid by employer	**4.3**	4.4
At 31st December	**66.3**	(23.8)

26 Retirement benefit assets/(liabilities) (Continued)

The major categories of plan assets as a percentage of total plan assets are as follows:

	2019 %	2018 %
Equity securities	**79.0**	75.0
Debt securities	**19.0**	23.0
Cash	**2.0**	2.0

The principal actuarial assumptions used are as follows:

	2019 %	2018 %
Discount rate	**1.8**	2.1
Expected rate of future salary increases	**4.0**	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 2.5%**	**Increase by 2.6%**
Salary increase rate	**0.25%**	**Increase by 2.4%**	**Decrease by 2.4%**
Maximum salary scale increase rate	**0.25%**	**Increase by 0.0%**	**Decrease by 0.1%**

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 2020 are HK$4.2 million.

26 Retirement benefit assets/(liabilities) (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 10.2 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**
At 31st December 2019			
Expected benefit payments	**135.1**	**194.6**	**548.0**

27 Other non-current assets

	2019 HK$'M	2018 HK$'M
Aviation fuel facility construction receivable (note (a))	**2,827.2**	2,702.7
Other receivables and prepayments (note (b))	**902.6**	771.3
	3,729.8	3,474.0

Notes

(a) Aviation fuel facility construction receivable is denominated in HKD, unsecured and will be recovered by monthly instalments up to 2047.

(b) The balance includes prepayments for inventory and capital expenditures to suppliers.

28 Inventories

	2019 HK$'M	2018 HK$'M
Stores and materials	**1,654.2**	1,844.7
Work in progress	**709.5**	636.0
	2,363.7	2,480.7

The Group wrote down the carrying value of inventories by HK$14.4 million (2018: HK$5.7 million) to its net realisable value during the year ended 31st December 2019.

29 Trade and other receivables

	2019 HK$'M	2018 HK$'M
Trade receivables (note (a))	**3,819.8**	3,563.5
Payments in advance (note (b))	**1,735.9**	1,581.5
Other receivables	**2,445.5**	2,470.9
	8,001.2	7,615.9

Trade and other receivables are denominated in the following currencies:

	2019 HK$'M	2018 HK$'M
RMB	**4,973.2**	4,845.4
HKD	**2,961.9**	2,730.7
USD	**60.0**	33.8
Others	**6.1**	6.0
	8,001.2	7,615.9

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. The aging analysis of the trade receivables, net of impairment provision, is as follows:

	2019 HK$'M	2018 HK$'M
0 – 30 days	**3,408.5**	3,106.9
31 – 60 days	**90.4**	107.7
61 – 90 days	**100.4**	126.4
Over 90 days	**220.5**	222.5
	3,819.8	3,563.5

29 Trade and other receivables (Continued)

Notes (Continued)

(a) (Continued)

The Group applies the HKFRS 9 simplified approach to measuring expected credit losses which uses a lifetime expected credit loss allowance for trade receivables. Note 3(b) provides for details about the calculation of the allowance.

The loss allowance further increased from HK$221.2 million to HK$248.0 million during the year.

(b) Balance mainly represents prepayment for purchase of materials and services in relation to the Group's gas, water and New Energy businesses in Hong Kong and mainland China. As at 31st December 2019, the directors of the Company reviewed the composition of the balance and considered the amount is recoverable.

30 Time deposits, cash and bank balances

	2019 HK$'M	2018 HK$'M
Time deposits over three months	**158.6**	338.6
Time deposits up to three months	**2,463.6**	3,643.7
Cash and bank balances	**5,385.3**	4,857.1
	7,848.9	8,500.8

The average effective interest rates on time deposits in Hong Kong and mainland China are 3.02 per cent and 1.79 per cent per annum respectively (2018: 2.70 per cent and 1.82 per cent per annum). These deposits have average maturity dates within 56 days (2018: 58 days).

Time deposits, cash and bank balances are denominated in the following currencies:

	2019 HK$'M	2018 HK$'M
USD	**106.7**	1,771.5
RMB	**5,249.1**	5,366.8
HKD	**2,604.6**	1,660.0
THB	**24.9**	37.0
Others	**22.2**	4.1
	8,007.5	8,839.4

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 payables and other liabilities

	2019 HK$'M	2018 HK$'M
Trade payables (note (a))	**3,006.5**	3,078.1
Other payables and accruals (note (b))	**4,289.7**	4,225.5
Contract liabilities (note (c))	**7,310.3**	6,625.8
Lease liabilities (note (d))	**111.5**	–
	14,718.0	13,929.4

Notes

(a) The aging analysis of the trade payables is as follows:

	2019 HK$'M	2018 HK$'M
0 – 30 days	**1,292.7**	1,404.7
31 – 60 days	**499.2**	399.3
61 – 90 days	**304.5**	300.0
Over 90 days	**910.1**	974.1
	3,006.5	3,078.1

(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 services.

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:

	2019 HK$'M	2018 HK$'M
Revenue recognised that was included in the contract liabilities balance at the beginning of the year	**3,265.4**	3,378.3

As at 31st December 2019, the amount of unsatisfied performance obligations expected to be recognised within one year and after one year are HK$3,773.2 million (2018: HK$3,664.9 million) and HK$4,032.5 million (2018: HK$4,246.5 million) respectively.

(d) As at 31st December 2019, the weighted average incremental borrowing rate applied to the lease liabilities were 3% for leases in Hong Kong and 5% for leases in mainland China.

Trade payables and other liabilities are denominated in the following currencies:

	2019 HK$'M	2018 HK$'M
RMB	**12,497.7**	11,648.3
HKD	**2,037.3**	2,064.9
USD	**163.6**	199.5
Others	**19.4**	16.7
	14,718.0	13,929.4

32 Borrowings

	2019 HK$'M	2018 HK$'M
Non-current		
Bank and other loans	**14,646.2**	14,400.7
Guaranteed notes (note (a))	**14,049.4**	13,208.6
	28,695.6	27,609.3
Current		
Bank and other loans	**9,240.6**	7,563.0
Guaranteed notes (note (a))	–	499.7
Redeemable perpetual securities (note (b))	–	2,349.6
	9,240.6	10,412.3
Total borrowings	**37,936.2**	38,021.6

Notes

(a) Guaranteed notes comprise:

The HK$11,966.0 million, RMB400.0 million, AUD161.0 million and JPY12,000.0 million (2018: HK$11,608.0 million, RMB400.0 million, AUD161.0 million and JPY12,000.0 million) (which in aggregate is equivalent to HK$14,154.3 million (2018: HK$13,809.3 million)) guaranteed notes were issued by HKCG (Finance) Limited, a wholly-owned subsidiary of the Company, between 2nd June 2009 and 28th October 2019. 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.

(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 for cash. The perpetual capital securities are guaranteed by the Company, bear distribution at a rate of 4.75 per cent per annum for the first five years and thereafter will have a floating distribution rate. The perpetual capital securities are perpetual and are redeemable, at the option of the Group, in January 2019 or thereafter every six months on the distribution payment date. The distribution payment can be deferred at the discretion of the Group. Therefore, they are 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.

New perpetual capital securities of the same amount, i.e. US$300.0 million, were issued subsequently in February 2019 (note 37) to refinance the redemption and were treated as equity in the consolidated statement of financial position as at 31st December 2019. The carrying value of these securities as at 31st December 2019 is HK$2,384.2 million.

32 Borrowings (Continued)

Notes (Continued)

(c) The maturity of borrowings is as follows:

	Bank and other loans		Guaranteed notes and redeemable perpetual securities	
	2019 HK$'M	2018 HK$'M	**2019 HK$'M**	2018 HK$'M
Within 1 year	**9,240.6**	7,563.0	**–**	2,849.3
Between 1 and 2 years	**4,775.7**	1,841.3	**988.4**	–
Between 2 and 5 years	**9,686.3**	12,541.0	**3,990.7**	4,039.3
Wholly repayable within 5 years	**23,702.6**	21,945.3	**4,979.1**	6,888.6
Wholly repayable over 5 years	**184.2**	18.4	**9,070.3**	9,169.3

(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:

	2019					2018				
	HKD	**USD**	**RMB**	**AUD**	**JPY**	HKD	USD	RMB	AUD	JPY
Bank and other loans	**3.3%**	**4.3%**	**4.3%**	**N/A**	**1.2%**	2.9%	4.4%	4.6%	N/A	1.2%
Guaranteed notes and redeemable perpetual securities	**3.4%**	**N/A**	**2.9%**	**3.1%**	**3.3%**	3.5%	4.8%	2.9%	3.1%	3.3%

(e) Saved as disclosed above, carrying value of borrowings 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:

	2019 HK$'M	2018 HK$'M
HKD	**20,694.2**	21,994.9
RMB	**14,305.0**	11,118.7
USD	**1,181.7**	3,146.6
AUD	**880.2**	888.6
JPY	**875.1**	872.8
	37,936.2	38,021.6

33 Deferred taxation

The movements in the deferred taxation are as follows:

	2019 HK$'M	2018 HK$'M
At 1st January	**6,099.1**	5,723.1
Changes in accounting policy	**(5.7)**	92.0
At 1st January (restated)	**6,093.4**	5,815.1
Charged to the profit or loss	**718.3**	376.5
Charged to other comprehensive income	**497.2**	19.6
Withholding tax	**(45.1)**	(33.1)
Exchange differences	**(83.3)**	(79.0)
At 31st December	**7,180.5**	6,099.1

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		Financial instruments		Others		Total	
Deferred tax liabilities	**2019 HK$'M**	2018 HK$'M	**2019 HK$'M**	2018 HK$'M	**2019 HK$'M**	2018 HK$'M	**2019 HK$'M**	2018 HK$'M	**2019 HK$'M**	2018 HK$'M
At 1st January	**3,499.0**	3,257.3	**1,679.1**	1,679.0	**110.0**	–	**830.1**	805.9	**6,118.2**	5,742.2
Changes in accounting policy	**–**	–	**(0.3)**	–	**–**	92.0	**(5.4)**	–	**(5.7)**	92.0
At 1st January (restated)	**3,499.0**	3,257.3	**1,678.8**	1,679.0	**110.0**	92.0	**824.7**	805.9	**6,112.5**	5,834.2
Charged/(credited) to profit or loss	**275.0**	307.3	**(88.7)**	(10.6)	**434.9**	–	**97.1**	79.8	**718.3**	376.5
Charged to other comprehensive income	**–**	–	**–**	–	**497.2**	19.6	**–**	–	**497.2**	19.6
Withholding tax	**–**	–	**–**	–	**–**	–	**(45.1)**	(33.1)	**(45.1)**	(33.1)
Exchange differences	**(166.0)**	(65.6)	**128.2**	10.7	**(8.1)**	(1.6)	**(37.4)**	(22.5)	**(83.3)**	(79.0)
At 31st December	**3,608.0**	3,499.0	**1,718.3**	1,679.1	**1,034.0**	110.0	**839.3**	830.1	**7,199.6**	6,118.2

	Provisions		Tax losses		Total	
Deferred tax assets	**2019 HK$'M**	2018 HK$'M	**2019 HK$'M**	2018 HK$'M	**2019 HK$'M**	2018 HK$'M
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					**7,180.5**	6,099.1

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$762.6 million (2018: HK$705.4 million) in respect of losses amounting to HK$3,270.7 million (2018: HK$3,025.1 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$2,622.2 million (2018: HK$2,425.9 million) which will expire at various dates up to and including 2024 (2018: 2023).

34 Other non-current liabilities

	2019 HK$'M	2018 HK$'M
Customers' deposits (note (a))	**1,389.3**	1,371.5
Contract liabilities (note (b))	**734.3**	637.7
Loan payable to non-controlling shareholders	**30.2**	–
Lease liabilities (note (c))	**226.9**	–
	2,380.7	2,009.2

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.

(b) Contract liabilities include only the non-current portion. The current portion is disclosed in note 31 in the report.

(c) Lease liabilities include only lease with contractual maturities over 1 year, the current portion is disclosed in note 31 in the report.

35 Share capital

	Number of shares		Share capital	
	2019	2018	2019 HK$'M	2018 HK$'M
Issued and fully paid:				
At beginning of year	**15,386,411,131**	13,987,646,483	**5,474.7**	5,474.7
Bonus shares	**1,538,641,113**	1,398,764,648	–	–
At end of year	**16,925,052,244**	15,386,411,131	**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
As at 1st January 2019	93.3	53.7	(651.3)	57,430.3	56,926.0
Adjustment on adoption of HKFRS 16, net of taxation (note 2(b))	–	–	–	(30.6)	(30.6)
As at 1st January 2019 (restated)	93.3	53.7	(651.3)	57,399.7	56,895.4
Profit attributable to shareholders	–	–	–	6,965.7	6,965.7
Other comprehensive income:					
Remeasurements of retirement benefit	–	–	–	102.1	102.1
Change in value of financial assets at FVOCI	1,030.6	–	–	–	1,030.6
Change in fair value of cash flow hedges	–	(15.1)	–	–	(15.1)
Share of other comprehensive income of associates	71.0	10.8	–	–	81.8
Exchange differences	–	–	(777.0)	–	(777.0)
Total comprehensive income for the year	1,101.6	(4.3)	(777.0)	7,067.8	7,388.1
Further acquisition of subsidiaries (note 42(b))	–	–	–	21.1	21.1
2018 final dividend paid	–	–	–	(3,538.9)	(3,538.9)
2019 interim dividend paid	–	–	–	(2,031.0)	(2,031.0)
At 31st December 2019	1,194.9	49.4	(1,428.3)	58,918.7	58,734.7
Balance after 2019 final dividend proposed	1,194.9	49.4	(1,428.3)	55,025.9	54,841.9
2019 final dividend proposed	–	–	–	3,892.8	3,892.8
	1,194.9	49.4	(1,428.3)	58,918.7	58,734.7

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 2018	7.0	138.8	1,651.4	53,166.9	54,964.1
Changes in accounting policies	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

37 Perpetual capital securities

In December 2018, a redemption notice was issued that the issuer will redeem all of the old 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 current borrowings as at 31st December 2018.

In February 2019, the Group issued the new perpetual capital securities, amounting to US$300 million through, Towngas (Finance) Limited, a wholly-owned subsidiary for cash.

The perpetual capital securities are guaranteed by the Company, bear distribution at a rate of 4.75 per cent per annum for the first five years and thereafter at a fixed distribution rate. With no fixed maturity and the distribution payment can be deferred at the discretion of the Group, and these perpetual capital securities are redeemable at the Group's option on or after 12th February 2024, they are classified as equity instruments, and recorded in equity in the consolidated statement of financial position.

38 Contingent liabilities

The Company and the Group did not have any material contingent liabilities as at 31st December 2019 and 2018.

39 Commitments

(a) Capital expenditures for property, plant and equipment

	2019 HK$'M	2018 HK$'M
Contracts had been entered into but not brought into the consolidated financial statements at 31st December	**4,491.2**	3,496.0

(b) Share of capital expenditures for property, plant and equipment of joint ventures

	2019 HK$'M	2018 HK$'M
Contracts had been entered into but not brought into the consolidated financial statements at 31st December	**3,062.6**	2,912.1

(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 2019, the Group's commitments to these projects were approximately HK$2,303.8 million (2018: HK$1,848.6 million).

(d) Lease commitments

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 2019, future aggregate minimum lease payments receivable under non-cancellable operating leases are as follows:

	2019 HK$'M	2018 HK$'M
Not later than 1 year	**16.4**	23.7
Later than 1 year and not later than 5 years	**14.4**	14.5
	30.8	38.2

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

	2019 **HK$'M**	2018 HK$'M
Associates		
Sale of goods and services (note (i))	**18.2**	20.2
Loan interest income (note (ii))	**53.7**	79.8
Joint ventures		
Sale of goods and services (note (i))	**85.4**	69.6
Loan interest income (note (ii))	**9.5**	12.8
Other related parties		
Sale of goods and services (note (i))	**25.0**	65.7
Interest income from bank deposits (note (i))	**1.3**	3.3

40 Related party transactions (Continued)

(b) Interest expense and purchase of goods and services

	2019 HK$'M	2018 HK$'M
Associates		
Purchase of goods and services (note (i))	**538.6**	468.2
Joint ventures		
Purchase of goods and services (note (i))	**44.6**	75.7
Loan interest expenses (note (ii))	**32.5**	27.6
Other related parties		
Purchase of goods and services (note (i))	**22.5**	21.9
Interest expense on bank loans (note (i))	**18.2**	25.0

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

	2019 HK$'M	2018 HK$'M
Time deposits and interest receivables	**404.9**	–
Bank loans and interest payables	**156.4**	443.1
Trade receivables	**3.8**	4.5
Trade payables	**0.1**	–

Note

For the terms and year end balances of time deposits and interest receivables, bank loans and interest payables, trade receivables and trade payables, please refer to notes 29, 30, 31 and 32.

(d) Other related party transactions are also disclosed in note 12.

41 Notes to consolidated cash flow statement

(a) Reconciliation of profit before taxation to net cash from operating activities

	2019 HK$'M	2018 HK$'M
Profit before taxation	**10,403.9**	12,339.5
Share of results of associates	**(1,820.4)**	(3,589.5)
Share of results of joint ventures	**(741.5)**	(1,523.4)
Fair value gain on investment property	**(16.0)**	(12.5)
Impairment of trade receivables	**53.7**	37.5
Provision for assets	**851.9**	200.0
Ineffective portion on cash flow hedges	**(0.2)**	(5.8)
Interest income	**(219.6)**	(299.3)
Interest expense	**1,230.4**	1,176.6
Dividend income from investments in securities	**(105.4)**	(125.8)
Depreciation and amortisation	**2,753.5**	2,537.2
Impairment provision on goodwill	**333.0**	–
Loss/(gain) on disposal/write off of property, plant and equipment	**25.8**	(1.2)
Gain on disposal of right-of-use assets/leasehold land	**(0.1)**	(40.3)
Net realised loss/(gain) on financial assets at FVOCI	**3.7**	(2.8)
Net realised and unrealised gain on investments in financial assets at FVPL and derivative financial instruments	**(1,861.7)**	(83.0)
Tax paid	**(930.0)**	(1,542.7)
Exchange differences	**(45.0)**	280.9
Changes in working capital		
Increase in customers' deposits	**17.9**	39.9
Decrease in inventories	**92.8**	44.8
Increase in trade and other receivables	**(953.7)**	(621.9)
Increase in trade payables and other liabilities	**797.9**	618.2
Increase in asset retirement obligations	**29.5**	1.7
Changes in retirement benefit assets	**12.0**	10.8
Net cash from operating activities	**9,912.4**	9,438.9

41 Notes to consolidated cash flow statement (Continued)

(b) Reconciliation of liabilities arising from financing activities

	Leases HK$'M	Borrowings HK$'M
At 31st December 2018	–	38,021.6
Recognised on adoption of HKFRS 16 (note 2(b))	432.4	–
At 1st January 2019	432.4	38,021.6
Cash flows	(144.9)	2,570.8
Exchange differences	(7.3)	(245.9)
Redemption of perpetual capital securities	–	(2,405.4)
Other non-cash movement	58.2	(4.9)
At 31st December 2019	338.4	37,936.2

(c) During the year ended 31st December 2019, total cash outflow for lease was included in the statement of cash flows in (a) interest paid of HK$16.3 million under "financing activities", (b) principal elements of lease payments of HK$128.6 million under "financing activities".

42 Business combinations

(a) Business combination under Towngas China

For the year ended 31st December 2019, Towngas China acquired the following business:

	Purchase consideration HK$'M
青島匯森石油天然氣有限公司	42.5

The inclusion of the acquired business does not have a significant impact of the Group's turnover and profit for the year.

42 Business combinations (Continued)

(a) Business combination under Towngas China (Continued)

The details of fair value of net identifiable assets acquired and goodwill are as follows:

	Acquiree's fair value at acquisition date HK$'M
Property, plant and equipment (note 16)	**17.3**
Right-of-use assets (note 18(a))	**4.8**
Trade and other receivables	**0.2**
Trade and other payables	**(0.2)**
Net assets	**22.1**
Non-controlling interests	**–**
Net identifiable assets acquired	**22.1**
Goodwill (note 19(a))	**20.4**
Purchase consideration	**42.5**

The goodwill is attributable to the future profitability of the acquired business and the synergies expected to arise after the Group's acquisition.

Net cash flow arising on acquisition:

	HK$'M
Purchase consideration for acquisition of business, settled in cash	**42.5**
Cash and cash equivalents in business acquired	**–**
Cash outflow on acquisition of business	**42.5**

(b) 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$37.5 million. The difference between the share of net assets value acquired and total consideration of HK$21.1 million was recognised directly in equity for these transactions with non-controlling interests.

(c) Apart from the above, there were no other material acquisitions during the year ended 31st December 2019.

43 Statement of financial position of the Company

	2019 HK$'M	2018 HK$'M
Assets		
Non-current assets		
Property, plant and equipment	**12,510.2**	12,111.1
Right-of-use assets	**285.5**	–
Leasehold land	**–**	211.0
Subsidiaries	**22,169.1**	19,508.2
Associate	**664.7**	631.0
Joint ventures	**831.7**	831.7
Retirement benefit assets	**66.3**	–
	36,527.5	33,293.0
Current assets		
Inventories	**1,039.4**	1,125.2
Trade and other receivables	**2,203.4**	2,114.5
Loan and other receivables from associates	**21.6**	21.6
Other receivables from joint ventures	**32.6**	24.3
Derivative financial instruments	**0.5**	–
Time deposits up to three months, cash and bank balances	**1,006.2**	1,587.2
	4,303.7	4,872.8
Current liabilities		
Trade payables and other liabilities	**(1,500.5)**	(1,537.9)
Provision for taxation	**(663.6)**	(187.4)
Borrowings	**(1,650.0)**	–
	(3,814.1)	(1,725.3)
Total assets less current liabilities	**37,017.1**	36,440.5
Non-current liabilities		
Loan and other payables to subsidiaries	**(13,456.2)**	(12,333.4)
Deferred taxation	**(1,439.4)**	(1,393.5)
Retirement benefit liabilities	**–**	(23.8)
Borrowings	**(791.8)**	(1,040.8)
Other non-current liabilities	**(1,413.3)**	(1,355.4)
	(17,100.7)	(16,146.9)
Net assets	**19,916.4**	20,293.6

43 Statement of financial position of the Company (Continued)

	2019 HK$'M	2018 HK$'M
Capital and reserves		
Share capital	**5,474.7**	5,474.7
Retained profits (note (a))	**14,441.7**	14,818.9
	19,916.4	20,293.6

Approved by the Board of Directors on 19th March 2020

Lee Ka-kit
Director

David Li Kwok-po
Director

43 Statement of financial position of the Company (Continued)

Note

(a) Retained profits

	HK$'M
At 1st January 2019	**14,818.9**
Changes in accounting policy (in relation to HKFRS 16)	**(1.4)**
At 1st January 2019 (restated)	**14,817.5**
Profit attributable to shareholders	**5,092.0**
Other comprehensive income:	
Remeasurements of retirement benefit	**102.1**
Total comprehensive income for the year	**5,194.1**
2018 final dividend paid	**(3,538.9)**
2019 interim dividend paid	**(2,031.0)**
At 31st December 2019	**14,441.7**
Balance after 2019 final dividend proposed	**10,548.9**
2019 final dividend proposed	**3,892.8**
	14,441.7
At 1st January 2018	14,730.0
Profit attributable to shareholders	5,225.9
Other comprehensive income:	
Remeasurements of retirement benefit	(73.4)
Total comprehensive income for the year	5,152.5
2017 final dividend paid	(3,217.2)
2018 interim dividend paid	(1,846.4)
At 31st December 2018	14,818.9
Balance after 2018 final dividend proposed	11,280.0
2018 final dividend proposed	3,538.9
	14,818.9

44 Event after the reporting period

The outbreak of the Coronavirus Disease 2019 (the "COVID-19") causing pneumonia has been expanded across China and globally after the year end of 2019. While the impact of the COVID-19 on the mainland economy for the whole of 2020 is still uncertain, it will inevitably, unfavourably affect commercial and industrial gas sales in the short term. With public utilities as its core business, the Group has a relatively strong resilience to the impact of economic downturns, given its continuing efforts to broaden sources of revenue and cut expenditure and operating costs. It is expected that when the epidemic is over, the Group's businesses will return to normal within a relatively short period of time. Meanwhile, management will continue to assess the impact on the Group's operations and financial performance and closely monitor the Group's exposure to the risks and uncertainties in connection with the coronavirus pneumonia epidemic.

Subsidiaries

The following is a list of the principal subsidiaries as at 31st December 2019:

	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
	Jingxian Hong Kong and China Gas Company Limited	RMB79.0 million	81	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
	常州金壇港華燃氣有限公司	RMB60.0 million	60	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
†	新密港華燃氣有限公司	US$12.5 million	100	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 2019: (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)				
† 港華支付科技（深圳）有限公司	RMB28.0 million	100	PRC	Payment gateway and related businesses
濬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	2,870,687,008 shares of HK$0.1 each	67.8	Cayman Islands/ Hong Kong	Investment holding
1 Hong Kong and China Gas Agricultural Investment (Nanjing) Limited	RMB30.0 million	100	PRC	Agricultural and related businesses
港華儲氣（金壇）有限公司	RMB300.0 million	100	PRC	Gas storage project
The following subsidiaries engaged in gas businesses are held by Towngas China and the respective equity interest held by Towngas China 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 Hongkong and China Gas Co. Ltd.	*RMB40.0 million*	*85*	*PRC*	*Gas sales and related businesses*
† *Chizhou Hong Kong and China Gas Company Ltd*	*RMB70.0 million*	*100*	*PRC*	*Gas sales and related businesses*
Dafeng Hong Kong and China Gas Company Limited	*RMB80.0 million*	*51*	*PRC*	*Gas sales and related businesses*

† Wholly foreign-owned enterprises
# Direct subsidiaries of the Company
* A listed company in The Stock Exchange of Hong Kong Limited
1 Newly formed during the year

Subsidiaries (Continued)

The following is a list of the principal subsidiaries as at 31st December 2019: (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)				
† *Dalian Changxing Hong Kong and China Gas Co. Ltd.*	*US$14.0 million*	*100*	*PRC*	*Gas sales and related businesses*
† *Dalian Lvshun Hong Kong and China Gas Co. Ltd.*	*US$15.0 million*	*100*	*PRC*	*Gas sales and related businesses*
Da Yi Hong Kong and China Gas Company Limited	*RMB20.0 million*	*100*	*PRC*	*Gas sales and related businesses*
† *Feicheng Hong Kong and China Gas Company Limited*	*RMB32.0 million*	*100*	*PRC*	*Gas sales and related businesses*
† *阜新大力燃氣有限責任公司*	*RMB13.9 million*	*100*	*PRC*	*Gas sales and related businesses*
Fuxin Hongkong and China Gas Company Limited	*RMB77.2 million*	*90*	*PRC*	*Gas sales and related businesses*
† *阜新新邱港華燃氣有限公司*	*RMB34.0 million*	*100*	*PRC*	*Gas sales and related businesses*
† *Gao Chun Hong Kong and China Gas Co., Ltd.*	*US$7.5 million*	*100*	*PRC*	*Gas sales and related businesses*
† *Gongzhuling Hong Kong and China Gas Company Limited*	*RMB88.0 million*	*100*	*PRC*	*Gas sales and related businesses*
† *廣西中威管道燃氣發展集團有限責任公司*	*RMB30.0 million*	*100*	*PRC*	*Gas sales and related businesses*
† *Guilin Hong Kong & China Gas Co., Ltd.*	*RMB30.0 million*	*100*	*PRC*	*Gas sales and related businesses*
† *Huang Shan Hong Kong & China Gas Co., Ltd.*	*RMB40.0 million*	*100*	*PRC*	*Gas sales and related businesses*
† *Huangshan Huizhou Hong Kong & China Gas Co., Ltd.*	*US$2.1 million*	*100*	*PRC*	*Gas sales and related businesses*
† *Huang Shan Taiping Hong Kong & China Gas Co., Ltd.*	*US$3.5 million*	*100*	*PRC*	*Gas sales and related businesses*
Huzhou Hong Kong and China Gas Company Limited	*US$10.5 million*	*98.9*	*PRC*	*Gas sales and related businesses*
Jiajiang Hong Kong & China Gas Company Limited	*RMB20.0 million*	*70*	*PRC*	*Gas sales and related businesses*
Jianping Hong Kong and China Gas Company Limited	*RMB58.0 million*	*80*	*PRC*	*Gas sales and related businesses*
簡陽港華燃氣有限公司	*RMB150.0 million*	*100*	*PRC*	*Gas sales and related businesses*
Ji Nan Ping Yin Hong Kong & China Gas Co., Ltd.	*RMB200.0 million*	*82.2*	*PRC*	*Gas sales and related businesses*
九江港華燃氣有限公司	*RMB10.0 million*	*60*	*PRC*	*Gas sales and related businesses*
† *Kazuo Hong Kong & China Gas Co., Ltd.*	*US$6.4 million*	*100*	*PRC*	*Gas sales and related businesses*
† *Laiyang Hong Kong and China Gas Co., Ltd.*	*US$11.5 million*	*100*	*PRC*	*Gas sales and related businesses*
† *Lezhi Hong Kong and China Gas Company Limited*	*RMB30.0 million*	*100*	*PRC*	*Gas sales and related businesses*
† *Liuzhou Hong Kong & China Gas Co., Ltd.*	*RMB50.0 million*	*100*	*PRC*	*Gas sales and related businesses*
† *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*

† Wholly foreign-owned enterprises

Subsidiaries (Continued)

The following is a list of the principal subsidiaries as at 31st December 2019: (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)				
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	*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	*RMB50.0 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*
† *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*

† Wholly foreign-owned enterprises

Subsidiaries (Continued)

The following is a list of the principal subsidiaries as at 31st December 2019: (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)				
Yan Shan Hong Kong & China Gas Co., Ltd.	*RMB10.0 million*	*90*	*PRC*	*Gas sales and related businesses*
Yangxin Hongkong & 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	*RMB40.0 million*	*90*	*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*	*RMB250.0 million*	*100*	*PRC*	*Investment holding*
† *Towngas Investments Limited*	*US$200.0 million*	*100*	*PRC*	*Investment holding*
青島嶗山灣港華能源有限公司	*RMB30.0 million*	*60*	*PRC*	*Gas sales and related businesses*
唐山港能投智慧能源有限公司	*RMB80.0 million*	*49*	*PRC*	*Distributed energy systems businesses*
Tangshan Fengnan Towngas China Energy Co., Ltd.	*RMB96.0 million*	*45*	*PRC*	*Distributed energy systems businesses*
† *廣西港華智慧能源有限公司*	*RMB10.0 million*	*100*	*PRC*	*Distributed energy systems businesses*
Maanshan Towngas China Energy Co., Ltd.	*RMB50.0 million*	*85*	*PRC*	*Distributed energy systems businesses*
青島港能投智慧能源有限公司	*RMB10.0 million*	*96*	*PRC*	*Distributed energy systems businesses*
瀋陽智慧能源系統科技有限公司	*RMB100.0 million*	*55*	*PRC*	*Distributed energy systems businesses*
徐州工業園區中港熱力有限公司	*RMB160.0 million*	*49.8*	*PRC*	*Distributed energy systems businesses*
Xuzhou Economic and Technological Development Zone Towngas China Energy Co., Ltd.	*RMB80.0 million*	*70*	*PRC*	*Distributed energy systems businesses*
陽信港能投智慧能源有限公司	*RMB15.0 million*	*67.8*	*PRC*	*Distributed energy systems businesses*
† *Shenzhen Towngas China Energy Co., Ltd.*	*RMB6.0 million*	*100*	*PRC*	*Distributed energy systems businesses*
† *U-Tech (Guang Dong) Engineering Construction Co., Ltd*	*RMB10.0 million*	*100*	*PRC*	*Engineering and related business*

† Wholly foreign-owned enterprises

Subsidiaries (Continued)

The following is a list of the principal subsidiaries as at 31st December 2019: (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$59.9 million	100	PRC	Chemical business
[1] Hebei ECO Biofuel Company Limited	RMB200.0 million	100	PRC	Chemical business
Hubei ECO Bioenergy Company Limited	RMB15.0 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
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
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
Kaifeng ECO Clean Energy Co., Ltd.	US$2.4 million	100	PRC	Vehicular fuel refilling station

[1] Newly formed during the year
† Wholly foreign-owned enterprises

Subsidiaries (Continued)

The following is a list of the principal subsidiaries as at 31st December 2019: (Continued)

Name	Issued share capital/ registered capital	Percentage of issued/ registered capital held	Place of incorporation/ operation	Principal activity
New Energy businesses (Continued)				
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
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
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
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
陝西易高億達清潔能源有限公司	RMB12.0 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

Subsidiaries (Continued)

The following is a list of the principal subsidiaries as at 31st December 2019: (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
Towngas Telecommunications Fixed Network Limited	HK$35.0 million	100	Hong Kong	Telecommunications business
† Towngas Telecom (Fengxian) Company Limited	RMB7.5 million	100	PRC	Telecommunications business
† Towngas Telecom (Peixian) Company Limited	RMB9.0 million	100	PRC	Telecommunications business
Towngas Telecom (Shandong) Company Limited	RMB40.0 million	90.1	PRC	Telecommunications business
Towngas Chibo Data Service (Jinan) Co., Ltd.	RMB168.0 million	87.4	PRC	Telecommunications business
† Towngas Telecommunications (Shenzhen) 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	RMB179.5 million	100	PRC	Telecommunications business
萊陽名氣通電訊有限公司	US$1.6 million	90	PRC	Telecommunications business
卓銳智高（武漢）科技有限公司 (Formerly named as Hong Kong and China Technology (Wuhan) Company Limited)	RMB51.2 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

† Wholly foreign-owned enterprises

Subsidiaries (Continued)

The following is a list of the principal subsidiaries as at 31st December 2019: (Continued)

Name	Issued share capital/ registered capital	Percentage of issued/ registered capital held	Place of incorporation/ operation	Principal activity
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	67.8	Hong Kong	Financing
Towngas (Finance) Limited	HK$100	100	British Virgin Islands	Financing
Barnaby Assets Limited	US$1	100	British Virgin Islands/ Hong Kong	Securities investment
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
[1] ECO Biofuel Technology Company Limited	HK$100	100	Hong Kong	Investment holding
[1] ECO Biotechnology Company 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	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
[1] Hong Kong & China Gas LNG International Trading Limited	US$1	100	British Virgin Islands	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

Direct subsidiaries of the Company
[1] Newly formed during the year

Subsidiaries (Continued)

The following is a list of the principal subsidiaries as at 31st December 2019: (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 (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
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	US$1	100	British Virgin Islands	Investment holding

Subsidiaries (Continued)

The following is a list of the principal subsidiaries as at 31st December 2019: (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 (Hainan) Limited	HK$100	100	Hong Kong	Investment holding
[1] Hong Kong and China Gas (Jiangsu) Agricultural 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
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	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

[1] Newly formed during the year
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

Directors
Lee Ka-kit (Chairman)
Lee Ka-shing (Chairman)
(both appointed as Joint Chairmen with effect from the conclusion of the annual general meeting held on 28th May 2019)
Colin Lam Ko-yin
David Li Kwok-po*
Alfred Chan Wing-kin
Poon Chung-kwong*
Peter Wong Wai-yee
Moses Cheng Mo-chi*

* *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

Board Audit and Risk Committee
David Li Kwok-po (Chairman)
Poon Chung-kwong
Moses Cheng Mo-chi

Remuneration Committee
David Li Kwok-po (Chairman)
Lee Ka-kit
Lee Ka-shing
Poon Chung-kwong
Moses Cheng Mo-chi

Nomination Committee
Lee Ka-kit (Chairman)
Lee Ka-shing (Chairman)
David Li Kwok-po
Poon Chung-kwong
Moses Cheng Mo-chi

Environmental, Social and Governance Committee
Alfred Chan Wing-kin (Chairman)
Peter Wong Wai-yee

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 and
Registered Public Interest Entity Auditor
22nd Floor, Prince's Building,
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, 20th August 2019
Full-Year Results	Announced on Thursday, 19th March 2020
Annual Report	Posted to Shareholders on Wednesday, 22nd April 2020
Register of Members	(i) To be closed from Tuesday, 2nd June 2020 to Friday, 5th June 2020, 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 Thursday, 11th June 2020 to Monday, 15th June 2020, 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 Friday, 5th June 2020
Dividends – Interim	HK12 cents – Paid on Wednesday, 2nd October 2019
– Final (Proposed)	HK23 cents – Payable on Tuesday, 23rd June 2020
Bonus Issue of Shares (Proposed)	Share certificates to be posted to Shareholders on Tuesday, 23rd June 2020

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.

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