

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



# living forward

ANNUAL REPORT 2016







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# delicious

# A NEW DEFINITION OF LIFESTYLE

Here at Towngas, we strive to move life forward. From homes to businesses and throughout every sector in society, our innovative ideas are woven into the very fabric of life in Hong Kong and the mainland, driving a cleaner and more sustainable future for the generations to come.



fun.

green.

## KEY HIGHLIGHTS OF 2016

#### Over 131 CITY-GAS PROJECTS

in 23 provinces, autonomous regions and municipalities in mainland China, serving over 23 million residential, commercial and industrial customers

Hua Yan Water started a new BIO-WASTE TREATMENT PROJECT with a facility that handles food waste, green waste, etc, for conversion into high-value products

Launched the first-ever RESIDENTIAL GAS CLOTHES DRYER on the mainland and sold 10,000 units, each boosting gas consumption by 30 per cent Our LANDFILL GAS FACILITIES in Hong Kong will contribute around 5 per cent of our local gas production

TOTAL KITCHEN SOLUTION sales brought our projects market share in Hong Kong to 30 per cent

We strongly supported INCLUSION AND HARMONY by launching a wide range of activities both for staff and the community

#### 2016 HKMA Quality Award Grand Award (Towngas China)

by The Hong Kong Management Association

#### History Histor

#### 2015 BOCHK Corporate Environmental Leadership Awards – Gold Award (Manufacturing Sector)

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



2016

AWARDS AND

RECOGNITIONS

#### 7th Hong Kong Corporate Citizenship Awards

Enterprise category – Gold Award Volunteer Team category – Gold Award

by the Hong Kong Productivity Council



# 20164 ER + 5878 \* 54378



#### Corporate Citizen in China 2016 Outstanding Award

by the Corporate Citizenship Committee of China Association of Social Workers, China Central Television and Tencent Charity Foundation

#### CSR China Education Award 2016

#### CSR Action Award

by Central Committee of the Communist Youth League, backed by the Ministry of Education and the Ministry of Industry and Information Technology



#### 2015/16 Family-Friendly Employers Award Scheme

Special Mention (Gold) Distinguished Family-Friendly Employers

by the Home Affairs Bureau and the Family Council

#### Global 2000

by Forbes

#### The Outstanding Listed Company Award

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

#### Global Chinese Business 1000

by Yazhou Zhoukan

#### 6th China Securities Golden Bauhinia Awards

Most Valuable Listed Company (Towngas China)

by Hong Kong Ta Kung Wen Wei Media Group Limited

### **BUSINESS COVERAGE IN 2016**

Towngas China

Guangdong Province 139. Foshan

195. Dalian Economic

196. Anshan

197. Lvshun

201. Xingiu

202. Jianping

205. Siping 206. Qiqihar

208. Yanshan

209. Cangxian

210. Mengcun

212. Baoding

214. Ziyang

216. Pengxi

217. Lezhi

219. Dayi 220. Yuechi

221. Cangxi

222. Chengdu

224. Jianyang

225. Pengshan

226. Mianyang

227. Xinjin

228. Xindu

229. Mianzhu

230. Jiajiang

231. Qijiang

233. Zhongwei (Fusui)

**Midstream Projects** 

**CNG Refilling Station** 

239. Qiqihar (Xingqixiang)

Huangshan

237. Taian Taigang

238. Qiqihar (Lianfu)

**Other Projects** 

240. Zhuojia Public

Engineering

242. Towngas China

241. Sichuan Distributed

**Energy Systems** 

Energy Investment

232. Guilin

234. Xingyi

235. Luliang

236. Xuancheng

223. Zhongjiang

215. Weiyuan

218. Pingchang

211. Shijiazhuang

Inner Mongolia 213. Baotou

Southwestern China

199. Beipiao 200. Wafangdian

203. Changchun

204. Gongzhuling

Hebei Province

207. Qinhuangdao

198. Kazuo

and Technical

**Development Zone** 

(Stock Code: 1083)

**Piped City-Gas** 

140. Shaoguan

141. Qingyuan

142. Yangdong

Eastern China

145. Dafeng 146. Tongshan

147. Maanshan

148. Bowang

144. Nanjing Gaochun

149. Zhengpugang Xin

Qu Modern

150. Wuhu Fanchang

151. Bozhou-Wuhu

152. Wuhu Jiangbei

Zone

153. Anging

154. Chizhou

157. Huizhou

159. Huzhou

160. Yuhang

156. Huangshan

158. Tongxiang

161. Songyang

162. Changjiu

163. Fuzhou

164. Jiujiang 165. Wuning

166. Xiushui

167. Yifeng

169. Jimo

171. Zibo

174.

184.

170. Laoshan

172. Zibo Lubo

Jinan West

173. Longkou

175. Weifang

176. Weihai

178. Chiping

180. Laiyang 181. Zhaoyuan

182. Pingyin

183. Feicheng

185. Yangxin

Hunan Province

Northeastern China

192. Shenyang Coastal

Economic Zone

194. Dalian Changxingdao

186. Wulian

187. Miluo

188. Benxi

190. Tieling

193. Yingkou

191. Fuxin

189. Chaoyang

Boxing Economic

Development Zone

177. Taian

179. Linqu

168. Changting

Shandong Province

155. Tunxi

Industrial Zone

Modern Industrial

143. Fengxi

Projects

#### Towngas

(Stock Code: 3)

#### **Piped City-Gas** Projects

#### **Guangdong Province**

- Panyu 1.
- 2. Zhongshan
- 3. Dongyong Shenzhen 4.
- 5. Chaoan
- 6.
- Chaozhou Raoping **Central China**

Wuhan 7. 8. Xinmi

#### Eastern China

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

#### **Shandong Province**

29. Jinan East

#### Northern China 30. Jilin

- Beijing Economic-31. technological Development Area
- 32. Hebei Jingxian **Northwestern China**

33. Xi'an

- Hainan Province 34. Qionghai

- **Midstream Projects**
- Guangdong LNG
   Anhui NG
- 37
- Hebei NG Jilin NG 38
- Henan NG 39
- 40 Jintan NG

#### LNG Refilling Station 41. Nanjing (Marine)

- Water Projects 42. Wujiang
- Suzhou 43
- Industrial Park
- 44 Wuhu Suzhou Industrial Park 45.
- (Industrial Wastewater Treatment)
- 46 Maanshan
- 47 Jiangbei

4

Suzhou Industrial Park 48. (food waste processing and utilisation)

**New Energy Projects** Coal Mining 49. Jiangxi Fengcheng 50. Inner Mongolia Erdos 100. Jiangxu Xuzhou

102. Jiangxi Pengze

103. Guangdong

105. Jilin Tianyuan

106. Xuzhou ĆOG

107. Heze COG

Port

109. Zhangjiagang

**Oilfield Project** 

in Thailand

Telecommunication

Shandong Jinan

113. Shandong Jinan Chibo 114. Shandong Laiyang

117. Liaoning Dalian DETA 118. Dalian Yida

115. Xuzhou Fengxian

120. Beijing Zhongjing 121. Beijing Chibo

123. Shenzhen (Qianhai)

124. Shenzhen (Interlink

Connectivity)

125. Shenyang Sanquan

Construction

Supervisory

126. ECO Engineering

128. GH Yixing Ecology 129. Dalian (New Energy

133. Towngas Technology

Technology) 130. M-Tech

131. GH-Fusion

G-Tech

134. S-Tech (Zhuhai)

(Shenzhen)

135. ECO Engineering

Management

Towngas Livestyle

Towngas Payment

Technology (Shenzhen) 138. Hong Kong & China

Gas International

**Energy Trading** 

Management (Xi'an)

Suzhou Industrial Park

Broad Energy Services

**Other Projects** 

127.

132.

136.

137

116. Xuzhou Peixian

110. Tangshan Yutian

111. Phetchabun Province

**Biomass** 

**Projects** 

119. Harbin

122. Dongguan

112.

101. Anhui Maanshan

Guangzhou

Upstream Projects 104. Shanxi LCBM

**Coal Logistic Project** 

Jiaxianggang Logistic

108. Shandong Jining

- Kejian
- **Coal-based Chemical**
- Jiangxi Fengcheng Inner Mongolia Erdos 51
- 52
- **CNG/LNG** Refilling

#### Stations 53

- Shaanxi Xianyang Shaanxi Huitai
- 54
- 55.
- Shaanxi Lueyang Shaanxi Fengxiang Shaanxi Shenmu 56. 57
- 58. Shaanxi Baoji
- 59. Shaanxi Zhouzhi 60.
  - Shaanxi Weinan Gushi
- Shaanxi Weinan 61. Tianshi
- 62
- Shaanxi Hancheng Shanxi Yuanping 63.
- Shanxi Lingshi 64.
- Shanxi Pinglu 65.
- 66.
- Shanxi Xinzhou Shandong Chiping 67.
- Shandong Jining 68.
- 69 Shandong Dongping
- 70. 71. Shandong Jiaxiang Shandong Weishan
- Shandong Shanxian 72.
- 73. Shandong Linqing
- 74. Shandong Heze
- 75 Hebei Shijiazhuang
- 76. Xingtai (Gangxing)
- 77 Xingtai (Xinghua)
- 78 Henan Xinmi
- 79 Henan Anyang 80 Henan Kaifeng
- Henan Linzhou 81.
- 82 Henan Nanyang
- Henan Luoyang 83. Yanshi
- Inner Mongolia 84.
- Huhhot
- 85. Inner Mongolia Wulatezhong Qi
- Inner Mongolia 86
- Xiwuzhumuqin Qi 87. Inner Mongolia Chifeng Inner Mongolia

Chaha'eryouyiqian Qi

Inner Mongolia

Inner Mongolia

Ulangab Huade

Inner Mongolia

Ulanqab Chahar

Bayannur Uradgian Qi

Inner Mongolia

Inner Mongolia

Bayannur Linhe

Inner Mongolia

Bayannur Hanggin

Ningxia Jinyintan

Ningxia Zhongwei

Ningxia Zhongwei

Haixing Development

Ningxia Guangwuxian

Ningxia Qingtongxia

Xilingol

88.

89

90.

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7one

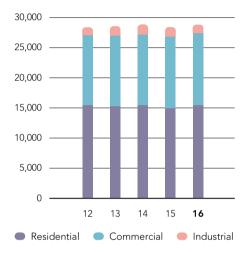


## **BUSINESS HIGHLIGHTS**

	2016	2015	Change %
Operating (Company)			
Number of Customers as at 31st December	1,859,414	1,839,261	+1
Number of Customers per km of Mains	553	552	_
Installed Capacity, thousand m <sup>3</sup> per hour	525	525	_
Peak Hourly Demand, thousand m <sup>3</sup>	538	493	+9
Town Gas Sales, million MJ	28,814	28,404	+1
Number of Employees as at 31st December	2,019	1,999	+1
Number of Customers per Employee	921	920	_
Financial			
Revenue, HK million dollars	28,557	29,591	-3
Profit Attributable to Shareholders, HK million dollars	7,341	7,302	+1
Dividends, HK million dollars	4,451	4,047	+10
Shareholders			
Issued Shares, million of shares	12,717	11,561	+10
Shareholders' Funds, HK million dollars	53,932	52,841	+2
Earnings per Share, HK cents	57.7	57.4*	+1
Dividends per Share, HK cents	35.0	31.8*	+10
Shareholders' Funds, HK dollars per share	4.24	4.16*	+2
Number of Shareholders as at 31st December	13,541	13,256	+2

\* Adjusted for the bonus share issue in 2016

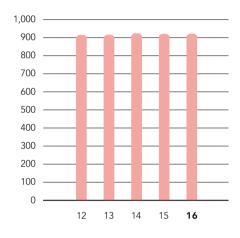
### FIVE-YEAR SUMMARY



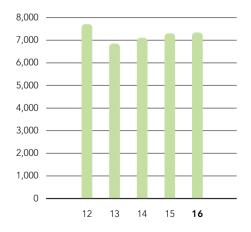
#### Town Gas Sales

Company (million MJ)

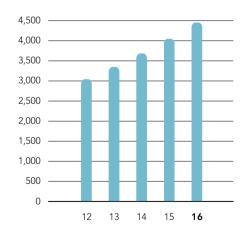
#### Number of Customers per Employee Company



#### Profit Attributable to Shareholders (HK\$ million)



Dividends (HK\$ million)



# Chairman's Statement



The Group's town gas business in Hong Kong maintained stable growth in 2016. Global economic fluctuations, slowdown in economic growth in mainland China, further devaluation of the renminbi and low international oil prices during the year, however, impacted the Group's utility and emerging environmentally-friendly energy businesses on the mainland. Nevertheless, the Group endeavoured to maintain stability in its overall recurrent business results for 2016. Profit after taxation attributable to shareholders of the Group for the year increased by 0.53 per cent to HK\$7,341 million, an increase of HK\$39 million compared to 2015. Earnings per share for the year amounted to HK57.7 cents.

During the year under review, the Group invested HK\$6,257 million in production facilities, pipelines, plants and other fixed assets for the sustainable development of its various existing and new businesses in Hong Kong and mainland China.

#### Town Gas Business in Hong Kong

The local economy grew slower in 2016 compared to 2015 amid a challenging global economy. During the year, tourism was hit by a strong Hong Kong dollar causing a decrease in the total number of inbound visitors for the second consecutive year and thus negatively impacting the food and beverage gas sales market. Conversely, as the average temperature in Hong Kong in 2016 was lower than in 2015, residential gas sales increased. Compared to 2015, total volume of gas sales in Hong Kong for 2016 increased by 1.4 per cent to 28,814 million MJ while appliance sales revenue increased by 24.9 per cent to HK\$1,634 million with a total of 275,361 sets sold, mainly benefiting from newly completed residential projects.

As at the end of 2016, the number of customers was 1,859,414, an increase of 20,153 compared to 2015, slightly up by 1.1 per cent.

#### Business Development in Mainland China

The Group's mainland businesses continued to progress steadily during 2016. Overall, inclusive of projects of the Group's subsidiary, Towngas China Company Limited ("Towngas China"; stock code: 1083.HK), the Group had 241 projects on the mainland, as at the end of 2016, 19 more than at the end of 2015, spread across 26 provinces, autonomous regions and municipalities. These projects encompass upstream, midstream and downstream natural gas sectors, water sectors, efficient energy applications and exploration and utilisation of emerging environmentallyfriendly energy, as well as telecommunications.

The Group's development of emerging environmentally-friendly energy businesses in mainland China, including coalbed methane liquefaction, coal chemicals, conversion and utilisation of biomass, natural gas refilling stations, etc., through its wholly-owned subsidiary ECO Environmental Investments Limited and the latter's subsidiaries (collectively known as "ECO"), is progressing steadily. During 2016, international oil prices continued to fluctuate, falling at one time early in the year, to a 2003 low, leading to a drastic drop in prices of energy products which significantly affected ECO's profits. Nevertheless, ECO's selfdeveloped innovative technologies progressed well in 2016. Gradual commercial application of ECO's new technologies is expected to contribute to long-term business growth of the Group. Additionally, international oil prices have become more stable since the end of 2016, and this will also help the Group's income growth.

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 sizable, nation-wide, multi-business corporation focused on environmentally-friendly energy ventures and utility sectors.

# Utility Businesses in Mainland China

The Group's city-gas businesses are progressing well. As at the end of 2016, inclusive of Towngas China, the Group had a total of 131 city-gas projects in mainland cities spread across 23 provinces, autonomous regions and municipalities. The total volume of gas sales for these projects in 2016 was approximately 17,140 million cubic metres, an increase of 10.3 per cent over 2015. As at the end of 2016, the Group's mainland gas customers stood at approximately 23.1 million, an increase of 11 per cent over 2015. The Group continues to have a good reputation as a large-scale city-gas enterprise with outstanding performance on the mainland.

Due to uncertainties over the policy direction of a number of major global economies resulting in poor growth momentum, demand for commodities worldwide remained weak during 2016, and, as a result, growth in the mainland economy slowed compared to 2015. Exports from mainland China have now declined for two consecutive years. Cutting excessive capacity, destocking and deleveraging have also reduced industrial production. Thus, demand for energy across the country, including electricity, petroleum and natural gas,

recorded only slight growth in 2016. Furthermore, given low international oil prices, prices for other petroleum fuels also declined. Nevertheless, in the medium to long term, as natural gas is still projected to be the clean energy of choice to best reduce air pollution and improve smoggy atmospheric conditions on the mainland, long-term and steady growth in demand is still anticipated. The Chinese government has also formulated a natural gas utilisation policy to strengthen preventative measures to combat air pollution and to minimise the formation of smoq, indicating an energy development trend inclining towards natural gas and environmentally-friendly energy. The competitiveness of natural gas relative to other energy sources was also enhanced following reductions in the mainland's non-residential natural gas city-gate prices at the end of 2015. This favourable momentum will continue to benefit the Group's city-gas and natural gas businesses.

In addition, with gradual commissioning of large-scale national natural gas projects, including transmission pipelines from Sichuan province to eastern and southern China and the West-to-East pipeline, and projects for importing piped natural gas from Central Asia and Myanmar, together with a scheduled supply of piped natural gas from Russia, as well as a rise in the sources of imported liquefied natural gas ("LNG"), supply of natural gas on the mainland is becoming ample, which is beneficial to market development. With a number of mainland cities gradually advocating the use of natural gas to replace coal, natural gas as a fuel for household heating in winter is steadily growing. Thus, with increasing sources of gas supply, expanding pipeline networks, rising living standards and society's aspiration for greater environmental protection, the Group anticipates its mainland city-gas businesses will continue to thrive in future.

Anhui Province Natural Gas Development Co. Ltd., an associated company of the Group, was listed on the Shanghai Stock Exchange on 10th January 2017. As a large-scale integrated operator, its core business is the construction and operation of long-haul natural gas pipelines in Anhui province, alongside a downstream distribution business. Listing will help speed up the company's construction of natural gas pipelines and its development of markets in the province.

Construction of the Group's natural gas storage facility in underground salt caverns in Jintan district, Changzhou city, Jiangsu province, is in progress. Upon completion, this facility will be the first of its kind developed by a city-gas enterprise on the mainland. Total storage capacity will be approximately 460 million standard cubic metres. Completion of phase one of this project, with a storage capacity of 150 million standard cubic metres, is expected during the second quarter of 2017. This facility, which will help the Group supplement and regulate gas supplies during the peak winter period for several of its city-gas projects in eastern China, is in line with the Chinese government's policy of advocating faster development of gas storage capacity, and will support the Group's business development in downstream city-gas markets.

The Group's development of natural gas vehicular refilling stations in mainland China, under the brand name "Towngas", is progressing well with 109 stations now spread across different provinces to date. Apart from this, the Group is also proactively developing refilling projects for marine vessels and is currently investing in a joint venture project, with six refilling sites, for barges along the Yangtze River in Jiangsu province. This is the country's first, and largest project in terms of number of refilling sites, along this river.

In September 2013, the joint venture constructed and put into service the country's first floating LNG refilling station barge. Classified by the government as a pilot project, this venture represents the start of a new era for the mainland's marine industry in LNG applications. Given that LNG is a form of clean energy that is being actively promoted by the Chinese government, vehicular and marine refilling station businesses have good prospects for the Group.

The Group has entered into the mainland water market under the brand name "Hua Yan Water" for over 11 years and currently invests in, and operates, six water projects. These include water supply joint venture projects in Wujiang district, Suzhou city, Jiangsu province and in Wuhu city, Anhui province; whollyowned water supply projects in Zhengpugang Xin Qu, Maanshan city and in Jiangbei Xin Qu, Wuhu city, both in Anhui province; and 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. In addition, given food waste processing and utilisation is also a sizable environmentallyfriendly industry, the Group is

constructing a plant in Suzhou Industrial Park to handle 500 tonnes of food waste, green waste and landfill leachate daily for conversion into natural gas, oil products, solid fuel and fertilizers, under the "Hua Yan Water" brand; commissioning is expected in the third quarter of 2018 and will be the Group's first project converting waste into high-value products.

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

#### Emerging Environmentally-Friendly Energy Businesses

ECO's major businesses in Hong Kong – an aviation fuel facility, dedicated liquefied petroleum gas ("LPG") vehicular refilling stations and landfill gas utilisation projects – all operated smoothly in 2016. With a total turnover of approximately 6.2 million tonnes in 2016, ECO's aviation fuel facility provided a safe and reliable fuel supply to Hong Kong International Airport and contributed to ECO's steady profit growth. ECO's LPG vehicular refilling station business had a steady operation and satisfactory profit in 2016, providing a quality and reliable fuel supply to the territory's taxi and minibus sectors. ECO's landfill gas project in the North East New Territories, after operating for several years, has been generating noticeable environmental benefits. ECO's development of a South East New Territories landfill gas utilisation project is also progressing smoothly, with commissioning expected to start in the first half of 2017. This will then further increase the proportion of landfill gas used by the Group and make an additional contribution to energy conservation and emission reduction in Hong Kong.

With international oil prices creeping low during most of 2016, annual output of ECO's oilfield project in Thailand fell to 1.37 million barrels, causing a significant impact on profit. However, a rebound in international oil prices to a range of approximately USD55 per barrel in late 2016 helps to stabilise the business conditions faced by the project. CHAIRMAN'S STATEMENT

As smog and air pollution on the mainland are now a growing concern, the Chinese government is stepping up its efforts to promote the use of LNG to gradually replace diesel as fuel for heavy-duty trucks. ECO's networks of natural gas refilling stations are gradually taking shape in provinces and autonomous regions including Shaanxi, Inner Mongolia, Ningxia, Shandong, Shanxi, Jiangsu, Henan and Liaoning. All in all, ECO currently has 62 refilling stations in operation, under construction or at the planning stage. As expansion of its networks progresses, the ECO brand name will gradually become more well-known in the market.

Conversion of biomass into clean energy and chemical products is an important part of ECO's business strategy which is in line with the policy direction of mainland China. To this end, the plant now under construction and located in Zhangjiagang city, Jiangsu province can upgrade approximately 220,000 tonnes of palm acid oil, a low-quality inedible bio-oil, into high-value oleic acids and other chemical products each year. Construction is expected to be completed and ready for trial production by the third quarter of 2017. In addition, construction of a project in

Xuzhou city, Jiangsu province to produce LNG by methanation of coke oven gas has been largely completed; trial production is expected to commence in the first half of 2017.

Mainland China, a sizeable agricultural country, generates 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. However, ECO's research and development team has successfully developed a world leading approach on pyrolysis and hydrolysis technologies, which can convert agricultural and forestry waste into high-value syngas and green block chemicals, such as furfural and levulinic acid. To this end, ECO has launched a pilot project in Hebei province with trial production expected to start in the second half of 2017, the success of which would pave the foundation for subsequent commercial implementation.

ECO's coal chemical project in Ordos city, Inner Mongolia Autonomous Region, operated smoothly during 2016 yielding over 310,000 tonnes of methanol. Works to upgrade and optimise the facility to convert methanol into natural gasoline are progressing as planned. Additionally, ECO has launched a new project to convert 40 per cent of the coal-based syngas into 120,000 tonnes of higher-valued ethylene glycol, with trial production targeted to start before the end of 2017. These will lay a solid foundation for ECO to further broaden its businesses on syngas utilisation and methanol upgrading.

In line with its evolving business development strategy, ECO continues to strengthen its capabilities in research and technological development, from the original technological emphasis on fuel substitutes, now extending to encompass higher value-added chemical and new material substitutes. These include the conversion of hightemperature coal tar oil into pitch-based carbon materials, low temperature carbonisation of oil-rich powder coal, and deep-processing of levulinic acid to green fuel additives. A number of breakthroughs have already been achieved, and upon commercial application of technologies which can be proceeded shortly, significant economic and environmental benefits could be derived. All these successes will create a significant competitive edge for ECO's future development.

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

Towngas China, a subsidiary of the Group, recorded good growth in profit after taxation attributable to its shareholders, amounting to HK\$974 million in 2016, an increase of approximately 21 per cent over 2015. As at the end of 2016, the Group held approximately 1,739 million shares in Towngas China, representing approximately 64.12 per cent of Towngas China's total issued shares.

Towngas China added two new distributed energy projects to its portfolio in 2016, one based in Sichuan province, and the other known as Towngas China Energy Investment (Shenzhen) Limited.

Towngas China was honoured with the Grand Award presented by The Hong Kong Management Association ("HKMA") at its 2016 HKMA Quality Awards, in recognition of the company's long-time commitment to quality. The award is highly gratifying as it affirms Towngas China's positive approach to total quality management, enhancement of performance across all its operations, and quality products and services. Towngas China's ongoing efforts to improve its customer services, safety, human resources, social responsibility,

corporate governance and financial performance continue to contribute to the Group's business growth momentum and establishment of a good corporate image.

During 2016, Moody's Investors Service maintained its issuer credit rating on Towngas China as "Baa1" with a "stable" outlook. Standard & Poor's Ratings Services also upheld their "BBB+" long-term corporate credit rating and "cnA+" long-term Greater China regional scale credit rating on Towngas China with a "stable" outlook. These two international rating agencies' ratings demonstrate recognition of Towngas China's stable financial status and reflect the company's increasing credit strength.

#### **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. Taking advantage of low interest rates, medium term notes totalling HK\$1,328 million, with maturity ranging from 10 to 12 years, were issued during 2016. In line with the Group's long-term business investments, as at 31st December 2016, the amount of medium term notes issued had reached HK\$11.9 billion with tenors ranging from 10 to 40 years, with an average fixed interest rate of 3.6 per cent and an average tenor of 15.5 years.

#### Employees and Productivity

As at the end of 2016, the number of employees engaged in the town gas business in Hong Kong was 2,019 (2015 year end: 1,999), the number of customers was 1,859,414, and each employee served the equivalent of 921 customers, a similar level to 2015. 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 2,392 as at the end of 2016 compared to 2,380 as at the end of 2015. Related manpower costs amounted to HK\$1,052 million for 2016. In 2016, there was an approximately 4 per cent average increase in remuneration over 2015. 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.

CHAIRMAN'S STATEMENT

Exclusive of businesses in Hong Kong, the total number of the Group's employees in mainland China and other places outside Hong Kong was 47,000 as at the end of 2016, an increase of approximately 1,400 compared to 2015.

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

#### **Bonus Issue of Shares**

The Directors propose to make a bonus issue of one new share for every ten existing shares held by shareholders whose names are on the Register of Members of the Company as at 15th June 2017. The necessary resolution will be proposed at the forthcoming Annual General Meeting on 7th June 2017, and if passed, share certificates will be posted on 23rd June 2017.

#### **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 2017. Including the interim dividend of HK12 cents per share paid on 3rd October 2016, the total dividend payout for the whole year shall be HK35 cents per share. Barring unforeseen circumstances, the forecast dividends per share for 2017 after bonus share issue shall not be less than the interim and final dividends for 2016.

#### **Business Outlook for 2017**

The Company predicts steady growth in its number of customers in Hong Kong during 2017. With a small upturn in the total number of inbound tourists in early 2017, the retail market has now improved slightly. The Group's gas business in Hong Kong is also benefiting from the efforts of The Government of the Hong Kong Special Administrative Region to increase land and housing supply which should help maintain stable and good growth in the number of gas customers in the next few years. Additionally, town gas competitiveness as an energy resource combining both environmental and economic advantages is helping to develop the commercial and industrial energy market. Due to the impact of international oil prices, gas tariff fuel cost adjustment charges have been reduced which is beneficial to customers and further enhances the competitiveness of town gas, relative to electricity in particular, in the energy market. However, uncertainties in international politics and the world economy have created variables in Hong Kong's economic development

this year. Moreover, increasing local manpower costs and operating expenses are leading to rising costs for businesses in Hong Kong generally. The business environment is full of challenges. The Company will, however, continue to enhance operational efficiency so as to maintain stable development of its gas business in the territory.

Development of export manufacturing industries in mainland China is being negatively affected by uncertainties in both the global economy and the policy direction of a number of major economies. This, combined with other factors including the mainland's slow economic growth momentum, is adversely impacting industrial gas demand. Thus, growth in gas sales of the Group's mainland city-gas businesses is weakening. Coupled with the exchange rate risk arising from renminbi devaluation, overall profit growth of the Group's mainland businesses faces challenges in the near term. Nevertheless, in the long term, the Chinese government's move to improve smoggy atmospheric conditions, thus tightening supervision and administration of related measures and enhancing efforts to reduce carbon emissions and encouraging the use of clean energy, is creating opportunities for natural gas to

replace use of coal in industrial processing, as well as in boilers, power generation, distributed energy, household heating, gas hot water heaters and clothes dryers. Natural gas price adjustments in late 2015 lowered upstream gas prices, thus enhancing competitiveness. Furthermore, increasing upstream gas supply, expanding pipeline networks and rapid urbanisation leading to a continuous rise in demand for utility facilities and energy, are all favourable to the development of the downstream gas market and the healthy and long-term development of the natural gas business sector in general.

In respect of emerging environmentally-friendly energy businesses, following the Chinese government's move towards greater energy diversification, environmental protection and recycling of materials, the Group is continuing to develop and apply new technologies for conserving energy and reducing pollutant emissions. There is also a growing trend for greater use of low-sulfur, high-quality oil, electricity and natural gas as fuels for vehicles and vessels to reduce atmospheric pollution. Though international oil prices have recently rebounded from their lowest point in early 2016, it is necessary to closely monitor potential market volatility, as this will still impact profit growth

and slow down the pace of investment of the Group's emerging environmentally-friendly energy businesses in the short term. ECO is moving towards production of high-quality chemical products which are less sensitive to international oil prices, taking this as a guide for future project investments. As self-developed research and developments gradually achieve results which will be put into commercial production, emerging environmentally-friendly energy businesses will ignite a new light for the Group, illuminating the way for long-term development and business growth strategy.

With the Group's solid foundation in Hong Kong and its diverse business sectors spread across extensive areas on the mainland. together with its successful technical experience and corporate brand names and sales channels built there over 22 years, alongside society's growing concern over air quality, it is anticipated that there will be ever-rising demand for clean energy. According to the Thirteenth Five-Year Plan, the share of natural gas in the country's total energy mix is set to increase from below 6 per cent currently to 10 per cent by year 2020, thus creating huge market potential for clean energy businesses. In addition, given that the number of piped-gas customers in Hong Kong and

mainland China is increasing, the Group, with its sizeable customer base, foresees better benefits from its expanding new businesses.

Despite the challenges resulting from the slowdown in economic growth on the mainland, the Group has formulated, and is gradually implementing, plans in accordance with the country's energy and environmental policies. Overall, with demand for natural gas and environmentallyfriendly and renewable energy increasing alongside society's growing aspiration for more environmental protection, coupled with the Group's drive to promote an innovative mindset to continually add new momentum to its business growth, the Group anticipates development in the years to come will be ever broader and better.

#### LEE Shau Kee

Chairman Hong Kong, 16th March 2017

# Board of Directors



FROM LEFT TO RIGHT

FRONT ROW David Li Kwok Po

BACK ROW Peter Wong Wai Yee Lee Ka Kit Lee Shau Kee Chairman

Alfred Chan Wing Kin Leung Hay Man Poon Chung Kwong

Colin Lam Ko Yin Lee Ka Shing

### BIOGRAPHICAL DETAILS OF DIRECTORS

#### Dr. the Hon. LEE Shau Kee G.B.M., D.B.A. (Hon.), D.S.Sc. (Hon.), LLD. (Hon.), Chairman & Non-executive Director

Aged 88. Dr. Lee was appointed to the Board of Directors of the Company in 1978 and subsequently appointed Chairman in 1983. He has been engaged in property development in Hong Kong for more than 60 years. Dr. Lee is the Chairman and Managing Director of Henderson Land Development Company Limited ("Henderson Land Development") and an Executive Director of Henderson Investment Limited. Dr. Lee is also a Vice Chairman of Sun Hung Kai Properties Limited as well as a Non-executive Director of Hong Kong Ferry (Holdings) Company Limited and Miramar Hotel and Investment Company, Limited. All the above companies are listed public companies. Dr. Lee is also a Director of Henderson **Development Limited** ("Henderson Development"), Hopkins (Cayman) Limited ("Hopkins"), Rimmer (Cayman) Limited ("Rimmer"), Riddick (Cayman) Limited ("Riddick"), Timpani Investments Limited ("Timpani Investments"), Disralei Investment Limited ("Disralei Investment"), Medley Investment Limited ("Medley Investment") and Macrostar Investment Limited ("Macrostar Investment"). Henderson Land Development, Henderson Development, Hopkins, Rimmer, Riddick, Timpani Investments, Disralei Investment, Medley Investment and Macrostar

Investment have discloseable interests in the Company under the provisions of the Securities and Futures Ordinance (please refer to the notes on "Substantial Shareholders and Others" on pages 69 and 70 of this Annual Report for details). Dr. Lee was awarded the Grand Bauhinia Medal by the Government of the Hong Kong Special Administrative Region in 2007. Dr. Lee is the father of Dr. Lee Ka Kit and Mr. Lee Ka Shing, Non-executive Directors of the Company.

#### Mr. LEUNG Hay Man F.R.I.C.S., F.C.I.Arb., F.H.K.I.S., Independent Non-executive Director

Aged 82. Mr. Leung was appointed to the Board of Directors of the Company in 1981. He is an Independent Non-executive Director of Henderson Land **Development Company Limited** ("Henderson Land Development"), Henderson Investment Limited and Hong Kong Ferry (Holdings) Company Limited, all of which are listed public companies. Henderson Land Development has discloseable interests in the Company under the provisions of the Securities and Futures Ordinance (please refer to the notes on "Substantial Shareholders and Others" on pages 69 and 70 of this Annual Report for details). Mr. Leung is a Fellow of the Royal Institute of Chartered Surveyors, Fellow of the Chartered Institute of Arbitrators and Fellow of the Hong Kong Institute of Surveyors.

#### Dr. Colin LAM Ko Yin F.C.I.L.T., F.H.K.I.o.D., D.B. (Hon.), Non-executive Director

Aged 65. Dr. Lam was appointed to the Board of Directors of the Company in 1983. He has more than 43 years' experience in banking and property development. He is the Deputy Chairman of The University of Hong Kong Foundation for Educational Development and Research and a Director of Fudan University Education Development Foundation. Dr. Lam was awarded an Honorary University Fellowship by The University of Hong Kong in 2008, and was conferred a degree of Doctor of Business (Honoris Causa) by Macquarie University in 2015. He is a Fellow of The Chartered Institute of Logistics and Transport in Hong Kong and a Fellow of The Hong Kong Institute of Directors. Dr. Lam is a Vice Chairman of Henderson Land Development Company Limited ("Henderson Land Development") and Henderson Investment Limited, the Chairman of Hong Kong Ferry (Holdings) Company Limited, and an Executive Director of Miramar Hotel and Investment Company, Limited, all of which are listed public companies. Dr. Lam is a Director of Henderson Development Limited ("Henderson Development"), Hopkins (Cayman) Limited ("Hopkins"), Rimmer (Cayman) Limited ("Rimmer"), Riddick (Cayman) Limited ("Riddick"), Disralei Investment Limited ("Disralei Investment"),

Medley Investment Limited ("Medley Investment") and Macrostar Investment Limited ("Macrostar Investment"). Henderson Land Development, Henderson Development, Hopkins, Rimmer, Riddick, Disralei Investment, Medley Investment and Macrostar Investment have discloseable interests in the Company under the provisions of the Securities and Futures Ordinance (please refer to the notes on "Substantial Shareholders and Others" on pages 69 and 70 of this Annual Report for details).

#### Dr. the Hon. Sir David Ll 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, FCIArb, 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 78. Sir David was appointed to the Board of Directors of the Company in 1984. Sir David is the Chairman and Chief Executive of The Bank of East Asia, Limited. He is an Independent Non-executive Director of Guangdong Investment Limited, The Hongkong and Shanghai Hotels, Limited, PCCW Limited, San Miguel Brewery

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

#### Dr. LEE Ka Kit G.B.S., J.P., D.B.A. (Hon.), Non-executive Director

Aged 53. Dr. Lee was appointed to the Board of Directors of the Company in 1990. He was educated in the United Kingdom. He is a Vice Chairman of Henderson Land Development Company Limited ("Henderson Land Development") and Henderson Investment Limited as well as a Non-executive Director of The Bank of East Asia, Limited.

All the above companies are listed public companies. He is also a Vice Chairman of Henderson Development Limited ("Henderson Development"). Henderson Land Development and Henderson Development have discloseable interests in the Company under the provisions of the Securities and Futures Ordinance (please refer to the notes on "Substantial Shareholders and Others" on pages 69 and 70 of this Annual Report for details). Dr. Lee is a Member of the Standing Committee of the 12th National Committee of the Chinese People's Political Consultative Conference. He has been appointed as a Council Member of the Hong Kong Trade Development Council for two years from 1st January 2016. He was appointed as a Justice of the Peace by the Government of the Hong Kong Special Administrative Region (the "HKSAR") in 2009, and was awarded the Gold Bauhinia Star by the Government of the HKSAR in 2015. Dr. Lee was awarded an Honorary University Fellowship by The University of Hong Kong in 2009, and was also awarded an Honorary Degree of Doctor of Business Administration by Edinburgh Napier University in 2014. He is the son of Dr. Lee Shau Kee, the Chairman of the Company and the brother of Mr. Lee Ka Shing, a Non-executive Director of the Company.

#### Mr. LEE Ka Shing Non-executive Director

Aged 45. Mr. Lee was appointed to the Board of Directors of the Company in 1999. He was educated in Canada. He is a Vice Chairman of Henderson Land **Development Company Limited** ("Henderson Land Development"), the Chairman and Managing Director of Henderson Investment Limited and the Chairman and Chief Executive Officer of Miramar Hotel and Investment Company. Limited, all of which are listed public companies. Mr. Lee is also a Vice Chairman of Henderson Development Limited ("Henderson Development") and a Director of 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, Disralei Investment, Medley Investment, Faxson Investment, Chelco Investment and Macrostar Investment have discloseable interests in the Company under the provisions of the Securities and Futures Ordinance (please refer to the notes on "Substantial Shareholders and Others" on pages 69 and 70 of this Annual Report for details). Mr. Lee is a

Member of The Court of The Hong Kong Polytechnic University. He is also a Member of the 12th Beijing Committee, and was previously a Member of the 10th Guangxi Zhuangzu Zizhiqu Committee and of the 10th Foshan Committee, of the Chinese People's Political Consultative Conference. Mr. Lee is the son of Dr. Lee Shau Kee, the Chairman of the Company and the brother of Dr. Lee Ka Kit, a Nonexecutive Director of the Company.

#### Professor POON Chung Kwong G.B.S., J.P., Ph.D., D.Sc., Independent Non-executive Director

Aged 77. Professor Poon was appointed to the Board of Directors of the Company in 2009. Professor Poon is currently the Chairman of Virya Foundation Limited (a registered non-profit charitable organisation). Professor 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. Professor 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"), Chevalier International Holdings Limited and Hopewell Highway Infrastructure Limited. He was previously an Independent Non-executive Director of K. Wah International Holdings Limited. All the above companies are listed public companies. Henderson Land Development has discloseable interests in the Company under the provisions of the Securities and Futures Ordinance (please refer to the notes on "Substantial Shareholders and Others" on pages 69 and 70 of this Annual Report for details). Professor Poon was appointed as a non-official 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). Professor 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.

#### 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 66. 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 Group. He is also the Chairman and President of Hong Kong & China Gas Investment Limited, the Group's investment holding company in mainland China and chairman, vice chairman or a director of a number of the Group's project companies in mainland China. Mr. Chan is the Chairman of Towngas China Company Limited and the Vice Chairman of Shenzhen Gas Corporation Ltd., both 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. 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, and was named consecutively as one of "The 100 Best-Performing CEOs in the World" by Harvard Business Review in 2015 and 2016. 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., A.C.I.S., A.C.S.,

#### C.P.A. (CANADA), C.M.A., 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 65. 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., both of which are listed public companies. Mr. Wong was named consecutively as one of "The Best CEO of Chinese Listed Companies" by Forbes in 2012 and 2013. He is a chartered professional accountant of Canada and a chartered company secretary both in Hong Kong and the United Kingdom. Mr. Wong is a Fellow of the Institution of Gas Engineers & Managers of the United Kingdom. He completed the Advanced Management Program from Harvard Business School in the United States. Mr. Wong was formerly a director of the Certified Management Accountants Society of British Columbia, Canada and the president of its Hong Kong branch. He is a member of the Advisory Board of the Department of Accounting of Hong Kong Shue Yan University and a member of the Advisory Committee of the College of Professional and Continuing Education, The Hong Kong Polytechnic University. Mr. Wong has over 40 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

"The gas clothes dryer makes a big difference to my family that our laundry is always fresh and dry, no matter the weather."

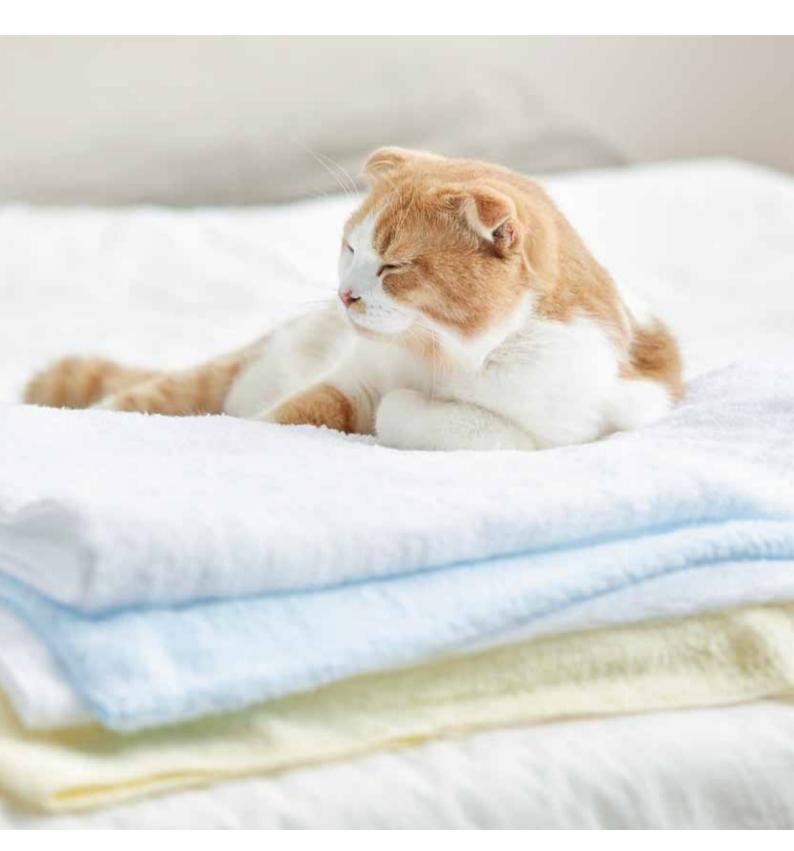
#### MAINLAND UTILITY BUSINESSES

# elevating standards.

The Group's mainland operations recorded doubledigit growth in unit gas sales, heralding a new era in tackling air quality issues

Towngas China was honoured with the 2016 HKMA Quality Award Grand Award, which was given for the first time in respect of operations outside of Hong Kong The mainland's first-ever residential gas clothes dryer launched, selling 10,000 units and each boosting household gas consumption by 30 per cent

Hua Yan Water established a state-of-the-art bio-waste treatment facility that extracts methane for integration into Towngas China's pipelines



### MAINLAND UTILITY BUSINESSES

With the evolving socioeconomic landscape in mainland China, we are witnessing opportunities not only to expand our operations, but to establish environmentally sound directives in the industrial, commercial and residential sectors. Towngas will strive for continuous improvement in products and services, providing a quality living environment for our customers and the society.

A direct fired absorption chiller/heater and boiler powered by natural gas is installed in the Oceanic Museum in Weihai, Shandong province, to provide cooling and heating, as well as temperature modulated hot water.



#### **Our City-gas Operations**

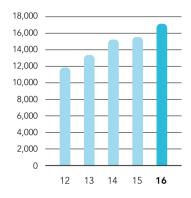
The year 2016 saw a substantial push to consolidate and strengthen the Group's 131 city-gas ventures across 23 provinces, autonomous regions and municipalities in mainland China, which together serve over 23 million residential, commercial and industrial customers. Challenges of a weak global economy notwithstanding, we recorded a 10.3 per cent volume growth in total gas sales, accounting for 8.3 per cent of the national city-gas market.

National demand for natural gas saw a mild recovery in 2016, though the consecutive decline of China's GDP growth over recent years and the weakening of its exports have affected our industrial gas sales. Low international oil prices depressed the cost of other petroleum fuels, leading some customers in the first half of the year to abandon piped city-gas in favour of cheaper alternatives. Fortunately, we were able to implement more competitive pricing in 2016 by virtue of a city-gate price reduction in non-residential

natural gas, which was introduced in a timely fashion by the National Development and Reform Commission at the end of 2015. With an extra boost from a significant marketing push, we succeeded in regaining customers lost earlier in the year.

Despite the challenges of a stagnant economy throughout the majority of the year, our long-term prospects paint a positive picture. In an effort to alleviate pollution and improve air quality, the mainland government's 13th Five Year Plan established carbon

#### China Joint Ventures Gas Sales (million m<sup>3</sup>)



intensity reduction targets of 40 to 45 per cent from 2005 levels by 2020, with a 60 per cent ceiling by 2030. With government policies stimulating the adoption of natural gas and giving structure to China's growing natural gas market, we anticipate a growth in gas sales in the coming years, particularly in the industrial sector. Severe pollution is also accelerating restrictions on coal and oil-fired burners, driving industrial operators to cleaner fuels like natural gas, which currently comprises 6 per cent of the national energy mix. National adoption targets were set at 10 per cent by 2020 and 15 per cent by 2030, leaving a substantial gap to be filled. This will have a profound effect on our portfolio of businesses for the next five years.

To begin weaning from the reliance on coal-fired power, the mainland government is endorsing Distributed Energy Centres, which are gas-fired power generators coupled with cooling and heating systems that supply a localised district. The reduction of natural gas city-gate prices at the end of 2015 has made this a viable business, spurring the formation within the Group of two companies to grasp this potential market. Such projects offer several advantages; not only do they represent good long-term investments, they will boost city-gas sales significantly, promote sustainability via enhanced energy efficiency and offer the

potential for the business of thermal energy and electricity.

Already experiencing the benefits of China's expanding gas infrastructure, our commercial city-gas projects recorded a 12.1 per cent volume growth in 2016. With our piped-gas networks becoming more accessible to the market, restaurants and other commercial businesses are switching from bottled liquefied petroleum gas to piped gas as it is a safer and more convenient alternative.

The growth of the nation's middle class and the rise of urbanisation present much promise for our city-gas projects. Under the mainland government's 13th Five Year Plan, urbanisation is targeted to reach 60 per cent by 2020 and 70 per cent by 2030, giving rise to a more prosperous middle class. This will herald improved standards of living and increased gas consumption as public amenities proliferate, and household applications expand from cooking and water-heating to more modern applications like gas space heating and clothes drying, particularly in the regions along the Yangtze River.

A brewery in Jinan, Shandong province, utilises steam generated by natural gas boilers not only in the process of barley fermentation, but also to clean and sanitise beer bottles.



MAINLAND UTILITY BUSINESSES

Our gas-fired home-based space heating boilers are a particularly effective driver of gas sales during winter, generating a tenfold increase in gas consumption over the year's average cooking and water heating usage.

#### **Midstream Facilities**

With operations stabilising over the year in spite of the sluggish economy, business proceeded smoothly for our midstream natural gas operations in 2016. We currently operate a total of eight midstream projects, including our Taigang Gas midstream long-haul pipeline project in Taian, Shandong province, the Xuancheng-Huangshan natural gas substream and downstream city-gas projects in Anhui province, natural gas pipeline projects in Anhui and Hebei provinces, natural gas extension projects in Jilin and

Henan provinces, a Guangdong Liquefied Natural Gas Receiving Terminal as well as a natural gas storage project under construction in Jiangsu province, which together support the growing natural gas market in mainland China.

To meet a growing demand for natural gas in response to the mainland government's targeted green energy policies, we are now constructing a natural gas storage facility in underground salt caverns in Jintan, Jiangsu province, with a total storage capacity of 460 million standard cubic metres. Phase one of the project, capable of storing 150 million standard cubic metres, is expected to be completed in the second quarter of 2017. The facility will facilitate the more efficient management of our gas inventory and reduce supply bottlenecks during high-demand periods, such as the winter months.

China's gas consumption in 2016 reached 206 billion cubic metres, and is forecast to double by 2030. Considering the nation's robust foreign and indigenous natural gas supply, as well as growing demand from the shifting national energy mix, we foresee considerable opportunities to expand our midstream frameworks as China strives to meet its clean energy targets in the coming years.

#### Water Supply and Wastewater Operations

Spearheaded by Hong Kong & China Water Limited (Hua Yan Water), our burgeoning business encompasses six water projects, serving a total of 1.19 million customers across the two provinces of Jiangsu and Anhui. Buffered from the effects of a weak economic climate, our water projects enjoyed stable sales in 2016, recording a 3 per cent rise in revenue in 2016 with a sales volume of 455 million tonnes. Business expanded in 2016 to the maintenance of water supply systems within buildings, providing a further boost to the year's revenue.

Our underground natural gas storage facility in Jintan, Jiangsu province, will facilitate the management of our gas inventory in East China during high-demand periods.



To meet the substantial market demand for more sanitary and quicker means of drying clothes, Bauhinia launched the first-ever residential gas clothes dryer on the mainland.

Our modern treatment plants cover the production and distribution of drinking water as well as the treatment of wastewater. These include water supply joint venture projects located in Wujiang of Suzhou, and Wuhu; wholly-owned water supply projects in Zhengpugang Xin Qu, Maanshan and Jiangbei Xin Qu, Wuhu; and an integrated water supply and wastewater treatment joint venture project in Suzhou Industrial Park (the Park), together with an integrated wastewater treatment joint venture project, catering to an internationallybased company's TV screen production plant in the Park.

Essentially an environmental endeavour, these treatment facilities purify wastewater to required standards before discharging it back into the public sewage system, alleviating local pollution levels. Following the success of its integrated project at the Park, Hua Yan Water acquired a government-led project to establish a waste treatment plant, which will be capable of processing 500 tonnes of food waste, green waste and landfill leachate per day for conversion into natural gas, oil products, solid fuel and fertilizers. The project is expected to be commissioned in the third quarter of 2018.

The facility's advanced bio-waste treatment processes extract useful matter such as methane gas, which is fed to our neighbouring city-gas supply system, while wastewater is directed to our nearby treatment plant, establishing a crucial synergy between the Group's facilities within the Park. The bio-waste is in fact completely broken down into useful components that can be sold to nearby businesses for additional revenue, forming a new milestone in our journey of transforming waste into reusable matter. Considering the prolific demand for bio-waste treatment and the government's keenness to pursue this fledgling endeavour, such an arrangement forms a model blueprint that can be implemented in other cities across the mainland.

#### Extended Service Businesses

Supporting contemporary living for over 23 million customers, we offer innovative products and services that include home appliances, kitchen furnishings, household goods and our jointly offered gas insurance policies. Our success this year was bolstered by a conscious shift in our promotional strategy, putting greater focus on the merits of gas appliances for contemporary comfort and convenience.



Through our online services platform, customers in mainland China can access our premium services anywhere, at any time.

The featured product of 2016 was the mainland's first-ever residential gas clothes dryer, which debuted under the Bauhinia brand in selected cities. Having been available in Hong Kong for over 20 years, these energyefficient appliances dry quicker, are gentler on fabric, are more economical to use than electric dryers and are more sanitary than outdoor clotheslines. Post-launch sales were at the 10,000-unit level, each boosting household gas usage by 30 per cent. The utilisation of gas for clothes drying will be extended to the commercial laundry sector, broadening our gas sales opportunities.

Bauhinia's home appliances, including cooking appliances and water heaters, continued to appeal to the mainland market, selling over 750,000 units in 2016 and accumulating sales of about 4.5 million units in total since the 2005 launch of the brand. Appreciated by customers for the high-quality construction and reliability of its products, the Bauhinia brand was the recipient of numerous awards in 2016, including Hong Kong Top Brand, Typical Outstanding



Enterprises of National Quality and Integrity and the Gold Tripod Award of the Chinese Top Chef Star Avenue Cup.

Another successful endeavour making its way from Hong Kong was our Total Kitchen Solution. Introduced in 13 mainland cities in 2016, it packages premium kitchen appliances together with our flagship Mia Cucina kitchen cabinetry and other household merchandise. These enjoyed a warm reception among project developers, with a total of 1,700 units sold post launch, and will be introduced gradually to other markets across the mainland in the years to come.

Channelling this momentum, we will be introducing our range of consumer appliances, including white goods under the Mia Cucina name in both Hong Kong and mainland China in early 2017, bringing our popular kitchen solutions under one unified brand. In light of the progress made in 2016, we anticipate a positive response for the expanded Mia Cucina brand.

Partnering with Ping An Property and Casualty Insurance Company of China, Ltd, and Huatai Property Insurance Company Ltd, we began offering household gas insurance protection in 2015. Providing an accident cover for a low premium, these could be purchased online or through our customer centres. Our insurance plan gained favourable traction in 2016, achieving total sales of over RMB89 million across 43 of our city-gas projects. As part of our diversified business model, we are actively exploring other possible protection lines to offer in the coming years.

#### Serving Our Customers

To extend brand favourability and awareness in 2016, we sought to strengthen ties with our customer base, continuing to forge a relationship of trust based on our established reliability, safety focus and customer-centric culture.

Our customer service network expanded to 244 customer centres across 82 mainland cities in 2016, offering customers a comprehensive destination addressing gas usage and household appliance needs.

Our rigorous service ethic extended to the digital sphere when we brought our business online in March 2016, prompted by the unrivalled opportunities of mainland China's Internet Plus movement. Our new online customer centre and the Towngas Lifestyle WeChat service account offer integrated lifestyle service platforms which enable customers to shop for our household goods and healthy food products online, in addition to settling gas bills and making installation or maintenance reservations and other service requests.

Our digital customer service channels will give customers access to different services anywhere, at any time. We will also be transitioning our platform to a membership model, making every customer a member of our club with exclusive privileges such as discounts on household goods, healthy food and medical consultations, as well as other third-party services.

#### **Enhancing Safety**

A key differentiator that sets us apart as one of the most trusted gas companies on the mainland is our attractive safety record. As a result of group-wide endeavours to weave a safety focus into our corporate DNA, major gas-related accidents and casualties have remained at a low level even as our customer numbers have gone up. Customers choose city-gas instead of other fuels mainly because they trust the safety of our gas networks, the reliability of the systems and equipment we supply and the rigorous training undergone by our maintenance and regular inspection teams. During the year, we offered comprehensive safety training to employees across our mainland utility operations with a total of over 850,000 hours.

At the corporate level, we continued to promote Total Quality Management (TQM) as a means of holistic quality and risk management, rolling out initiatives that encompassed every organisational level. Taking a proactive approach to ensuring the continued integrity of our gas equipment and infrastructure, senior management maintained their ongoing safety visits to worksites and customer premises, and convened regularly for the evaluation of current safety issues and corporate risks. Reputational risks were also brought to the table in 2016 as part of our comprehensive risk management directive. Corporate safety manuals from February 2015 were also updated in December 2016 in light of a shift in local regulations and company requirements, placing greater emphasis on environmental standards.



Towngas China was honoured with the 2016 HKMA Quality Award Grand Award presented by The Hong Kong Management Association for its excellent standards of management. MAINLAND UTILITY BUSINESSES

#### **2016** Utility Businesses in Mainland China

Towngas Piped City-Gas Projects	Year of Establishment	Project Investment Rmb M	Registered Capital Rmb M	Equity Share %	
GUANGDONG PROVINCE					
Panyu	1994	260	105	80%	
Zhongshan	1995	240	96	70%	
Dongyong	1998	178	75	82.6%	
Shenzhen	2004		2,212	26.5%	
Chaoan	2007	185	99	90%	
Chaozhou Raoping	2011	189	106	60%	
CENTRAL CHINA					
Wuhan	2003	1,000	420	49%	
Xinmi	2009	205	85	100%	
EASTERN CHINA					
Yixing	2001	246	124	80%	
Taizhou	2002	200	83	65%	
Zhangjiagang	2003	200	100	50%	
Wujiang	2003	150	60	80%	
Xuzhou	2004	245	125	80%	
Suining	2009	155	67	100%	
Fengxian	2009	60	31	100%	
Peixian	2015	300	100	100%	
Danyang	2004	150	60	80%	
Jintan	2006	150	60	60%	
Tongling	2006	240	100	70%	
Suzhou Industrial Park	2001	600	200	55%	
Changzhou	2003	248	166	50%	
Nanjing	2003	1,200	700	49%	
Fengcheng	2007	206	88	55%	
Pingxiang	2009	297	105	100%	
Jiangxi	2009	52	26	56%	
Zhangshu	2009	86	34	100%	
Yonganzhou	2010	100	68	93.9%	
Hangzhou	2013	2,988	1,195	24%	
SHANDONG PROVINCE					
Jinan East	2003	610	470	49%	
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%	

			Project	Registered	Equity	
		Year of Establishment	Investment Rmb M	Capital Rmb M	Share %	
<b>Midstream Projects</b>	1					
Guangdong LNG		2004	8,595	2,578	3%	
Anhui NG		2005	<u> </u>	252	27.5%	
Hebei NG		2005	2,760	920	43%	
Jilin NG		2007	360	220	49%	
Henan NG		2012	125	50	49%	
Jintan NG		2013	180	100	64%	
LNG Refilling Statio	on					
Nanjing (Marine)		2014	600	217	37.6%	
Water/Waste Treat	ment Projects					
Wujiang		2005	2,450	860	80%	
Suzhou Industrial Park		2005	4,705	1,597	50%	
Vuhu		2005	1,000	400	75%	
Suzhou Industrial Park (Industr	ial Wastowator Troatmon		550	185	49%	
Maanshan		2013	157	63	100%	
		2013				
liangbei		2013	1,049	374	100%	
Suzhou Industrial Park (food waste processing and	(attraction)	2016	220	75	55%	
Towngas China Pir	oed City-Gas Pro	jects				
GUANGDONG	Tongxiang	Laiyang	Anshan		SOUTHWESTER	RN
PROVINCE	Huzhou	Zhaoyuan	Lvshun		CHINA	
Foshan	Yuhang	Pingyin	Kazuo		Ziyang	
Shaoguan	Songyang	Feicheng			Weiyuan	
Qingyuan	Changjiu	Boxing Economic	Wafango	dian	Pengxi	
langdong	Fuzhou	Development Zone	Xinqiu		Lezhi	
Fengxi	Jiujiang	Yangxin	Jianping	I	Pingchang	
	Wuning	Wulian	Changer	nun	Dayi	
EASTERN CHINA	Xiushui		Gongzhi	uling	Yuechi	
Nanjing Gaochun	Yifeng	HUNAN PROVINCE	Siping		Cangxi	
Dafeng	Changting	Miluo	Qiqihar		Chengdu	
Tongshan		NORTHEASTERN	LIEDEL		Zhongjiang	
Maanshan	SHANDONG	CHINA	HEBEI	ICE	Jianyang	
Bowang Zhongpugang Xin Qu	PROVINCE Jimo	Benxi	PROVIN		Pengshan	
Zhengpugang Xin Qu Modern Industrial Zone	Laoshan	Chaoyang	Qinhuan Yanshan		Mianyang	
Nuhu Fanchang	Zibo	Tieling	Cangxia		Xinjin	
Bozhou-Wuhu Modern	Zibo Lubo	Fuxin	Mengcu		Xindu	
Industrial Zone	Longkou	Shenyang Coastal	Shijiazhu		Mianzhu	
Wuhu Jiangbei	Jinan West	Economic Zone	Baoding		Jiajiang	
Anging	Weifang	Yingkou	Duoung		Qijiang Guilin	
Chizhou	Weihai	Dalian Changxingdao	INNER		Zhonawei (Fusui)	

Industrial Zone Wuhu Jiangbei Anqing Chizhou Tunxi Huangshan Huizhou

Longkou Jinan West Weifang Weihai Taian Chiping

Linqu

Shenyang Coastal Economic Zone Yingkou Dalian Changxingdao Dalian Economic and Technical Development Zone

MONGOLIA Baotou

# Luliang

Zhongwei (Fusui) Xingyi

#### **Midstream Projects**

Xuancheng Huangshan Taian Taigang

#### **CNG Refilling Stations**

Qiqihar (Lianfu) Qiqihar (Xingqixiang)

#### **Other Projects**

Zhuojia Public Engineering Sichuan Distributed Energy Systems Towngas China Energy Investment



"With our new kitchen, I love making delicious healthy food for my family every day."



HONG KONG GAS BUSINESS

# heartfelt warmth.

The first commercialised project utilising landfill gas to fuel the combined heat and power system in Hong Kong was commissioned at a hospital in Tai Po

Gas appliance sales increased by 7.7 per cent, contributing to profits as well as enhancing regular maintenance operations by provision of high-quality products Our Total Kitchen Solution, under the Mia Cucina brand name, enjoyed a growth in sales to 4,186 units in 2016, bringing our market share in the private development projects sector to 30 per cent

### HONG KONG GAS BUSINESS

Towngas has been serving the people of Hong Kong since the 1800s. We have constantly sought fresh ideas to enhance modern living and enable the growth of our business. By embracing creative thinking and delivering practical solutions, we have benefited our communities and ensured our sustainable development.



Towngas Managing Director Alfred Chan (right) explains the combined heat and power (CHP) system to Secretary for the Environment Wong Kam Sing (left) at the launching ceremony of the CHP system at Alice Ho Miu Ling Nethersole Hospital.

#### Residential and Commercial Activities

The dampening effects of modest economic growth and a drop in overnight tourists were offset by a surge in gas consumption driven by low temperatures early in the year. Total gas sales of Hong Kong of 28,814 TJ were recorded in 2016, representing a growth of 1.4 per cent over the preceding year. Our customer base likewise maintained its stable growth by increasing 20,153 accounts to a total of 1,859,414 as at the end of the year.

Residential gas consumption rose 3.3 per cent over 2015 levels, due in part to the lower average temperatures recorded. Promising developments in the commercial sector also contributed significantly to our gas sales, including the expansions of the Cape Collinson Crematorium and a local theme park, as well as the fuel conversion of Pok Oi Hospital from diesel to gas.

New gas applications continued to take hold among our environmentally conscious customers, driven by our targeted marketing strategies. Both theme parks in Hong Kong now have our gas-fired absorption chiller plants and dehumidifiers installed in place of their electric counterparts. With more installations of gas-fired facilities in progress as the two parks move forward with their own expansion plans, we expect our commercial gas sales to continue on an upward trajectory in the coming years.

We are also intensifying the integration of landfill gas into Hong Kong's energy mix, harnessing it from local landfill sites and treating it for use as recycled fuel to extend local gas utilisation opportunities.

At the Alice Ho Miu Ling Nethersole Hospital in Tai Po, we installed Hong Kong's first combined heat and power system driven by treated landfill gas, reducing the hospital's reliance on electricity to reduce carbon

emissions. Its thermal by-products can be harnessed to generate steam for the hospital's daily use, enhancing the energy efficiency of the system to 85 per cent. Recognising the benefits of these systems for other energy-intensive operators, we actively canvassed potential users in the Tseung Kwan O area as the landfill gas treatment facility in the South East New Territories (SENT) approached commission. Our landfill gas treatment projects can provide businesses in the vicinity with a renewable energy option.

Catering to Hong Kong's evolving culinary tastes, we established stable growth this year in the restaurant trade through a range of new commercial western cooking appliances, programmable roasters as well as noodlecookers. For local restaurants, we introduced high-efficiency stockpots featuring technology that not only shortens boiling time by half compared to traditional stockpots, but also reduces heat and noise significantly for a better kitchen environment. Several large catering groups – including the popular Hong Kong Maxim's Group and Tsui Wah Group – have commissioned them for their restaurant chains. We also equipped local Korean barbeque chains with a series of new Korean-style gas grillers in light of the growing popularity of this cuisine among local diners.

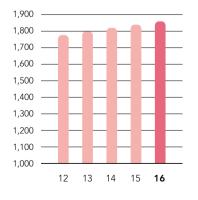
Aside from our reputation as a safe and reliable provider of clean fuel, we continue to be a household name in high-quality consumer appliances and stellar after-sales services. Despite the weak economy, 275,361 sets of appliances were sold in 2016 with a 24.9 per cent increase in sales revenue, driven chiefly by the remarkable performance in the large property development projects.

Particularly well received among property developers was our Total Kitchen Solution, which combines our TGC appliances with our popular Mia Cucina kitchen cabinets and other branded products in a one-stop solution for retail consumers and commercial developers. Unit sales rose to 4,186 in 2016, bringing our market share in the private development projects sector to 30 per cent. We expect this momentum to continue with the launch in early 2017 of our unified Mia Cucina kitchen series in tandem with the mainland market, offering one brand name that encompasses appliances and cabinetry.



Exuding style and elegance, TGC's rose gold temperaturemodulated gas water heater is perfect for customers seeking a touch of class.

Number of Customers Company (Thousand)



#### HONG KONG GAS BUSINESS



The Towngas Cooking Centre offers quality courses for culinary enthusiasts to master sophisticated techniques so they can prepare delicious cuisines and embrace the joy of cooking.

Additions to our line-up that will be introduced under the new Mia Cucina appliance brand include gas ovens, our new highly rated 8kW gas hob (the highest rated residential hob available in Hong Kong), range hoods and built-in refrigerators, amongst others. In recognition of their exceptional quality, our Mia Cucina projects were accredited by the Hong Kong Professional Building Inspection Academy in 2016, enhancing their competitiveness in the residential market.

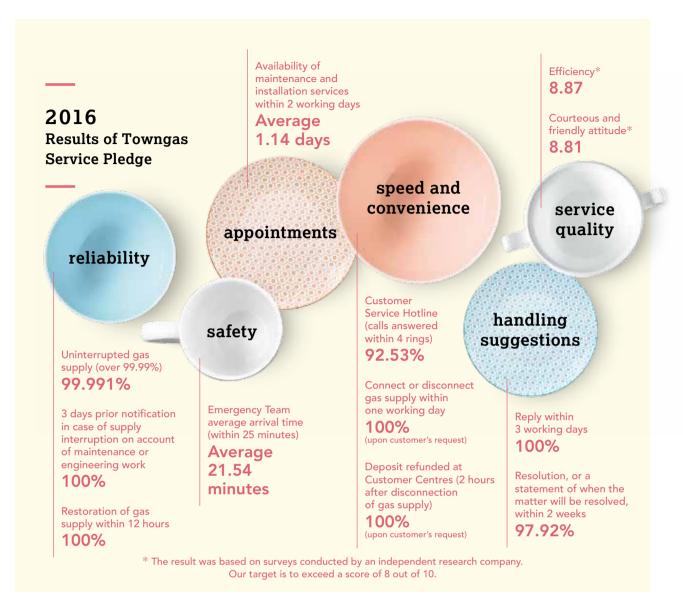
Our robust performance in the face of a weak economy is attributable to more than mere marketing acumen. In addition to our promotions in home décor publications and websites, Mia Cucina continued to gain traction on the strength of our multifaceted customer engagement efforts. We also launched the international Reinventing Home Kitchen – Design Contest 2016, which drew in over 100 submissions created by design professionals and culinary talent alike from 17 different countries. Winning entries will come to fruition through the Mia Cucina brand, providing us creative ideas of reinventing kitchen design.

To drive gas sales, we continued to promote flame cooking, particularly among a younger segment of consumers. Taking our message to social media, we produced a series of popular cooking videos featuring celebrity chefs who discussed the benefits of flame cooking, along with other light-hearted cooking segments that were launched online, rekindling the joy of healthy home cooking. Video interviews were also conducted with restaurant gurus and trade leaders from the food industry for the commercial sector, highlighting the

superiority of flame cooking with Towngas.

Another focus of our promotional efforts was our gas dryer. Highlighting advantages like speed, fabric-friendliness and environmental benefits, our promotions extended across a range of promotional channels, including social media, where we launched a photo contest and referral programme. Dryer sales rose by 14.4 per cent as a result, attesting to the enduring appeal of our unique dryers.

In a nostalgic nod to our roots in the 19th century, our gas lamps continued to radiate throughout the streets of Hong Kong. Together with new installations in Wan Chai and Repulse Bay this year, over 40 gas lamps are located throughout the city, evoking the romance of an earlier era for the enjoyment of a new generation.



#### A Commitment to Customer Service

We are a utility company offering services that directly impact everyday life. Customer satisfaction has been a key driver of our business and we were honoured to receive over 6,400 complimentary letters throughout the year as a testimony to our quality services and products.

The backbone of our customer service structure is formed by our technical teams. Customer service achieved new levels of efficiency this year with the expansion of our mobility solution to our maintenance teams. Our technicians are equipped with mobile devices to provide instant quotations, eliminating the need for paperwork. Information like appliance instructions, safety videos and product promotions could also be called up instantaneously to keep customers informed on ways to keep appliances running safely. Already in use by our Regular Safety Inspection Teams, Emergency Teams and Installation Teams, this system helps us save over 2 million pieces of paper per year. In 2017, we plan to introduce a number of internet channels aimed at communicating with our new generation of customers.

In recognition of our dedication to service excellence, we also received the Sing Tao Service Awards – After Sales Service for the eighth consecutive year and East Week's Hong Kong Service Awards – Public Utilities for the sixth year running.

#### **Gas Infrastructure**

Keeping pace with new housing and commercial developments that are currently underway, our piped-gas network and infrastructure in Hong Kong continued to expand in 2016, supporting the growth of our gas business and enhancing supply reliability. New residential developments in Kai Tak, Sha Tin and Kwun Tong were connected to our gas mains this year, as were several large laundering facilities and Phase II of a theme park currently under development.

With areas of the North East New Territories and Shenzhen River Loop coming into focus under the government's comprehensive development plans, we are preparing for a substantial expansion of our piped-gas network to cope with the anticipated surge in gas demand. Network design is currently in progress for development areas in Fanling North, Kwu Tung North, Hung Shui Kiu and Tung Chung East, while in Lantau, over 15 km of pipeline are being planned for

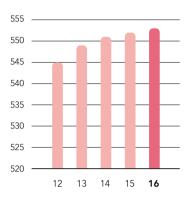
We introduced remotecontrolled mini excavators to accelerate the schedule of our roadworks, while protecting the health of our employees.

the third runway project and the new commercial development in Chek Lap Kok. The new pipelines will be laid in conjunction with the government's road infrastructure.

Progress continues in the laying of a 9 km stretch of looped intermediate-pressure pipeline along Castle Peak Road, as well as the modification of our adjoining stations in Tai Lam and Tuen Mun North. This will enhance the stability of the gas supply to the North West New Territories once complete. The replacement of our medium-pressure ductile iron pipes for gas supply enhancement is also progressing, and is now in its final stages.

Our piped gas network has a reputation for reliability and a low seepage rate, which we achieve through diligent monitoring and the proactive maintenance of our infrastructure. In 2016, on a 10-year cycle, we carried out in-line assessments of our high-pressure pipelines using

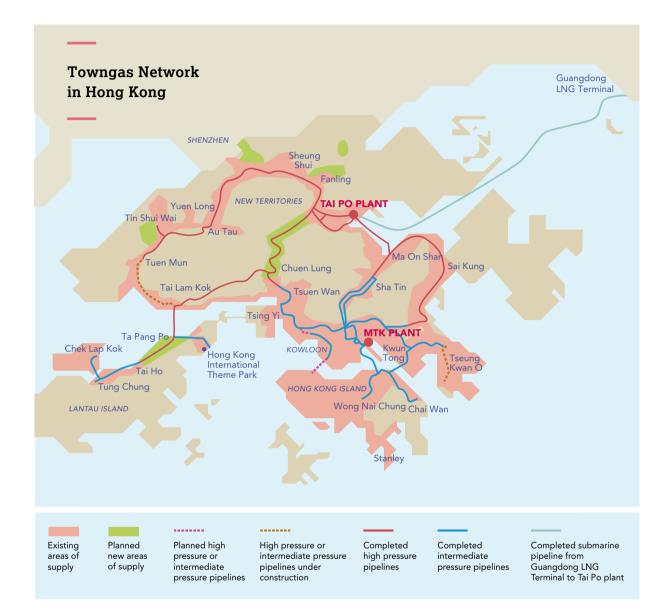
#### Number of Customers per km of Mains Company



intelligent pipeline inspection gauges, enabling us to ensure the continued integrity of our pipeline system.

Our innovations also extend towards enhancing safety and efficiency in gas supply system maintenance and repair works. The Smart Jacket is a PVC sleeve we developed to enclose targeted riser sections to halt corrosion, reducing the need to replace pipes that are otherwise uncompromised. Automation via the application of robotics this





year saw our roadwork benefit from the introduction of our Little Swan, which is a fleet of mini excavators that can be controlled remotely and manoeuvred easily even in tight spaces, reducing our reliance on cumbersome equipment. Our rapid rock drilling and splitting machine likewise reduces the need for traditional manual rock splitting. Capable of drilling and splitting hard rock 20 times more quickly, it allows for a substantial reduction in manual labour.

We make effective use of technology to conduct remote monitoring of our pipe system. Our computerised pipe replacement automated point system maps sections of pipe that need to be replaced based on a point system. Factors taken into consideration include the pipe's age, leakage history, material used, gas pressure, size and location, amongst others. Photogrammetry is another digital tool we use to measure the precise positioning of our pipelines, translating a series of images into engineering records that aid us in asset management.

"Now I can do my part in protecting the environment, as a contribution to my son."

NEW ENERGY AND DIVERSIFIED BUSINESSES

# eco-friendly choices.

The ECO's renewable energy initiative is underway, with the construction of a plant converting bio-oil into high-quality chemical products and fuel substitutes nearing completion

ECO's pilot project converting agricultural waste into furfural and levulinic acid is anticipated to have significant implications for the nation's environmental practices The construction of our South East New Territories (SENT) landfill gas treatment facility has been completed, further actualising our sustainable development goals





## NEW ENERGY AND DIVERSIFIED BUSINESSES

Towngas is environmentally conscious in all business considerations. Our research and development initiatives continue to cultivate clean fuel alternatives with considerable environmental benefits and economic potential. Looking forward, our innovative ventures are expected to contribute to a sustainable future for the Group and the environment.



Expected to commence by the end of 2017, our new facility in Zhangjiagang, Jiangsu province, will convert low-grade by-products of the oil refining process into valuable feedstock.

#### **New ECO Energy**

ECO Environmental Investments Limited (ECO) is the Group's new energy platform. With strong research and development in alternative energy, ECO has successfully introduced innovative technology turning low-grade waste materials into high-value energy products, bringing the Group closer to its new energy vision. Currently, our product portfolio comprises clean fuels such as liquefied natural gas (LNG), methanol and other gasoline substitutes, with more high-value, environmentallyfriendly energy, chemical and material products soon to be added. By building a diverse energy portfolio sourced from indigenous low-value feedstock, ECO is defining a new route for mainland China to simultaneously meet its future energy demands and address its environmental concerns.

One of ECO's key strategies is to develop a robust LNG value chain. To secure our supply of LNG, we are converting various types of feedstock abundant on the mainland, including coalbed methane. Our coalbed methane liquefaction facility in Jincheng, Shanxi province, converts 250 million cubic metres into LNG each year. Though depressed LNG market prices in the first half of 2016 presented a challenge, our operations have continued to run smoothly. Meanwhile, construction of another facility in Xuzhou, Jiangsu province, which converts coke oven gas, an industrial by-product of the coke-making process, into methane and LNG, is nearing completion. With this project expanding ECO's LNG production capacity, business is expected to improve in 2017, in tandem with recovering international crude oil prices.

Our coal-based chemical plant in Inner Mongolia employs clean coal technology to generate syngas, which is then synthesised into methanol. Production capacity of the plant was expanded to exceed 1,000 tonnes of methanol a day in 2016, and we also began construction of a facility to upgrade methanol into natural gasoline that can be used to substitute high-grade gasoline. The facility is currently undergoing operational trials, and is expected to be completed by mid-2017.



By expanding ECO's refilling station network, we continue to drive the conversion from diesel to cleaner natural gas for vehicles across the mainland.

In 2016, we launched another construction project at our Inner Mongolia plant to convert 40 per cent of the coal-based syngas into ethylene glycol, a high-value chemical product in great demand for the production of polyester fibres and antifreeze formulations. The project is expected to start trial production by the end of 2017, and marks significant progress in our efforts to transform the Inner Mongolia coal chemical plant into a downstream value-adding facility that uses our own state-of-the-art technology to turn coal feedstock into environmentally-friendly products of high economic value.

The construction of a plant to upgrade low-grade inedible bio-oil in Zhangjiagang, Jiangsu province, is proceeding as planned, with production trials set for the third guarter of 2017. Integrating ECO's proprietary technology for the highest efficiency and yield, the plant will have the capacity to convert up to 220,000 tonnes of palm acid oil per year into high-value fuel substitutes by extracting high-quality oleic acid and upgrading the residue into surfactant chemical products. Further research and development is underway to refine even purer forms of oleic acid and linoleic acid for greater added value.

#### NEW ENERGY AND DIVERSIFIED BUSINESSES

Our SENT landfill gas treatment plant will be commissioned in the second quarter of 2017.

As an agrarian economy, mainland China produces an abundance of agricultural waste after harvest seasons annually, which ECO has targeted as an important source of raw material for our renewable initiatives. Traditionally, agricultural waste is burned on-site, causing severe smog pollution during harvest seasons. Using innovative technology developed in-house, ECO has launched a pilot project in Tangshan, Hebei province, converting agricultural waste into furfural and levulinic acid, which can be further upgraded into valuable clean fuel additives. It is expected to begin operational trials in the second half of 2017.

New energy vehicles are being championed worldwide in an effort to combat air pollution. Much research is being carried out to achieve a breakthrough in battery technology, which

dictates the performance of the vehicle. ECO has developed and patented a technology to produce high-grade pitch from tar oil. This pitch has the potential to produce high-quality carbon material products in bulk, including activated carbon with a high specific surface area, an essential material for supercapacitors, and mesocarbon microbead, the preferred material for high performance battery anode production. Both are crucial components of high performance power storage systems. Currently, ECO is conducting a mid-scale industrial test to ready the technology for commercial application. In addition, ECO is pursuing advanced development works to formulate silicon-carbon composite anode materials with even higher power storage capacity.

On the demand end of our LNG value chain, ECO is focusing on initiatives that drive the conversion from diesel to cleaner and less expensive LNG for heavy-duty trucks and marine vessels across the mainland. ECO currently possesses 62 vehicular refilling stations in operation, under construction or at the planning stage, forming an extensive network in provinces and autonomous regions including Shaanxi, Inner Mongolia, Ningxia, Shandong, Shanxi, Jiangsu, Henan and Liaoning. Our facilities are strategically stationed, for example, at depots and along the routes of Guangzhou's publicly operated waste disposal fleet. By expanding our network of refilling stations, we are forging a highly integrated LNG value chain in anticipation of expanding LNG fleets on the mainland.

In Hong Kong, ECO's major businesses – a facility supplying aviation fuel to Hong Kong International Airport, dedicated liquefied petroleum gas (LPG) vehicular refilling stations serving a network of taxis and mini-buses, and landfill gas utilisation projects, continued to operate smoothly in 2016.

ECO's aviation fuel facility provided a safe and reliable fuel supply to Hong Kong International Airport, with a total turnover of approximately 6.2 million tonnes in 2016, it continues to contribute a steadily growing return on investment. Despite depressed international oil prices over the past year, our five dedicated LPG refilling stations were able to reap a satisfactory profit margin and pass the benefit of lower LPG prices on to customers at the same time.

ECO continues striving for wider utilisation of landfill gas - an otherwise wasted source of energy generated by the decomposition of municipal waste which, apart from a small portion used for on-site power generation, is typically flared off in a polluting manner. In 2003, ECO began its acclaimed project at the North East New Territories (NENT) site, one of Hong Kong's three strategic landfill sites, transporting treated landfill gas to our Tai Po gas production plant through a dedicated 19 km pipeline. Furthering our carbon emission reduction efforts in Hong Kong, ECO's second landfill gas utilisation project, located at the SENT landfill site,

was progressing smoothly and is expected to commission in the first half of 2017, marking the start of a new chapter in our green journey.

#### Telecommunications

Towngas Telecommunications Company Limited (TGT) provides connectivity and cloud computing services to professional clients, such as telecommunications carriers, international network service providers and reputable corporations.

Our synergistic connection and comprehensive portfolio are tailored to meet customer demand with colocation, server hosting and various value-added services that have received high satisfaction ratings.



TGT now operates six data centres across Hong Kong and mainland China with a total capacity of 15,000 server racks.

#### NEW ENERGY AND DIVERSIFIED BUSINESSES

This year, we expanded our capabilities by joining with strategic partners, including Hong Kong Broadband Network, to create two joint ventures, TGgo and Broadbandgo, which provide cloud computing, broadband and Wi-Fi services. We also continued our efforts to facilitate business application development on cloud technology, creating clouds for finance, gas utilities and more.

While seizing business opportunities in the Big Data Era, TGT is privileged to serve as Vice President of the Shenzhen Big Data Industry Association. This is a remarkable and beneficial opportunity for us to expand our business and establish our plans for long-term development on the mainland.

TGT was honoured with numerous international awards and recognitions this year. TGT Hong Kong Data Centre 2 was awarded the ISO14001, ISO20000-1, ISO27001 and Level II security guidelines issued by the Hong Kong government, and TGT Dalian Data Centre 1 won the U.S. Green Building Council's LEED Core and Shell System Gold Level Certificate, among others.

#### **Information Technology**

As a wholly-owned subsidiary of Towngas, S-Tech Technology Holding Limited (S-Tech) is responsible for software development, project implementation and system integration, all of which have successfully enhanced service quality and efficiency for the Group.

Currently, S-Tech has deployed its Towngas Customer Information System to 80 per cent of the Company's city-gas joint ventures on the mainland. By using cloud and mobility solution, we developed applications such as Mobility Regular Safety Inspection, Mobility Meter Reading and Mobility Maintenance Service, saving management costs and improving customer service quality. To provide a more interactive and comprehensive service to Towngas customers, we leverage innovative technology to link up with several key service platforms, including an online service centre, payment gateway, smart metering and call centre system. S-Tech also invests in developing gas-specific Supervisory Control and Data Acquisition and Geographic Information System to further enhance operational safety while offering high-quality and efficient gas services.

#### Civil and Building Services Engineering

U-Tech Engineering Company Limited (U-Tech), another

The advanced Near Field Communication (NFC) residential gas meters developed by M-Tech offer more accurate gas consumption readings and allow for tariff prepayment.



wholly-owned subsidiary, provides consultancy and engineering contractor services in Hong Kong and Macau. It specialises in utilities installation, infrastructure construction, trenchless technologies and civil and building services engineering for public and private projects.

2016 was an excellent year for U-Tech, with the successful completion of several landmark projects, including the supply and installation of electrical works and air-conditioning for the Manulife Tower in Kowloon Bay, the construction of a footbridge linking Tsing Yi North Bridge and Tsing Yi MTR Station, and the rehabilitation of seawater cooling mains for the Electrical and Mechanical Services Department in Central and Wan Chai. During the year, U-Tech secured several new contracts, including the installation of electrical works, fire services and air-conditioning for the Manulife Financial Centre in Kwun Tong, and the construction of 13 pedestrian elevators for the **Civil Engineering and Development** Department. U-Tech also won its first slope improvement contract from the Agriculture, Fisheries and Conservation Department.

In recognition of its high standards of quality and safety, U-Tech was awarded the Safety Performance Award – Construction from the Occupational Safety and Health Council for the third consecutive year. U-Tech also received the HKCA Proactive Safety Contractors Award from the Hong Kong Construction Association.

#### Manufacturing Businesses

Proprietary smart gas meter solutions are developed and marketed by our subsidiary, M-Tech Metering Solutions Company Limited (M-Tech). These gas meters incorporate Micro-Electro-Mechanical Systems (MEMS) technology to eliminate the effect of temperature and pressure towards meter accuracy, achieving a more accurate measurement in gas consumption. These features have driven down the cost of installation. We are planning to supply these solutions to all our city-gas businesses, as well as others in mainland China and overseas.

In 2016, M-Tech launched a new generation of NFC residential gas meters to meet the requirement for tier tariffs on the mainland. These meters allow for tariff prepayment, tier tariff settings and gas consumption records to avoid conflict during tariff adjustment. They also have several gas safety features, such as regular safety inspection alerts, excess flow cut-off and external interference alarms. Committed to customer satisfaction, M-Tech developed an advanced smallscale commercial meter with MEMS technology to provide more options for metering solution.

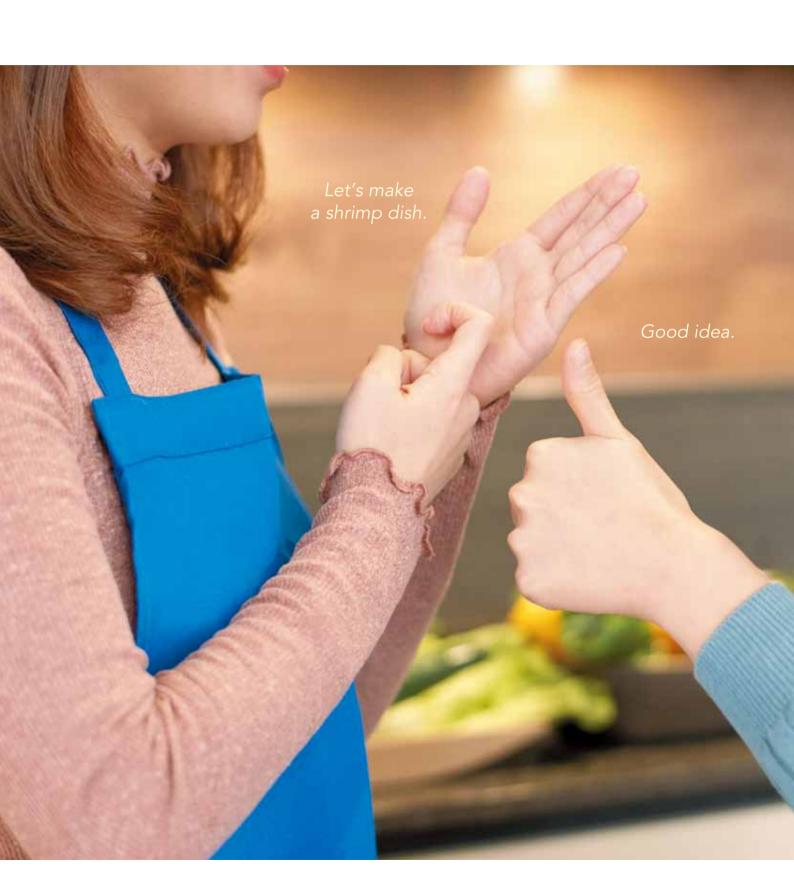
To ensure the highest standards of quality across the supply chain, G-Tech Piping System (Zhongshan) Company Limited (G-Tech) supplies high-quality polyethylene (PE) pipes, supported by our joint venture with the UK-based Fusion Group, GH-Fusion Corporation Limited (GH-Fusion), which specialises in PE fittings.

Despite the relatively weak export climate in mainland China, the PE piping business expanded rapidly in 2016, reinforced by steadily increasing export opportunities. During the year, the business supplied approximately one-third of the Group's mainland markets and started developing business in other regions as well as markets outside the Group. To capture these opportunities, a second G-Tech PE pipe factory came into operation in Maanshan, Anhui province in the last quarter of 2016, doubling total production capacity and enabling a wider market reach on the mainland. GH-Fusion also developed a number of new PE fittings to address the needs of the market.

#### **2016** New Energy and Other Projects

New Energy Projects	Year of Establishment	Project Investment Rmb M	Registered Capital Rmb M	Equity Share %	
COAL MINING Jiangxi Fengcheng Inner Mongolia Erdos Kejian	2008 2011	1,100 450	236 150	25% 100%	
COAL-BASED CHEMICAL Jiangxi Fengcheng Inner Mongolia Erdos	2009 2009	1,250 1,170	350 867	40% 100%	
CNG/LNG REFILLING STATIONS Shaanxi Xianyang Shaanxi Huitai Shaanxi Lueyang Shaanxi Fengxiang Shaanxi Shenmu Shaanxi Baoji Shaanxi Jouzhi Shaanxi Weinan Gushi Shaanxi Weinan Tianshi Shaanxi Weinan Tianshi Shaanxi Weinan Tianshi Shaanxi Weinan Tianshi Shaanxi Yuanping Shanxi Yuanping Shanxi Yuanping Shanxi Yuanping Shanxi Dinglu Shanxi Ninzhou Shandong Chiping Shandong Chiping Shandong Dongping Shandong Dongping Shandong Jiaxiang Shandong Jongping Shandong Jiaxiang Shandong Shanxian Shandong Shanxian Shandong Shanxian Shandong Shanxian Shandong Heze Hebei Shijiazhuang Xingtai (Gangxing) Xingtai (Gangxing) Xingtai (Gangxing) Xingtai (Gangxing) Henan Xinmi Henan Anyang Henan Linzhou Henan Nanyang Henan Luoyang Yanshi Inner Mongolia Huhhot Inner Mongolia Huhhot Inner Mongolia Chifeng Inner Mongolia Chaha'eryouyiqian Qi Inner Mongolia Chaha'eryouyiqian Qi Inner Mongolia Chaha'eryouyiqian Qi Inner Mongolia Chaha'enyouyiqian Qi Inner Mongolia Ulanqab Huade Inner Mongolia Ulanqab Chahar	2008 2010 2014 2014 2015 2015 2016 2016 2016 2016 2008 2013 2014 2016 2010 2010 2010 2010 2010 2010 2010	12 54 21 30 60 29 14 15 21 47 40 25 27 30 30 30 11 43 50 58 28 22 23 65 20 24 29 29 29 29 29 29 29 29 29 29 29 30 14 15 28 11 30 65 20 24 29 14	$\begin{array}{c} 12\\ 27\\ 13\\ 15\\ 38\\ 14\\ 10\\ 11\\ 14\\ 41\\ 20\\ 20\\ 14\\ 15\\ 15\\ 8\\ 26\\ 28\\ 29\\ 14\\ 13\\ 13\\ 31\\ 17\\ 23\\ 15\\ 14\\ 15\\ 20\\ 10\\ 10\\ 10\\ 14\\ 8\\ 15\\ 15\\ 15\\ 15\\ 15\\ 15\\ 14\\ 6\end{array}$	100% 100%	
Inner Mongolia Bayannur Uradqian Qi Inner Mongolia Bayannur Linhe Inner Mongolia Bayannur Hanggin Ningxia Guangwuxian	2016 2016 2016 2015	15 15 25 15	7 6 18 11	100% 90% 90% 100%	

New Energy Projects	Year of Establishment	Project Investment Rmb M	Registered Capital Rmb M	Equity Share %	
CNG/LNG REFILLING STATIONS Ningxia Qingtongxia Ningxia Jinyintan Ningxia Zhongwei Ningxia Zhongwei Haixing Development Zone Jiangxu Xuzhou Anhui Maanshan Jiangxi Pengze Guangdong Guangzhou UPSTREAM PROJECTS Shanxi LCBM Jilin Tianyuan Xuzhou COG Heze COG COAL LOGISTIC PROJECT Shandong Jining Jiaxianggang Logistic Port BIOMASS Zhangjiagang	2015 2015 2016 2016 2015 2006 2015 2013 2006 2007 2014 2014 2011 2014	21 28 18 30 40 15 45 26 600 140 453 450 540 610	15 14 12 15 20 11 30 13 200 5 151 150 180 205	100% 100% 100% 80% 30% 70% 100% 70% 50% 80% 90% 88%	
Tangshan Yutian Oilfield Project	2016	180	60	100%	
Phetchabun Province in Thailand Telecommunication Projects	2012	USD 181M	USD 12,000	100%	
Shandong Jinan Shandong Jinan Chibo Shandong Laiyang Xuzhou Fengxian Xuzhou Peixian Liaoning Dalian DETA Dalian Yida Harbin Beijing Zhongjing Beijing Chibo Dongguan Shenzhen (Qianhai) Shenzhen (Interlink Connectivity) Other Projects	2008 2009 2011 2012 2010 2011 2013 2014 2013 2014 2013 2014 2013	80 504 14 11 13 14 190 158 14 14 240 59 99	40 168 10 8 9 10 76 63 10 10 10 80 29.5 40	90.1% 81.4% 90% 100% 49% 90% 80% 49% 97% 60% 100% 30%	
Shenyang Sanquan Construction Supervisory ECO Engineering Management (Xi'an) Suzhou Industrial Park Broad Energy Services GH Yixing Ecology Dalian (New Energy Technology) M-Tech GH-Fusion G-Tech Towngas Technology S-Tech (Zhuhai) ECO Engineering Management (Shenzhen) Towngas Livestyle Towngas Payment Technology (Shenzhen) Hong Kong & China Gas International Energy Trading	2011 2014 2012 2013 2015 2011 2001 2012 2011 2014 2014 2014 2015 2015 2016	4 13 170 184 USD 4.75M 60 87 77.5 30 7 30 7 30 7 50 125	3 9 71 184 USD 4.75M 30 43 31 21 5 15 5 28 50	60% 100% 25% 100% 100% 50% 100% 100% 100% 100% 100	



"After attending the sign language courses, we made a great team at the cooking contest."

CORPORATE SOCIAL RESPONSIBILITY

# inclusive community.

Towngas was honoured with three awards of the Hong Kong Outstanding Corporate Citizenship Awards for the achievements in corporate social responsibility

Caring for vulnerable people in society, we distributed about 330,000 rice dumplings and more than 100,000 mooncakes Towngas championed the inclusion of people with disabilities with a series of activities in partnership with SAHK and the Hong Kong Society for the Deaf (HKSOD)

## CORPORATE SOCIAL RESPONSIBILITY

As a leader in the energy industry, it is our responsibility to pioneer the development of green energy solutions and build a better environment for the next generation. To create an inclusive society, we partner with employees, customers, contractors and the public to better serve the community as a whole.

#### **Caring for the Environment**

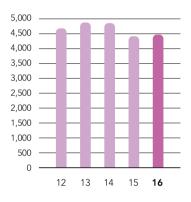
We are committed to protecting and improving the environment so as to ensure sustainable development. By developing innovative methods to conserve energy, supply competitive clean fuel alternatives and utilise wasted energy sources, we continually work on new standards in sustainable business practices.

In 2016, we focused on driving a shift from the use of coal and diesel to natural gas, a cleaner and safer option, in mainland China. While securing supplies of natural gas from low-value waste resources, we made progress expanding our network of gas refilling stations, furthering our efforts to reduce the country's pollution levels.

Towngas is a significant initiator in terms of renewable landfill gas utilisation in Hong Kong. The landfill gas initiative is one of Hong Kong's most effective forays into renewable energy to date, delivering the dual benefits of offsetting the city's carbon footprint by harnessing greenhouse gas, as well as partially substituting fossil-based feedstock alternatives. Alice Ho Miu Ling Nethersole Hospital's combined heat and power generation (CHP) system is fuelled by our North East New Territories (NENT) landfill gas treatment plant. On top of this, the HK\$350 million South East New Territories landfill gas treatment plant is expected to be commissioned in the first half of 2017, and capable to reduce carbon emissions by 56,000 tonnes a year, equivalent to the planting of 2.4 million tree seedlings. This plant will produce enough treated landfill gas, together with our NENT landfill site and Tai Po Shuen Wan facilities, to constitute around 5 per cent of the feedstock for our local gas production.

Our commitment to the environment also guides the way we conduct our operations. Towngas headquarters is Hong Kong's first non-residential building to earn the Final Platinum rating under the BEAM Plus Existing Building

**Revenue per Employee** Company (HK\$ thousand)



Version 1.2 standard and was named U Favourite Hong Kong Green Building by U Magazine during the year.

To further reduce our carbon footprint, we began using old cast iron pipes as host pipes to renew gas pipes via trenchless technology, reducing construction waste by 90 per cent and carbon emissions by 60 per cent. The Group's climate change risk assessment practice was expanded to include our mainland operations with a series of workshops conducted in selected regions, implementing structures for close monitoring and reviewing.

### BEAM Plus Award Presentation Ceremony 2016



Towngas headquarters is Hong Kong's first non-residential building to attain the Final Platinum rating under BEAM Plus. Secretary for the Environment Wong Kam Sing (middle) presented the award to Towngas Managing Director Alfred Chan (right).

Towngas believes that for environmental initiatives to be effective, public education is essential. During the year, we continued to be active in environmental campaigns organised by community groups. Highlighting the issue of food waste in Hong Kong, for example, we partnered with Food Grace to organise workshops and a product design competition to educate the community on methods of recycling food waste. In Hong Kong, the quantity of paper towels sent to landfill matches that of plastic bags. To raise awareness of this issue, Towngas supported Get in Gear Volunteers, an event organised by the Junior Chamber International Lion Rock with the theme, "Green City, Green Life, Stop Using Paper Towels!". We also encourage our staff to use handkerchiefs instead of paper tissues.

On the mainland, Towngas organises an annual carbon reduction competition that has seen the creation of 195 projects since 2010. It was expanded to include projects in Hong Kong in 2016, leading to a reduction in carbon emissions by about 120,500 tonnes annually.

During the year, more than 30 mainland companies of the Group invited staff and their families, customers and the general public to join our Low Carbon Creative SHOW. The campaign included more than 50 events, such as low carbon commutes, Earth Hour and the planting of over 2,500 trees, greening an area of more than 6,600 square metres in mainland China.

In recognition of our efforts, Towngas was honoured with the BOCHK Corporate Environmental Leadership Awards 2015 – Gold Award (Manufacturing section), and named a Hong Kong Green Organisation by the Environmental Campaign Committee and the Environmental Protection Department. Moreover, Towngas was awarded the World Green Organisation's Sustainable Business Award.

#### Supporting our Communities

At Towngas, employees generously volunteer their free time to create a better society for all. Throughout 2016, the Towngas Volunteer Service Team took part in 248 community service projects in Hong Kong. The team comprises 830 customers and employees, who have collaboratively logged 697,594 volunteering hours since the team was established in 1999.

#### CORPORATE SOCIAL RESPONSIBILITY

Towngas pays particular attention to promoting the integration of people with disabilities into society. During the year, we joined with SAHK to organise Games of Friendship, which saw over 60 Towngas volunteers facilitating around 300 SAHK service users to participate in sports activities. In addition, the Hong Kong and China Gas Charity Foundation donated HK\$100,000 to SAHK for new sporting equipment.

We also held the Social Harmony Cooking Contest in collaboration with the HKSOD – the first contest of its kind in the city. Towngas volunteers teamed up with hearing-impaired partners and communicated in sign language to cook a winning dish.

In 2016, we supported ethnic minorities by organising a Hand-in-Hand Mooncakes of Love workshop with the Hong Kong Community Network's LINK Centre, sponsored by the Home Affairs Department. We invited 124 charity groups and local organisations to share mooncakes with ethnic minorities and those in need, and together we have donated more than 1.8 million mooncakes during Mid-Autumn Festivals over the years. For Dragon Boat Festival, we also garnered the support of nearly 220 Legislative Councillors and District Councillors, together with 25 local organisations and other volunteers to donate about 330,000 rice dumplings to the elderly and vulnerable groups in society.

Caring for senior citizens and needy families, Towngas offers concession schemes and free maintenance services, currently benefiting 45,719 households. The Group's Electrical Toilet Washlet Donation programme continued to enhance self-care and confidence for the elderly while reducing the workload

of caretakers. In 2016, the amount raised by employees and matched by the Company exceeded HK\$330,000, and the programme has installed over 200 washlets in elderly hostels since its inception. Our Soup to Warm the Heart campaign, held in collaboration with the Social Welfare Department and six elderly community centres, saw approximately 600 servings of soup delivered to senior citizens living alone. Since 1999, Towngas has distributed more than 470,000 bottles of soup to the elderly in Hong Kong.

One of the Group's major volunteering activities is our Farming for Fun programme, launched in 2014. Volunteers and their families work at the organic farm every Saturday. During the year, approximately 640 kg of vegetables were harvested and distributed to 29 social centres.

Towngas sponsored The Conservancy Association's Eco Rangers 2016 event, raising public awareness of environmental protection.



Towngas China's Gentle Breeze Movement continued helping schools in impoverished rural areas of mainland China by donating new teaching equipment.



Towngas takes great care to ensure our community values are honoured across our operations in all regions. Currently, almost 90 per cent of our city-gas and water enterprises have established volunteer service teams, collectively contributing 93,701 hours to serving their communities this year.

As an advocate of quality education, the Group launched the Gentle Breeze Movement in mainland China to help improve learning and living condition for children living in rural areas. In 2016, nearly 900 teachers and students benefitted from the programme. We donated learning supplies and dormitory supplies to schools in Sichuan and Liaoning provinces respectively. Furthermore, we sponsored renovation work and the purchase of learning materials and teaching equipment for primary school in Shaanxi province. Since 2013, the initiative has donated more than RMB2.9 million to 32 schools and 200 households.

We continued to support Shanghai Soong Ching Ling Foundation – BEA Charity Fund, donating more than RMB200,000 worth of electronic education equipment for over 1,300 students at a school in Tai'an, Shandong province. We funded and built the Firefly Centre for the school and repainted the computer classroom. In future, we aim to purchase computers, projectors and audio-visual equipment, and establish multimedia classrooms for schools in need.

Our Rice Dumplings for the Community project in 2016 mobilised more than 80 mainland companies to participate. Altogether, 46,000 rice dumplings and festive gifts valued at RMB200,000 were handed out, benefitting nearly 9,000 people. Our dedication to the community has been widely recognised. Towngas was honoured by the Hong Kong Productivity Council with the Gold Awards in both Enterprise category and Volunteer Team category, together with a Special Commendation for Community Care at the Hong Kong Outstanding Corporate Citizenship Awards. The Towngas Volunteer Service Team won the Champion of the Highest Service Hour Award in the Private Organisation - Best Customer Participation category for the ninth consecutive year.

## Caring for the Well-Being of Our Employees

At Towngas, our employees are free to lead balanced lives, ensuring happiness at home and productivity at work.

#### CORPORATE SOCIAL RESPONSIBILITY



We kicked off our annual Mooncakes for the Community initiative with a workshop celebrating the Mid-Autumn Festival with ethnic minorities, promoting inclusion and diversity.

Towngas headquarters in Hong Kong hosts a library, fitness facilities and clinic, as well as a mother care room, which will double in size in 2017. In addition to annual, maternity, paternity and compassionate leave, the Company allows employees who are undertaking professional development courses to take time off for examinations. With a long history in Hong Kong, our scholarship programmes for employees' children were launched in mainland China in 2013 and the number of approved applications was the highest in 2016.

Through our mainland Employee Caring Programme, employees learned valuable lifestyle tips with workshops which focused on four topics: Living with Positive Energy, My Healthy Life, My Low Carbon Life and My Happiness. Understanding the challenges faced by working parents, we initiate staff activities focusing on building positive parentchild relationships. Our annual "Whole Family Together for Love" event is an opportunity for staff to spend a fun day at a farm, boosting team spirit with their families and colleagues.

During the year, we received our second Distinguished Family-Friendly Employers 2015/16 Award and Special Mention 2015/16 (Gold) by the Home Affairs Bureau and the Family Council.

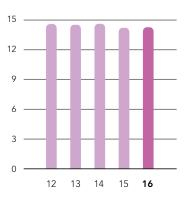
#### **Developing Our People**

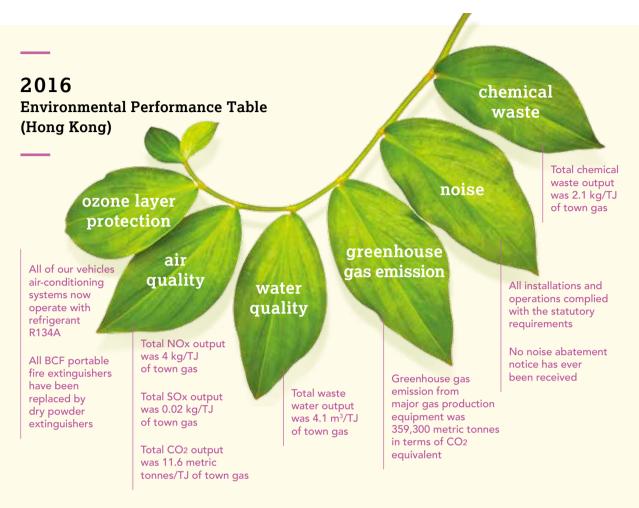
Talent development is a high priority at Towngas, as we require an ever-increasing number of highly skilled people to sustain our expanding business.

To fulfil the management requirements of all our businesses, our comprehensive leadership learning curriculum offered a series of workshops on driving change, spurring team innovation and providing top quality customer service in regional hubs, including Qingdao, Jinan, Suzhou and Shenzhen, throughout 2016. Our flagship Executive Development Programme, a collaborative effort between Towngas and Tsinghua University, was organised in its ninth year with 46 senior executives from different business sectors graduate. The Towngas Leadership Competencies Acceleration Programme is designed to prepare middle management for future leadership. In 2016, 18 managers completed the programme, ready to assume greater responsibility in driving business forward while furthering their own careers within the Company. We plan to continue training high potential talent at all levels through similar schemes next year.

Towngas treasures graduates as the foundation for a powerful leadership pipeline. In 2016, we hired 26 graduate trainees from universities in Hong Kong, mainland China and overseas. The programme included work placement in different locations and cross-learning events, as an

#### Town Gas Sales per Employee Company (million MJ)





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

opportunity for trainees to collaborate and gain a wider view of the Group's operations. Since 2014, 41 staff members from Hong Kong have started or completed the short-term mobility assignment in China. Additionally, 380 mainland employees participated in exchange trips to Hong Kong for training in safety standards and technical skills this year.

The Towngas Engineering Academy (TEA) offers technical training for our employees. Towngas is the first and only gas company in mainland China, accredited by the Hong Kong Institution of Engineers and the Institution of Gas Engineers and Managers (IGEM), to provide dedicated training schemes for gas engineers. Our Masters programme, offered in partnership with the Hong Kong Management Association and the University of Technology Sydney, saw 23 engineers graduate in Hong Kong and Shenzhen, some of whom are already applying for the globally recognised IGEM qualification.

Keeping pace with advancing engineering standards, we opened a new Commercial and Industrial System Simulation Area, equipped with cutting-edge technology for interactive learning.

Guided by our Growth = Innovation × Implementation (G=ixi) campaign, numerous initiatives fostering out-of-the-box thinking were developed. The TEA's Continuing Transformation Office published an internal newsletter, Innovation Headlines, in 2015, as an avenue for our joint ventures to exchange ideas. In 2016, we launched the public WeChat group, TG's World of Innovation, to share instant news and insights with our colleagues.

#### CORPORATE SOCIAL RESPONSIBILITY



As one example of our efforts to provide an ideal workplace for our employees, we installed height-adjustable desks to cater to the needs of staff with disabilities.

Additionally, the Towngas Hall of Innovation at our Hong Kong headquarters continues to showcase employee innovations that have significantly improved workflow, safety and productivity. We are constantly seeking creative solutions because innovation is the cornerstone of our corporate DNA. We setup the G=ixi Laboratory to provide a technical platform for the rapid prototyping of creative ideas from our staff.

Our Total Quality Management programme continues to motivate employees in their pursuit of excellence, with emphasis on the "Three Courtesies": etiquette, politeness and care. We promoted the Three Courtesies culture in Hong Kong and mainland China, and have already seen marked improvement in work attitudes, service behaviour and colleague relationships. As a gas supply and infrastructure company, a large portion of our business relies on the quality of technical work. In 2016, the Group launched the MasterCraft programme to cultivate craftsmanship among our frontline technicians. The final competitions of MasterCraft Award were held in Hong Kong headquarters to recognise technicians who use innovative methods and tools with attention to aesthetic details to produce high quality installation work.

In 2017, we will provide more training programmes building the resilience and creativity of our employees, with topics centred on market awareness, innovative industry solutions, change management, stress management and social media understanding.

#### **Supplier Relationship**

Towngas is committed to reliable long-term business relationships

with suppliers through fair and ethical purchasing practices. We work closely with our business partners to meet the needs of our customers, while maximising the advantages of our strong collective position across the Group. Our web-based e-commerce system facilitates tendering processes and purchasing transactions between our joint ventures and suppliers for effective supply chain management. In 2016, we promoted use of the 6S application among our suppliers' management teams to improve product quality, efficiency and productivity, and reduce the risk of industrial accidents.

#### **Putting Safety First**

Towngas works with employees to continuously develop new methods of enhancing personal and workplace safety and health. In 2016, we drove the improvement of safe working at height and heat stroke prevention. The Group's Stay Healthy programme increased awareness of health in the workplace, and the 2016 Health, Safety and Environment month brought employees and contractors together for a similar purpose with a strong focus on occupational health and safety, and environmental protection. Our efforts to advance our safety culture and performance was recognised as we have successfully renewed the International Safe Workplace Programme certification.

To prepare our staff for handling crises, we organised the Towngas Telecom Corporate Emergency Table Top exercise to improve our management team's skill to handle emergency situations. We also worked with the Hong Kong Fire Services Department to organise safety exercises at our premises, including gas production plants, liquefied petroleum gas refilling stations and Towngas headquarters, etc. Our operations team were equipped with firefighting and fire prevention techniques after receiving a five-day practical firefighting training course through the Fire and Ambulance Services Academy conducted by Fire Services Department.

#### Driving Growth and Building Long-term Value

As a socially responsible industry leader, we implement sound corporate values throughout our business practices to achieve sustainable growth. During the year, we complied with laws and regulations that had significant impact on the Company.

Our success is rooted in the communities we serve, and we view our influence on society not only as a privilege but also a great responsibility. With extensive reach throughout Hong Kong and mainland China, we are poised to impact society with cultural values of quality, courtesy and environmental awareness in a significant way.

**Business** 

Growth

Value

Improved

Shareholder Return

Innovation

Safety and

Reliability

Products and

Services

**Operational** 

Excellence

Corporate

Citizenship

Drivers

Fuelled by our management theme "Expanding New Horizons", we are moving in new and exciting directions on all fronts. We strive to ensure continuous growth by advocating the G=ixi formula to foster an innovative work culture and bring pioneering ideas to fruition. By investing in further opportunities over the coming years, we aim to reaffirm our reputation as a caring leader in public utilities and clean energy.

#### Organisation Values



## **RISK FACTORS**

Towngas continues to expand across Hong Kong and mainland China. To ensure growth, Towngas constantly analyses the risks we encounter every day, allowing us to prepare for whatever we may face while maintaining our dedication to sustainable and environmentally sound practices.

#### **Business Environment**

Following the decision of Britain's exit from the European Union and the US presidential election, the fluctuating global economic situation is causing associated uncertainties to prevail in the business environment. In addition, mainland China's rapid economic growth has slowed to a more moderate pace as a result of contracting exports, overcapacity and weak industrial output. These, together with the global warming effect, may gradually lower the regional energy demand. However, the need to mitigate air pollution through clean energy and the demand for housing to support urbanisation will continue to rise.

Hong Kong tourism continues to slow down, possibly due to local currency appreciation and reduced popularity amongst travellers from mainland China. This trend may adversely affect the restaurant and hotel industries, thus lessening their gas consumption.

The mainland China market faces competition from direct sales by dominating upstream gas companies, as well as liquefied natural gas (LNG) and alternative energy suppliers. Volatility of energy prices and government policy changes (whether political, legal, regulatory, environmental or competition-related) may further impact our operations. Therefore, our strategy to cope with such business risks is crucial to the prolonged success of the Group.

Measures taken include remaining prudence in capital investments whilst enhancing productivity and cost effectiveness in all aspects of our operations. In addition, close credit monitoring is also reinforced to manage default risks.

Furthermore, Towngas is continually exploring new applications for gas in Hong Kong and mainland China. Close communication is also maintained with operational partners and government for prominent support.

#### **Reliability of Gas Supply**

In Hong Kong, Towngas has secured multiple sources of feedstock for town gas production: natural gas, which is transmitted from the LNG receiving terminal at Shenzhen to our Tai Po gas production plant; naphtha, which is imported from Southeast Asian countries, Australia as well as the Middle East; and treated landfill gas, which is harnessed at local landfill sites.

Interruption to the feedstock supply for natural gas may result from inclement weather causing delay to the LNG tankers. Consequently, Towngas has adopted a diversified strategy for production, wherein the Tai Po plant possesses the capability of switching between natural gas and naphtha for feedstock during the course of town gas production.

In mainland China, LNG storage facilities are in place, with the addition of newly-constructed underground salt caverns for gas storage in the Jintan district of Jiangsu province, which will commence operational trials in 2017.

Reliable gas transmission is achieved through a sophisticated Supervisory Control and Data Acquisition (SCADA) system, which monitors and controls our pressure-regulating stations and network. Comprehensive training is provided to operational staff while asset management systems are also deployed. Contingency plans, with regular practice drills, prepare us for events impacting customers and the public.

#### Production and Network Safety

It is among our top priorities to prevent any major leakages or explosions in our production and storage facilities, pipelines and networks. In the event that our critical facilities or related infrastructure suffer physical harm from, e.g. third party damage, security threats or extreme weather events such as severe typhoons, flooding or landslides, the resulting safety incidents and interruption to service may have a significant legal, financial and/or reputational impact on the Group.

To mitigate these risks, Towngas conducts regular reviews of all operating procedures and implements strategies tailored to addressing such risks. Our total quality management system covers all critical production, storage, transmission and distribution facilities, and ensures assets are well managed according to international standards with external certifications. Furthermore, Towngas maintains adequate insurance coverage against any property damage and financial loss.

#### **Information Security**

Our business operations rely on information technology systems. Any critical system failure, leakage or loss of sensitive information could have unfavourable material consequences for the Group. Towngas adopts different protective measures to manage data loss, monitor suspicious cyber activities and regularly assess security by having third parties to identify any system enhancement areas. While contingency plans with regular drills are in place to counter system failures, group-wide staff awareness programmes on cybersecurity and sensitive information handling are implemented to properly safeguard against increasing information security threats.

#### **Health and Safety**

Minimising occupational health and safety risks is crucial to the operation of Towngas. Incidents such as serious accidents or the outbreak of a communicable disease could cause injury, loss of life and operational disruption, resulting in huge recovery costs, litigation and reputational damage.

To mitigate and contain those risks that are either directly or indirectly under our control, we actively encourage the reporting and monitoring of hazards and potential problems at all levels.

Comprehensive guidelines and established measures ensure that the safety performance of Towngas conforms to the highest industry standards, whilst our thorough safety management system, certified for compliance with international standards, is reviewed and updated regularly to ensure that the relevant issues are properly managed. Moreover, to maintain a perpetual, comprehensive and effective culture of safety, Towngas provides staff and contractors alike with systematic professional, technical and safety-related training.

## FINANCIAL RESOURCES REVIEW

#### Liquidity and Capital Resources

As at 31st December 2016, the Group had a net current deposits position of HK\$5,505 million (31st December 2015: HK\$3,541 million) and long-term borrowings of HK\$27,296 million (31st December 2015: HK\$23,363 million). In addition, banking facilities available for use amounted to HK\$11,500 million (31st December 2015: HK\$13,000 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 under the Programme. In May 2012, the Programme was updated with the size increased to US\$2 billion. Up to 31st December 2016 after the repayment of Renminbi notes during the year, the Group issued notes in the total amount of HK\$11,934 million (31st December 2015: HK\$11,818 million) with maturity terms of 10 years, 12 years, 15 years, 30 years and 40 years in Australian dollar, Japanese ven and Hong Kong dollar under the Programme (the "MTNs"). The carrying value of the issued MTNs as at 31st December 2016 was HK\$11.196 million (31st December 2015: HK\$11,055 million).

As at 31st December 2016, the outstanding principal amount of the 10-year US dollar Guaranteed Notes (the "Guaranteed Notes") issued by the Group in August 2008 at a fixed coupon rate of 6.25 per cent per annum was US\$995 million (31st December 2015: US\$995 million) and the carrying value was HK\$7,701 million (31st December 2015: HK\$7,682 million). As at 31st December 2016, the Group's borrowings amounted to HK\$33,248 million (31st December 2015: HK\$33,076 million). While the Notes mentioned above together with the bank and other loans of HK\$4,381 million (31st December 2015: HK\$1.684 million) had fixed interest rate and were unsecured, the remaining bank and other loans of the Group were unsecured and had a floating interest rate, of which HK\$6,496 million (31st December 2015: HK\$5,582 million) were long-term bank loans and HK\$3,474 million (31st December 2015: HK\$7,073 million) had maturities within one year on revolving credit or term loan facilities. As at 31st December 2016, the maturity profile of the Group's borrowings was 18 per cent within 1 year, 28 per cent within 1 to 2 years, 22 per cent within 2 to 5 years and 32 per cent over 5 years (31st December 2015: 29 per cent within 1 year, 5 per cent within 1 to 2 years, 37 per cent within 2 to 5 years and 29 per cent over 5 years).

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

In January 2014, the Group issued its first Perpetual Subordinated Guaranteed Capital Securities (the "Perpetual Capital Securities") amounting to US\$300 million with distribution rate of 4.75 per cent per annum for the first five years and thereafter at floating distribution rate. With no fixed maturity and the distribution payment can be deferred at the discretion of the Group, the Perpetual Capital Securities are redeemable at the Group's option on or after 28th January 2019 and are accounted for as equity in the financial statements. The 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 2016 remained healthy at 28 per cent (31st December 2015: 26 per cent).

#### **Contingent Liabilities**

As at 31st December 2016 and 31st December 2015, 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 of 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 2016, the investments in securities amounted to HK\$1,649 million (31st December 2015: HK\$1,646 million). The performance of the Group's financial investments in securities was satisfactory.

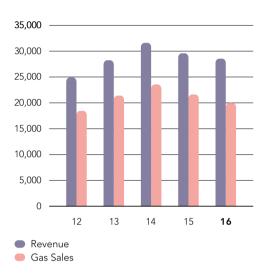
## FIVE-YEAR FINANCIAL STATISTICS

## Earnings and Dividends per Share (HK\$)

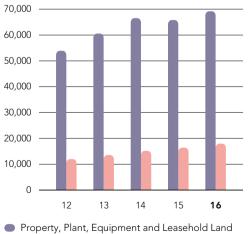


#### **Revenue and Gas Sales**

(HK\$ million)



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



Accumulated Depreciation and Amortisation

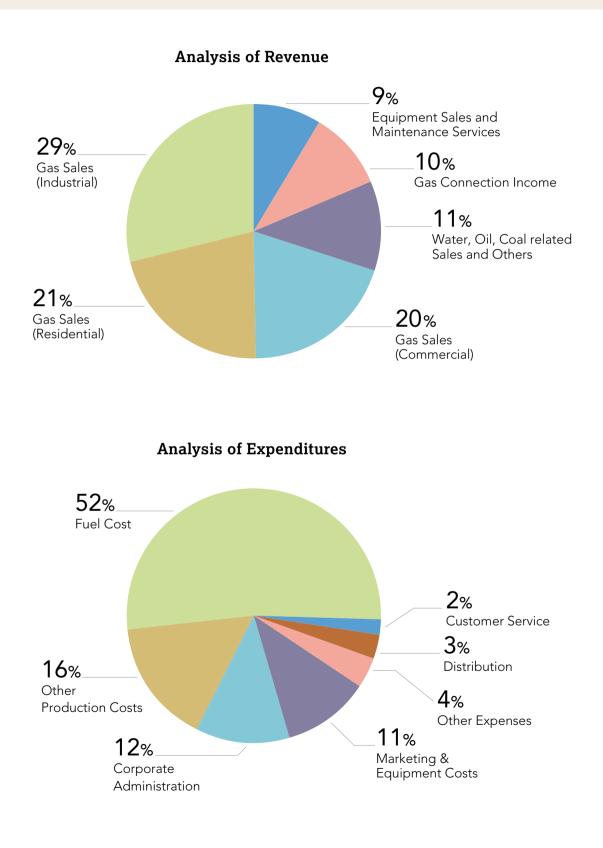
#### **Capital Expenditures**

(HK\$ million)



Depreciation and Amortisation

## **2016 FINANCIAL ANALYSIS**



## COMPARISON OF TEN-YEAR RESULTS

	2016	2015	2014	
Highlights (Company)				
Number of Customers as at 31st December	1,859,414	1,839,261	1,819,935	
Town Gas Sales, million MJ	28,814	28,404	28,835	
Installed Capacity, thousand m³ per day	12,596	12,596	12,260	
Maximum Daily Demand, thousand m <sup>3</sup>	6,964	6,172	6,571	
Revenue and Profit	нк\$'м	HK\$'M	HK\$'M	
Revenue	28,557.1	29,591.3	31,614.7	
Profit before Taxation	9,845.7	9,906.0	9,874.6	
Taxation	(1,575.9)	(1,726.7)	(1,771.4)	
Profit after Taxation	8,269.8	8,179.3	8,103.2	
Holders of Perpetual Capital Securities	(110.5)	(110.5)	(102.2)	
Non-controlling Interests	(818.6)	(766.8)	(891.8)	
Profit Attributable to Shareholders	7,340.7	7,302.0	7,109.2	
Dividends	4,450.9	4,046.6	3,679.7	
Assets and Liabilities				
Property, Plant, Equipment and Leasehold Land	51,226.2	49,417.5	51,353.6	
Investment Property	729.0	713.0	683.0	
Intangible Assets	5,572.4	5,819.5	5,858.5	
Associates	20,485.0	19,591.9	17,572.5	
Joint Ventures	9,226.5	9,288.2	9,033.8	
Available-for-sale Financial Assets	4,967.1	4,567.0	2,599.7	
Other Non-current Assets	3,366.3	2,533.3	2,668.3	
Current Assets	21,170.9	23,632.9	24,641.5	
Current Liabilities	(19,547.5)	(23,180.6)	(20,689.6)	
Non-current Liabilities	(34,297.9)	(30,269.8)	(31,497.6)	
Net Assets	62,898.0	62,112.9	62,223.7	
Capital and Reserves				
Share Capital	5,474.7	5,474.7	5,474.7	
Share Premium	-	-	-	
Reserves	45,532.6	44,707.7	44,735.7	
Proposed Dividend	2,924.9	2,659.0	2,417.8	
Shareholders' Funds	53,932.2	52,841.4	52,628.2	
Perpetual Capital Securities	2,353.8	2,353.8	2,353.8	
Non-controlling Interests	6,612.0	6,917.7	7,241.7	
Total Equity	62,898.0	62,112.9	62,223.7	
Earnings per Share, HK Dollar *	0.58	0.57	0.56	
Dividends per Share, HK Dollar *	0.35	0.32	0.29	
Dividend Cover	1.65	1.80	1.93	

 $\ast$  Adjusted for the bonus share issue in 2016

2013	2012	2011	2010	2009	2008	2007
 2010		2011				
1,798,731	1,776,360	1,750,553	1,724,316	1,698,723	1,672,084	1,646,492
28,556	28,360	28,147	27,578	27,274	27,583	27,041
12,260	12,260	12,260	12,260	12,260	12,260	12,260
6,283	6,403	6,742	6,191	6,621	7,158	5,806
HK\$'M	HK\$'M	HK\$'M	HK\$'M	HK\$'M	HK\$'M	HK\$'M
 28,245.9	24,922.5	22,426.8	19,375.4	12,351.8	12,352.2	14,225.5
9,410.8	9,885.6	8,068.7	7,086.7	6,159.9	5,189.6	10,577.3
 (1,655.2)	(1,484.6)	(1,344.0)	(1,038.8)	(750.6)	(546.3)	(933.8)
7,755.6	8,401.0	6,724.7	6,047.9	5,409.3	4,643.3	9,643.5
-	-	-	-	-	-	-
 (901.8)	(688.9)	(575.1)	(463.1)	(134.2)	(92.3)	(64.1)
 6,853.8	7,712.1	6,149.6	5,584.8	5,275.1	4,551.0	9,579.4
 3,345.9	3,041.7	4,147.8	2,513.8	2,285.3	2,333.0	2,120.9
47.000.0	41 01 4 1		27 025 0	04 450 /	15 ( 20.0	
47,002.3	41,914.1	33,606.3	27,825.8	24,452.6	15,638.0	13,585.7
646.0	540.0	518.0	501.0	501.0	523.0	410.0
5,253.3	3,845.4	3,434.8	2,575.6	2,461.7	196.4	185.1
17,015.1	16,307.1	12,706.8	10,802.2	9,304.0	11,327.7	9,016.6
8,939.0	9,103.6	8,964.7	7,768.8	7,011.2	6,164.0	6,501.7
2,937.3	3,078.6	3,110.6	3,441.2	2,996.0	1,105.2	1,066.9
2,913.5	2,710.6	2,734.5	2,791.9	722.7	153.8	148.0
21,688.7	21,437.8	19,955.1	16,957.6	19,622.3	17,708.2	12,961.2
(19,261.8)	(17,252.9)	(13,403.4)	(16,523.4)	(10,628.8)	(5,407.7)	(7,188.3)
 (30,762.9)	(31,334.1)	(25,353.3)	(14,932.1)	(18,635.4)	(14,989.7)	(6,517.0)
 56,370.5	50,350.2	46,274.1	41,208.6	37,807.3	32,418.9	30,169.9
2,389.9	2,172.6	1,975.1	1,795.6	1,632.3	1,666.4	1,514.9
2,861.0	3,078.3	3,275.8	3,455.3	3,618.6	3,618.6	3,770.1
42,418.0	37,952.1		30,561.3	27,112.3	24,752.6	22,769.1
42,418.0 2,198.7	1,998.8	33,075.4 3,199.7	1,651.9		1,533.1	
 49,867.6	45,201.8	41,526.0	37,464.1	1,501.8 33,865.0	31,570.7	1,393.7 29,447.8
+7,007.0	43,201.0	41,520.0	57,404.1	55,005.0	51,570.7	27,447.0
- 6,502.9	- 5,148.4	- 4,748.1	- 3,744.5	- 3,942.3	- 848.2	- 722.1
 56,370.5	50,350.2	4,748.1	41,208.6	37,807.3	32,418.9	30,169.9
 30,370.3	50,550.2	40,274.1	41,200.0	57,007.3	52,410.7	50,107.7
0.54	0.61	0.48	0.44	0.41	0.35	0.75
0.34	0.24	0.48	0.44	0.41	0.33	0.75
2.05	2.54	1.48	2.22	2.31	1.95	4.52
2.05	2.34	1.40	2.22	2.01	1.75	4.JZ

## **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 2016 which are to be presented at the Annual General Meeting to be held at Meeting Room N101 (Expo Drive Entrance), Hong Kong Convention and Exhibition Centre, Wanchai, Hong Kong on Wednesday, 7th June 2017.

#### **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 177 to 187 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 2016 are set out in the consolidated income statement and the consolidated statement of comprehensive income on pages 91 and 92 of this Annual Report respectively.

An interim dividend of HK12 cents per share was paid to shareholders on 3rd October 2016 and the Directors recommend a final dividend of HK23 cents per share payable on 23rd June 2017 to shareholders whose names are on the register of members of the Company on 15th June 2017.

#### **Bonus Issue of Shares**

The Directors recommend a bonus issue of shares on the basis of one bonus share for every ten existing shares held by shareholders whose names are on the register of members of the Company on 15th June 2017. 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 2016 (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 6 to 65 of this Annual Report. Description of the possible risks and uncertainties that the Group may be facing are set out on page 60. Also, the financial risk management of the Group can be found in Note 3 to the consolidated financial statements. In addition, discussions on the Group's relationships with its key stakeholders, environmental policies and performance, and compliance with relevant laws and regulations which have a significant impact on the Group can be found from pages 22 to 59 and pages 73 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 2016 amounted to HK\$14,101,700,000 (2015: HK\$12,830,500,000) before the proposed final dividend for the year ended 31st December 2016.

#### **Shares Issued**

During the year, the Company issued 1,156,094,750 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\$7,100,000 (2015: HK\$7,100,000).

#### **Directors**

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

#### **Non-executive Directors**

Dr. the Hon. LEE Shau Kee (Chairman) Dr. Colin LAM Ko Yin Dr. LEE Ka Kit Mr. LEE Ka Shing

#### Independent Non-executive Directors

Mr. LEUNG Hay Man Dr. the Hon. Sir David LI Kwok Po Professor POON Chung Kwong

#### **Executive Directors**

Mr. Alfred CHAN Wing Kin Mr. Peter WONG Wai Yee

At the annual general meeting held on 7th June 2016 (the "2016 AGM"), Mr. Leung Hay Man, Dr. Colin Lam Ko Yin and Mr. Lee Ka Shing were re-elected as Directors of the Company. Dr. the Hon. Lee Shau Kee, Dr. the Hon. Sir David Li Kwok Po, Dr. Lee Ka Kit, Mr. Alfred Chan Wing Kin, Professor Poon Chung Kwong and Mr. Peter Wong Wai Yee held office throughout the year.

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. the Hon. Sir David Li Kwok Po, Dr. Lee Ka Kit and Mr. Peter Wong Wai Yee are due to retire by rotation at the forthcoming Annual General Meeting and, being eligible, offer themselves for re-appointment. Details of these directors proposed for re-election are set out in the circular sent together with this Annual Report.

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

#### **Biographical Details of Directors**

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

#### **Disclosure of Interests**

#### A. Directors

As at 31st December 2016, 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 Share			
Name of Company	Name of Director	Personal Interests	Corporate Interests	Other Interests	Aggregate Interests	%*
The Hong Kong and China Gas	Dr. the Hon. Lee Shau Kee		5,280,460,351 (Note 3)		5,280,460,351	41.52
Company Limited	Dr. the Hon. Sir David Li Kwok Po	35,466,650			35,466,650	0.28
	Dr. Lee Ka Kit			5,280,460,351 (Note 2)	5,280,460,351	41.52
	Mr. Alfred Chan Wing Kin	242,448 (Note 5)			242,448	0.00
	Mr. Lee Ka Shing			5,280,460,351 (Note 2)	5,280,460,351	41.52
	Professor Poon Chung Kwong	165,655 (Note 4)			165,655	0.00
Lane Success Development	Dr. the Hon. Lee Shau Kee		9,500 (Note 6)		9,500	95
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	Dr. the Hon. Lee Shau Kee		2 (Note 7)		2	100
Limited	Dr. Lee Ka Kit			2 (Note 7)	2	100
	Mr. Lee Ka Shing			2 (Note 7)	2	100
Towngas China Company	Dr. the Hon. Lee Shau Kee		1,738,673,246 (Note 8)		1,738,673,246	64.12
Limited ("Towngas China")	Dr. Lee Ka Kit			1,738,673,246 (Note 8)	1,738,673,246	64.12
	Mr. Lee Ka Shing			1,738,673,246 (Note 8)	1,738,673,246	64.12
	Mr. Alfred Chan Wing Kin	3,618,000			3,618,000	0.13
	Mr. Peter Wong Wai Yee	3,015,000			3,015,000	0.11

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

#### Disclosure of Interests (Continued)

#### A. Directors (Continued)

Save as mentioned above, as at 31st December 2016, there were no other interests or short positions of the Directors of the Company in any shares, underlying shares or debentures of the Company or any of its associated corporations (within the meaning of Part XV of the SFO) recorded in the register maintained by the Company pursuant to section 352 of the SFO or as otherwise notified to the Company and the Exchange pursuant to the Model Code for Securities Transactions by Directors of Listed Issuers.

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

As at 31st December 2016, the interests and short positions of every person, other than the Directors of the Company, in the shares and underlying shares of the Company as recorded in the register required to be kept under section 336 of the SFO were as follows:

	Name of Company	No. of Shares in which Interested	%*
Substantial Shareholders (a person who is entitled to exercise, or control the exercise of, 10% or more	Disralei Investment Limited (Note 1)	2,939,646,295	23.12
	Timpani Investments Limited (Note 1)	4,081,423,508	32.09
	Faxson Investment Limited (Note 1)	5,280,460,351	41.52
of the voting power at	Henderson Land Development Company Limited (Note 1)	5,280,460,351	41.52
Hopkir Riddic	Henderson Development Limited (Note 1)	5,280,460,351	41.52
	Hopkins (Cayman) Limited (Note 2)	5,280,460,351	41.52
	Riddick (Cayman) Limited (Note 2)	5,280,460,351	41.52
	Rimmer (Cayman) Limited (Note 2)	5,280,460,351	41.52
Persons other than Substantial Shareholders	Macrostar Investment Limited (Note 1)	1,199,036,843	9.43
	Chelco Investment Limited (Note 1)	1,199,036,843	9.43
	Medley Investment Limited (Note 1)	1,141,777,213	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 2016, 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.

#### Disclosure of Interests (Continued)

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

Notes:

- 1. These 5,280,460,351 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 5,280,460,351 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 5,280,460,351 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 165,655 shares were jointly held by Professor Poon Chung Kwong and his spouse.
- 5. These 242,448 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. the Hon. Lee Shau Kee, Dr. Lee Ka Kit and Mr. Lee Ka Shing were taken to be interested in HLD and the Company as set out in Notes 1 to 3 by virtue of Part XV of the SFO.
- 7. These 2 shares in Yieldway International Limited were beneficially owned by a wholly-owned subsidiary of the Company (as to 1 share) and a wholly-owned subsidiary of HLD (as to 1 share). Dr. the Hon. Lee Shau Kee, Dr. Lee Ka Kit and Mr. Lee Ka Shing were taken to be interested in HLD and the Company as set out in Notes 1 to 3 by virtue of Part XV of the SFO.
- 8. These 1,738,673,246 shares in Towngas China representing 64.12% of the total issued shares in Towngas China were beneficially owned by Hong Kong & China Gas (China) Limited (as to 1,656,650,221 shares), Planwise Properties Limited (as to 79,410,349 shares) and Superfun Enterprises Limited (as to 2,612,676 shares), wholly-owned subsidiaries of the Company. Dr. the Hon. Lee Shau Kee, Dr. Lee Ka Kit and Mr. Lee Ka Shing were taken to be interested in the Company as set out in Notes 1 to 3 by virtue of Part XV of the SFO.

#### **Equity-Linked Agreements**

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

#### **Arrangements to Purchase Shares or Debentures**

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

#### **Directors' Interests in Competing Businesses**

Pursuant to Rule 8.10 of the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (the "Listing Rules"), the interests of Directors of the Company in businesses which might compete with the Group during the year ended 31st December 2016 and as at 31st December 2016 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, there were no connected transactions and continuing connected transactions which were required to be disclosed in accordance with the requirements of the Listing Rules.

None of the related party transactions as set out in Note 40 to the consolidated financial statements constituted a discloseable connected transaction under Chapter 14A of the Listing Rules.

## Directors' Material Interests in Transactions, Arrangements or Contracts

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

#### **Management Contracts**

No contracts (as defined in Section 543 of the Companies Ordinance) concerning the management and administration of the whole or any substantial part of the business of the Company were entered into or existed during the year.

#### Purchase, Sale or Redemption of the Company's Listed Securities

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

#### **Permitted Indemnity**

Pursuant to the Articles of Association, subject to the provisions of the Companies Ordinance, every Director or other officer of the Company shall be indemnified out of the assets of the Company against any liability incurred by him as a director or other officer of the Company in defending any proceedings (whether civil or criminal) in which judgment 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 73 to 84 of this Annual Report.

## **Public Float**

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

## Auditor

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

On behalf of the Board

**LEE Shau Kee** *Chairman* Hong Kong, 16th March 2017

## **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 2016, the Company complied with all the code provisions as set out in the Corporate Governance Code (the "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 Code.

### **Board of Directors**

#### **Responsibilities of Directors**

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

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

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

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

All Directors have participated in appropriate continuous professional development and provided the Company with their records of training they received for the year ended 31st December 2016.

During the year ended 31st December 2016, all Directors participated in the training which included reading regulatory updates or information relevant to the Group or its business and attending or giving talks at seminars and/or conferences.

#### **Responsibilities of Directors** (Continued)

Directors	Training
Non-executive Directors	
Dr. the Hon. LEE Shau Kee (Chairman)	1
Dr. Colin LAM Ko Yin	1
Dr. LEE Ka Kit	1
Mr. LEE Ka Shing	1
Independent Non-executive Directors	
Mr. LEUNG Hay Man	1
Dr. the Hon. Sir David LI Kwok Po	1
Professor POON Chung Kwong	<b>/</b> /
Executive Directors	
Mr. Alfred CHAN Wing Kin	1
Mr. Peter WONG Wai Yee	✓

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 their risks arising from the businesses of the Group.

#### **Corporate Governance Functions**

The Board is responsible for the Group's system of corporate governance and has performed and reviewed in a timely manner the corporate governance functions as required under the Code. During the year ended 31st December 2016, the Board reviewed the Company's policies and practices on corporate governance and the disclosure in the Corporate Governance Report. The terms of reference for performing the corporate governance functions as set out in the Code were approved by the Board for adoption.

#### **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 Composition**

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

As at the date of publication of this Annual Report, the Directors of the Company are set out below:

#### **Non-executive Directors**

Dr. the Hon. LEE Shau Kee (Chairman) Dr. Colin LAM Ko Yin Dr. LEE Ka Kit Mr. LEE Ka Shing

#### **Independent Non-executive Directors**

Mr. LEUNG Hay Man Dr. the Hon. Sir David LI Kwok Po Professor POON Chung Kwong

#### **Executive Directors**

Mr. Alfred CHAN Wing Kin Mr. Peter WONG Wai Yee

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

Biographical details of the Directors and relevant relationships among them are set out from pages 17 to 20 of this Annual Report. Save as disclosed therein, there is no financial, business, family or other material/relevant relationship among the Directors. A list of the 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 of the Company (the "Articles of Association"), one-third of all the directors are subject to retirement by rotation at every annual general meeting. 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 2017.

#### Chairman of the Board and Managing Director

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

#### **Board 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 2016, the Board met four times. The attendance of each Director at the Board meetings during the year ended 31st December 2016 is set out below:

Directors	No. of Meetings Attended / Held
Non-executive Directors	
Dr. the Hon. LEE Shau Kee (Chairman)	4/4
Dr. Colin LAM Ko Yin	4/4
Dr. LEE Ka Kit	4/4
Mr. LEE Ka Shing	4/4
Independent Non-executive Directors	
Mr. LEUNG Hay Man	4/4
Dr. the Hon. Sir David LI Kwok Po	4/4
Professor POON Chung Kwong	4/4
Executive Directors	
Mr. Alfred CHAN Wing Kin	4/4
Mr. Peter WONG Wai Yee	4/4

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 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"). Following specific enquiry by the Company, all Directors have confirmed that they fully complied with the required standard set out in the Model Code throughout the year ended 31st December 2016.

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.

### **Directors' Responsibility for the Financial Statements**

The Directors acknowledge their responsibilities for preparing the financial statements for the year ended 31st December 2016, 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 the 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 on pages 85 to 90 of this Annual Report.

### **Board Committees**

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

#### **Board Audit and Risk Committee**

The Audit Committee was formed in May 1996. The Audit Committee was renamed as the Board Audit and Risk Committee effective from 1st January 2016, to better reflect its functions and responsibilities, and continue to oversee the risk management functions at the Company. The members of the Board Audit and Risk Committee are Dr. the Hon. Sir David Li Kwok Po (Chairman of the Board Audit and Risk Committee), Mr. Leung Hay Man and Professor Poon Chung Kwong. 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 controlrelated 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. 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 2016 and the following sets out a summary of the work of the Board Audit and Risk Committee during such period:

- review of the financial reports for 2015 annual results and 2016 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;
- review of the effectiveness of the Company's financial control and risk management and internal control systems, including the review of the adequacy of resources, staff qualifications and experience, training programmes and budget of the Company's accounting and financial reporting function; and
- review of the terms of reference of the Board Audit and Risk Committee with recommendation to the Board.

## Board 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 2016 is set out below:

Board Audit and Risk Committee Members	No. of Meetings Attended / Held
Dr. the Hon. Sir David LI Kwok Po (Chairman)	2/2
Mr. LEUNG Hay Man	2/2
Professor POON Chung Kwong	2/2

## **Remuneration Committee**

The Company established a Remuneration Committee on 7th September 2005. The Remuneration Committee is chaired by Dr. the Hon. Sir David Li Kwok Po (Independent Non-executive Director) with Dr. the Hon. Lee Shau Kee (Non-executive Director) and Professor Poon Chung Kwong (Independent Non-executive Director) as members.

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

The Company has not adopted any share option scheme. The emoluments of Directors are determined based on the duties and responsibilities of each Director. The Directors' fees were reviewed by the Remuneration Committee. During the year ended 31st December 2016, every Director received a Director's fee at the rate of HK\$200,000 per annum while the Chairman of the Board received an additional fee at the rate of HK\$200,000 per annum and each member of the Board Audit and Risk Committee, Remuneration Committee and 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 2016, 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 2016 is set out below:

Remuneration Committee Members	No. of Meetings Attended / Held
Dr. the Hon. Sir David LI Kwok Po (Chairman)	1/1
Dr. the Hon. LEE Shau Kee	1/1
Professor POON Chung Kwong	1/1

### Board Committees (Continued)

#### **Nomination Committee**

The Company established a Nomination Committee on 19th March 2012. The Nomination Committee is chaired by Dr. the Hon. Lee Shau Kee (Non-executive Director) with Dr. the Hon. Sir David Li Kwok Po and Professor Poon Chung Kwong (both are Independent Non-executive Directors) as members.

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 2016. 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 2016 Annual General Meeting.

The attendance record of each member at the Nomination Committee meeting during the year ended 31st December 2016 is set out below:

Nomination Committee Members	No. of Meetings Attended / Held
Dr. the Hon. LEE Shau Kee (Chairman)	1/1
Dr. the Hon. Sir David LI Kwok Po	1/1
Professor POON Chung Kwong	1/1

#### **Auditor's Remuneration**

For the year ended 31st December 2016, the total remuneration in respect of statutory audit services provided by the Company's external auditor, PricewaterhouseCoopers, amounted to approximately HK\$10.8 million. During the year, payment to PricewaterhouseCoopers in respect of non-audit services, mainly including taxation services and interim results review services provided to the Group amounted to approximately HK\$4.8 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 which provides 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 is 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 2016, the Board, through the Board Audit and Risk Committee, reviewed 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)

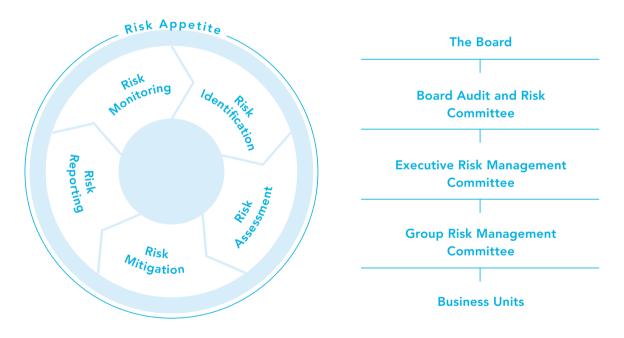
#### **Risk Management**

#### **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 an annual review of the effectiveness of the risk management system has been conducted.

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

#### **Policy and Procedures on Disclosure of Inside Information**

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

#### **Company Secretary**

The Company Secretary is responsible for assisting the Board by ensuring good information flow within the Board 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 Directors.

### Company Secretary (Continued)

During the year ended 31st December 2016, 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 annual general meetings ("AGMs") of the Company provide a good forum for communication between the Board and shareholders. Notices of the AGMs are despatched to all shareholders at least 20 clear business days prior to such AGMs. The chairmen of all Board Committees are invited to attend the AGMs. The Chairman of the Board and the chairmen of all the Board Committees are available to answer questions at the AGMs. Auditor is also invited to attend the AGMs 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 business day following the shareholders' meeting. Moreover, a separate resolution will be proposed by the chairman of a general meeting in respect of each substantially separate issue.

The 2016 AGM was held on 7th June 2016. The attendance record of each Director at the 2016 AGM is set out below:

Directors	No. of Meetings Attended / Held
Non-executive Directors	
Dr. the Hon. LEE Shau Kee (Chairman)	1/1
Dr. Colin LAM Ko Yin	1/1
Dr. LEE Ka Kit	1/1
Mr. LEE Ka Shing	1/1
Independent Non-executive Directors	
Mr. LEUNG Hay Man	1/1
Dr. the Hon. Sir David LI Kwok Po	1/1
Professor POON Chung Kwong	1/1
Executive Directors	
Mr. Alfred CHAN Wing Kin	1/1
Mr. Peter WONG Wai Yee	1/1

### **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.

## Shareholders' Rights (Continued)

#### **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. A 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.

## 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. A 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 188 of this Annual Report and the Company's website.

#### Proposing a Person for Election as a Director

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

## **Investor Relations**

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

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

## **Constitutional Documents**

The latest version of the Articles of Association is available on both the Company's and the Exchange's websites. During the year ended 31st December 2016, there is no change in the Articles of Association.

# INDEPENDENT AUDITOR'S REPORT



羅兵咸永道

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

## Opinion

#### What we have audited

The consolidated financial statements of The Hong Kong and China Gas Company Limited (the "Company") and its subsidiaries (the "Group") set out on pages 91 to 187, which comprise:

- the consolidated income statement for the year ended 31st December 2016 ;
- the consolidated statement of comprehensive income for the year then ended;
- the consolidated statement of financial position as at 31st December 2016;
- 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 2016, 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 judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

## Key audit matters (Continued)

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

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

Key Audit Matter	How our audit addressed the Key Audit Matter
Valuation of investment in certain equity interests of an unlisted company	Our procedures in relation to management's valuation of the Investment include:
Refer to notes 3, 4 and 23 to the consolidated financial statements	<ul> <li>Evaluating the independent professional valuer's competence, capabilities and objectivity;</li> </ul>
The investment in certain equity interests 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 an available-for sale financial asset and it was subject to fair value revaluation at each reporting date. The Investment at 31st December 2016 was valued by an independent professional valuer. With reference to the valuation, management had estimated the fair value of the Investment at HK\$2.8 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	<ul> <li>Assessing the valuation methodology used by the independent professional valuer to estimate the fair value of the Investment;</li> <li>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;</li> <li>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</li> </ul>
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.	<ul> <li>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;</li> <li>Testing the mathematical accuracy of the cash flows projection; and</li> </ul>
	<ul> <li>Performing sensitivity analysis in consideration of the potential impact of reasonably possible upside or downside changes in these key assumptions.</li> </ul>

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 coal mine and oil properties	Our procedures in relation to management's impairment assessment of coal mine and oil properties include:
Refer to notes 4 and 16 to the consolidated financial statements	<ul> <li>Evaluating the independent professional valuer's and consultant's competence, capabilities and objectivity;</li> </ul>
In relation to the new energy business segment, the Group owned oil properties in Thailand	<ul> <li>Assessing the methodology used by management to estimate value-in-use;</li> </ul>
which engaged in the exploration, drilling and sale of crude oil and a coal mine in mainland China. The carrying values of the coal mine and oil properties are mainly included under "mining and oil properties" of HK\$3.4 billion of property, plant and equipment as at 31st December 2016.	<ul> <li>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;</li> </ul>
In the consideration of the prices of the primary outputs of these projects, namely coal and oil were in low level and volatile in recent years, management considered there were impairment indicators and performed impairment assessments on these assets.	• Assessing the appropriateness of cash flows projection in calculation of the value-in-use of the coal mine and oil properties, challenging the reasonableness of key assumptions such as the future production volume, selling prices and production costs, discount rate, coal and oil reserves, etc. based
Under the impairment assessments, with the assistance of independent professional valuer and consultant, management calculated the recoverable amounts using the value-in-use method. As the value-in-use calculations required the use of significant management judgements and estimates, including the coal and oil reserves, future business growth, future	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 and other relevant information. Internal valuation expert had been engaged to assist the review on methodology of the value-in-use calculations and discount rate; and
products selling prices and production costs,	• Performing sensitivity analysis in consideration of the

• Performing sensitivity analysis in consideration of the potential impact of reasonably possible downside changes in these key assumptions.

Based on the audit procedures performed, we found that the assumptions made by management were supported by available evidence.

discount rate etc., we considered it as one of the

key audit matters.

## 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	Our audit procedures in relation to recognition of gas connection income include:
<ul> <li>Refer to notes 4 and 5 to the consolidated financial statements</li> <li>The Group recognises its gas connection income with reference to the stage of completion of individual contracting work of gas connection facilities. The Group had recognised gas connection income of HK\$2.8 billion for the year ended 31st December 2016.</li> <li>Stage of completion is measured by reference to work performed up to the end of the reporting period. 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.</li> </ul>	<ul> <li>Understanding, evaluating and testing the key controls operated by the Group around the estimation of the total contract costs and actual costs incurred;</li> <li>Checked, on a sample basis, to contracts, invoices, project status reports and other relevant correspondences to evaluate the reasonableness of management's assessment of budgeted total contract costs and actual costs incurred; and</li> <li>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.</li> <li>We found the management's estimations and judgements in the recognition of gas connection income to be reasonable based on the available evidence.</li> </ul>
The eventual realisation of these estimates are inherently uncertain, subject to the outcome of finalisation with the sub-contractors. Any change in estimate of the total contract costs, which determined the stage of completion, would affect the gas connection income recognition.	
Due to its quantitative significance to the consolidated income statement and significant judgments involved in the determination of the stage of completion, we considered recognition of gas connection income as one of the key audit matters.	

## 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 judgment 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.

## PricewaterhouseCoopers

Certified Public Accountants Hong Kong, 16th March 2017

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

# CONSOLIDATED INCOME STATEMENT

for the year ended 31st December 2016

	Note	2016 HK\$'M	2015 HK\$'M
Revenue	5	28,557.1	29,591.3
Total operating expenses	6	(21,387.2)	(22,601.9)
		7,169.9	6,989.4
Other (losses)/gains, net	7	(29.5)	101.4
Interest expense	9	(1,207.4)	(1,128.6)
Share of results of associates	21	2,447.4	2,228.2
Share of results of joint ventures	22	1,465.3	1,715.6
Profit before taxation	10	9,845.7	9,906.0
Taxation	13	(1,575.9)	(1,726.7)
Profit for the year		8,269.8	8,179.3
Attributable to:			
Shareholders of the Company		7,340.7	7,302.0
Holders of perpetual capital securities		110.5	110.5
Non-controlling interests		818.6	766.8
		8,269.8	8,179.3
Earnings per share – basic and diluted, HK cents	15	57.7	57.4*

\* Adjusted for the bonus share issue in 2016

## CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

for the year ended 31st December 2016

	2016 HK\$'M	2015 HK\$'M
Profit for the year	8,269.8	8,179.3
Other comprehensive income:		
Item that will not be reclassified subsequently to profit or loss:		
Remeasurements of retirement benefit	6.3	(23.1)
Items that may be reclassified subsequently to profit or loss:		
Change in value of available-for-sale financial assets	53.9	(929.8)
Impairment loss on available-for-sale financial assets transferred to income statement	534.3	38.6
Change in fair value of cash flow hedges	86.8	(117.2)
Share of other comprehensive income/(loss) of an associate	7.2	(5.4)
Recognition of exchange reserve upon disposal of subsidiaries	-	(83.0)
Exchange differences	(3,078.2)	(2,060.8)
Other comprehensive loss for the year, net of tax	(2,389.7)	(3,180.7)
Total comprehensive income for the year	5,880.1	4,998.6
Total comprehensive income attributable to:		
Shareholders of the Company	5,354.7	4,445.6
Holders of perpetual capital securities	110.5	110.5
Non-controlling interests	414.9	442.5
	5,880.1	4,998.6

## CONSOLIDATED STATEMENT OF FINANCIAL POSITION

as at 31st December 2016

	Note	2016 HK\$'M	2015 HK\$'M
Assets			
Non-current assets			
Property, plant and equipment	16	49,209.6	47,455.6
Investment property	17	729.0	713.0
Leasehold land	18	2,016.6	1,961.9
Intangible assets	19	5,572.4	5,819.5
Associates	21	20,485.0	19,591.9
Joint ventures	22	9,226.5	9,288.2
Available-for-sale financial assets	23	4,967.1	4,567.0
Derivative financial instruments	34	505.9	161.5
Other non-current assets	25	2,860.4	2,371.8
	-	95,572.5	91,930.4
Current assets	-		
Inventories	26	2,110.4	2,291.3
Trade and other receivables	27	6,329.6	6,896.8
Loan and other receivables from associates	21	153.4	90.9
Loan and other receivables from joint ventures	22	900.1	966.4
Loan and other receivables from non-controlling shareholders		65.4	122.6
Financial assets at fair value through profit or loss	28	67.3	12.1
Derivative financial instruments	34	87.5	-
Time deposits over three months	29	3,381.1	1,326.9
Time deposits up to three months, cash and bank balances	29	8,076.1	11,925.9
	_	21,170.9	23,632.9
Current liabilities	_		
Trade and other payables	30	(12,134.2)	(11,936.7)
Amounts due to joint ventures	22	(718.9)	(572.3)
Loan and other payables to non-controlling shareholders		(186.3)	(181.4)
Provision for taxation		(556.3)	(736.2)
Borrowings	31	(5,951.8)	(9,712.3)
Derivative financial instruments	34	-	(41.7)
	-	(19,547.5)	(23,180.6)
Total assets less current liabilities		97,195.9	92,382.7

## CONSOLIDATED STATEMENT OF FINANCIAL POSITION (Continued)

as at 31st December 2016

	Note	2016 HK\$'M	2015 HK\$'M
NUMBER OF STREET			
Non-current liabilities			
Customers' deposits	32	(1,302.8)	(1,282.9)
Deferred taxation	33	(5,067.3)	(4,874.7)
Borrowings	31	(27,296.1)	(23,363.4)
Loan payables to non-controlling shareholders		-	(21.9)
Asset retirement obligations		(39.4)	(30.2)
Derivative financial instruments	34	(542.2)	(654.4)
Retirement benefit liabilities	24	(50.1)	(42.3)
		(34,297.9)	(30,269.8)
Net assets		62,898.0	62,112.9
Capital and reserves			
Share capital	35	5,474.7	5,474.7
Reserves	37	48,457.5	47,366.7
Shareholders' funds		53,932.2	52,841.4
Perpetual capital securities	36	2,353.8	2,353.8
Non-controlling interests		6,612.0	6,917.7
Total equity		62,898.0	62,112.9

Approved by the Board of Directors on 16th March 2017

**Lee Shau Kee** Director David Li Kwok Po Director

# CONSOLIDATED CASH FLOW STATEMENT

for the year ended 31st December 2016

	Note	2016 HK\$'M	2015 HK\$'M
Net cash from operating activities	41	8,469.2	8,276.5
Investing activities			
Receipt from sale of property, plant and equipment		34.6	18.6
Receipt from sale of leasehold land		62.0	10.3
Purchase of property, plant and equipment		(6,056.7)	(6,029.3)
Payment for leasehold land		(199.9)	(326.6)
Increase in other receivables		-	(353.6)
(Increase)/decrease in investments in associates		(153.8)	37.4
Increase in loans to associates		(156.4)	(37.4)
Repayment of loans by associates		56.2	61.8
Increase in investments in joint ventures		(6.8)	(92.1)
Increase in loans to joint ventures		(9.7)	(110.0)
Increase/(decrease) in loans from joint ventures		336.6	(108.5)
Repayment of loans by joint ventures		13.1	527.7
Consideration paid for acquisition of businesses in prior periods		(37.2)	(153.2)
Deferred consideration received		-	114.1
Acquisition of businesses	42 (a) & (b)	(110.0)	(49.5)
Disposal of subsidiaries		_	(7.5)
Sale of financial assets at fair value through profit or loss		32.0	44.3
Sale of available-for-sale financial assets		481.1	601.7
Purchase of financial assets at fair value through profit or loss		(118.3)	(14.0)
Purchase of available-for-sale financial assets		(526.9)	(388.6)
Increase in time deposits over three months		(2,065.6)	(785.9)
Interest received		199.1	358.6
Dividends received from investments in securities		151.5	183.9
Dividends received from associates		848.4	820.5
Dividends received from joint ventures		758.3	938.3
Net cash used in investing activities		(6,468.4)	(4,739.0)

## CONSOLIDATED CASH FLOW STATEMENT (Continued)

for the year ended 31st December 2016

	Note	2016 HK\$'M	2015 HK\$'M
Financing activities			
Shares bought back		-	(36.0)
Issue of shares of a subsidiary under share option scheme		-	40.6
Change in loans with non-controlling shareholders		48.9	8.7
Capital injection by non-controlling shareholders		12.1	73.2
Further acquisition of subsidiaries	42 (c)	(342.5)	(387.3)
Increase in borrowings		10,924.9	12,749.1
Repayment of borrowings		(10,192.3)	(10,824.6)
Interest paid to holders of perpetual capital securities		(110.5)	(110.5)
Interest paid		(1,359.5)	(1,307.0)
Dividends paid to shareholders of the Company	43 (a)	(4,185.0)	(3,805.4)
Dividends paid to non-controlling shareholders		(469.1)	(377.7)
Net cash used in financing activities		(5,673.0)	(3,976.9)
Decrease in cash and cash equivalents		(3,672.2)	(439.4)
Cash and cash equivalents at 1st January		11,925.9	12,605.5
Effect of foreign exchange rate changes		(177.6)	(240.2)
Cash and each aminulants at 21st December		9 074 1	11 025 0
Cash and cash equivalents at 31st December		8,076.1	11,925.9
Analysis of the balances of cash and cash equivalents			
Cash and bank balances		4,008.6	5,677.0
Time deposits up to three months		4,067.5	6,248.9
		8,076.1	11,925.9

## CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

for the year ended 31st December 2016

	Attributable to shareholders of the Company		Holders of perpetual	Non-		
	Share capital HK\$'M	Reserves HK\$'M	capital securities HK\$'M	controlling interests HK\$'M	Total HK\$'M	
Total equity as at 1st January 2016	5,474.7	47,366.7	2,353.8	6,917.7	62,112.9	
Profit for the year	-	7,340.7	110.5	818.6	8,269.8	
Other comprehensive income:						
Remeasurements of retirement benefit	-	6.3	-	-	6.3	
Change in value of available-for-sale financial assets	-	57.2	-	(3.3)	53.9	
Impairment loss on available-for-sale financial assets transferred to income statement		534.3			534.3	
	-	85.5	-	- 1.3	86.8	
Change in fair value of cash flow hedges	-	00.0	-	1.5	00.0	
Share of other comprehensive income of an associate	-	7.2	-	-	7.2	
Exchange differences	-	(2,676.5)	-	(401.7)	(3,078.2)	
Total comprehensive income for the year	-	5,354.7	110.5	414.9	5,880.1	
Capital injection	-	-	-	12.1	12.1	
Further acquisition of subsidiaries (Note 42 (c))	-	(78.9)	-	(263.6)	(342.5)	
Interest paid on perpetual capital securities	-	-	(110.5)	-	(110.5)	
Dividends paid to shareholders of the Company	-	(4,185.0)	-	-	(4,185.0)	
Dividends paid to non-controlling shareholders	-	-	-	(469.1)	(469.1)	
Total equity as at 31st December 2016	5,474.7	48,457.5	2,353.8	6,612.0	62,898.0	

## CONSOLIDATED STATEMENT OF CHANGES IN EQUITY (Continued)

for the year ended 31st December 2016

	Attributable to shareholders of the Company		Holders of perpetual	Non-	
_	Share capital HK\$'M	Reserves HK\$'M	capital securities HK\$'M	controlling interests HK\$'M	Total HK\$'M
Total equity as at 1st January 2015	5,474.7	47,153.5	2,353.8	7,241.7	62,223.7
Profit for the year	-	7,302.0	110.5	766.8	8,179.3
Other comprehensive income:					
Remeasurements of retirement benefit	-	(23.1)	-	-	(23.1)
Change in value of available-for-sale financial assets	-	(942.3)	-	12.5	(929.8)
Impairment loss on available-for-sale financial assets transferred to income statement	_	38.6	-	_	38.6
Change in fair value of cash flow hedges	_	(118.2)	_	1.0	(117.2)
Share of other comprehensive loss of an associate	_	(5.4)	_	_	(5.4)
Recognition of exchange reserve upon disposal of subsidiaries	-	(83.0)	_	_	(83.0)
Exchange differences	-	(1,723.0)	-	(337.8)	(2,060.8)
Total comprehensive income for the year	-	4,445.6	110.5	442.5	4,998.6
Capital injection	-	-	-	73.2	73.2
Acquisition of businesses	-	-	-	17.7	17.7
Further acquisition of subsidiaries	-	(405.4)	-	(158.6)	(564.0)
Disposal of subsidiaries	-	-	-	(389.2)	(389.2)
Interest paid on perpetual capital securities	-	-	(110.5)	-	(110.5)
Dividends paid to shareholders of the Company	-	(3,805.4)	_	_	(3,805.4)
Dividends paid to non-controlling shareholders	_	-	_	(377.7)	(377.7)
Shares bought back	-	(36.0)	-	-	(36.0)
Others	-	14.4	-	68.1	82.5
Total equity as at 31st December 2015	5,474.7	47,366.7	2,353.8	6,917.7	62,112.9

## 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 engages in the production, distribution and marketing of gas, water supply and emerging environmentally-friendly energy businesses in Hong Kong and the People's Republic of China (the "PRC"). The Group is also engaged in property development and investment activities in Hong Kong.

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

## 2 Summary of significant accounting policies

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

#### (a) Basis of preparation

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

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

#### (i) New or revised standards, interpretations and amendments adopted in 2016

The Group has adopted the following amendments to standards and annual improvements which are effective for the Group's financial year beginning 1st January 2016 and relevant to the Group.

Amendments to HKAS 1	Disclosure initiative
Amendment to HKAS 16 and HKAS 38	Clarification of Acceptable Methods of Depreciation and Amortisation
Amendment to HKAS 27	Equity Method in Separate Financial Statements
Amendments to HKFRS 10, HKFRS 12 and HKAS 28	Investment Entities: Applying the Consolidation Exception
Amendment to HKFRS 11	Accounting for Acquisitions of Interests in Joint Operations
Annual improvements 2014	Annual Improvements to HKFRSs 2012-2014 Cycle

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

#### (a) Basis of preparation (Continued)

(ii) New or revised standards, interpretations and amendments that are not yet effective for the year ended 31st December 2016 but relevant to the Group and have not been early adopted by the Group

HKFRS 9	Financial Instruments
HKFRS 15	Revenue from Contracts with Customers
HKFRS 16	Leases
Amendments to HKAS 7	Disclosure Initiative
Amendments to HKAS 12	Recognition of Deferred Tax Assets for Unrealised Losses
Amendments to HKFRS 2	Classification and Measurement of Share-based Payment Transactions
Amendments to HKFRS 10 and HKAS 28	Sale or Contribution of Assets between an Investor and its Associate or Joint Venture
Amendments to HKFRS 15	Clarifications to HKFRS 15

#### **HKFRS 9 "Financial Instruments"**

HKFRS 9 replaces the whole of HKAS 39. HKFRS 9 has three financial asset classification categories for investments in debt instruments: amortised cost, fair value through other comprehensive income ("OCI") and fair value through profit or loss. Classification is driven by the entity's business model for managing the debt instruments and their contractual cash flow characteristics. Investments in equity instruments are always measured at fair value. However, management can make an irrevocable election to present changes in fair value in OCI, provided the instrument is not held for trading. If the equity instrument is held for trading, changes in fair value are presented in the income statement. For financial liabilities, there are two classification categories: amortised cost and fair value through profit or loss. Where non-derivative financial liabilities are designated at fair value through profit or loss, the changes in fair value would create an accounting mismatch in profit or loss, in which case, all fair value movements are recognised in the income statement. There is no subsequent recycling of the amounts in OCI to profit or loss. For financial liabilities held for trading (including derivative financial liabilities), all changes in fair value are presented in the income statement.

HKFRS 9 introduces a new model for the recognition of impairment losses – the expected credit losses (ECL) model, which constitutes a change from the incurred loss model in HKAS 39. HKFRS 9 contains a 'three stage' approach, which is based on the change in credit quality of financial assets since initial recognition. Assets move through the three stages as credit quality changes and the stages dictate how an entity measures impairment losses and applies the effective interest rate method. The new rules mean that on initial recognition of a non-credit impaired financial asset carried at amortised cost a day-1 loss equal to the 12-month ECL is recognised in the income statement. In the case of accounts receivables this day-1 loss will be equal to their lifetime ECL. Where there is a significant increase in credit risk, impairment is measured using lifetime ECL rather than 12-month ECL.

#### (a) Basis of preparation (Continued)

(ii) New or revised standards, interpretations and amendments that are not yet effective for the year ended 31st December 2016 but relevant to the Group and have not been early adopted by the Group (Continued)

#### HKFRS 9 "Financial Instruments" (Continued)

HKFRS 9 introduces a new hedge accounting rules which will align the accounting for hedging instruments more closely with the Group's risk management practices. As a general rule, more hedge relationships might be eligible for hedge accounting, as the standard introduces a more principles-based approach. While the Group is yet to undertake a detailed assessment, it would appear that the Group's current hedge relationships would qualify as continuing hedges upon the adoption of HKFRS 9.

The new standard also introduces expanded disclosure requirements and changes in presentation. These are expected to change the nature and extent of the Group's disclosures about its financial instruments particularly in the year of the adoption of the new standard.

Based on the Group's financial instruments and risk management policies as at 31st December 2016, application of HKFRS 9 in the future may have a material impact on the classification and measurement of the Group's financial assets. HKFRS 9 must be applied for financial years commencing on or after 1st January 2018. Based on the transitional provisions in the completed HKFRS 9, early adoption in phases was only permitted for annual reporting periods beginning before 1st February 2015. After that date, the new rules must be adopted in their entirety. The Group does not intend to adopt HKFRS 9 before its mandatory date.

#### HKFRS 15 "Revenue from Contracts with Customers"

HKFRS 15 establishes a comprehensive framework for determining when to recognise revenue and how much revenue to recognise through a 5-step approach: (1) Identify the contract(s) with customer; (2) Identify separate performance obligations in a contract; (3) Determine the transaction price; (4) Allocate transaction price to performance obligations and (5) Recognise revenue when performance obligation is satisfied. The core principle is that a company should recognise revenue to depict the transfer of promised goods or services to the customer in an amount that reflects the consideration to which the company expects to be entitled in exchange for those goods or services. It moves away from a revenue recognition model of transfer of risks and rewards approach to transfer of control approach.

HKFRS 15 provides specific guidance on capitalisation of contract cost and licence arrangements. It also includes a cohesive set of disclosure requirements about the nature, amount, timing and uncertainty of revenue and cash flows arising from the entity's contracts with customers.

HKFRS 15 replaces the previous revenue standards: HKAS 18 Revenue and HKAS 11 Construction Contracts, and the related Interpretations on revenue recognition: IFRIC/HK(IFRIC) 13 Customer Loyalty Programmes, IFRIC/HK(IFRIC) 15 Agreements for the Construction of Real Estate, IFRIC/HK(IFRIC) 18 Transfers of Assets from Customers and SIC-31 Revenue – Barter Transactions Involving Advertising Services.

The directors of the Company anticipate that the application of HKFRS 15 in the future may affect the amounts reported and related disclosures. However, it is not practicable to provide a reasonable estimate of the effect of HKFRS 15 until the Group performs a detailed review.

#### (a) Basis of preparation (Continued)

(ii) New or revised standards, interpretations and amendments that are not yet effective for the year ended 31st December 2016 but relevant to the Group and have not been early adopted by the Group (Continued)

#### HKFRS 16 "Leases"

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

The accounting for lessors will not significantly change.

The standard will affect primarily the accounting for the Group's operating leases. As at the reporting date, the Group has non-cancellable operating lease commitments of HK\$515.6 million as disclosed in Note 39(d). However, the Group has not yet determined to what extent these commitments will result in the recognition of an asset and a liability for future payments and how this will affect the Group's profit and classification of cash flows.

Some of the commitments may be covered by the exception for short-term and low value leases and some commitments may relate to arrangements that will not qualify as leases under HKFRS 16.

The new standard is mandatory for financial years commencing on or after 1st January 2019. At this stage, the Group does not intend to adopt the standard before its effective date.

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

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

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

#### (b) 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 acquisition date. Subsequent changes to the fair value of the contingent consideration that is deemed to be an asset or liability is recognised in accordance with HKAS 39 in the income statement. 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 income statement.

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.

#### (b) Consolidation (Continued)

#### (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 income statement. The fair value is the initial carrying amount for the purposes of subsequently accounting for the retained interest as an associate, joint venture or financial asset. In addition, any amounts previously recognised in the other comprehensive income in respect of that entity are accounted for as if the Group had directly disposed of the related assets or liabilities. This may mean that amounts previously recognised in the other comprehensive income are reclassified to the income statement.

#### (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 income statement where appropriate.

The Group's share of its associates' post-acquisition profits or losses is recognised in the income statement, 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 adjacent to "share of results of associates" in the income statement.

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 income statement.

#### (b) Consolidation (Continued)

#### (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 income statement where appropriate.

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

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

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 income statement.

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.

#### (c) 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.

#### (d) Foreign currency translation

#### (i) Functional and presentation currency

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

#### (ii) Transactions and balances

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

Changes in the fair value of monetary securities denominated in foreign currency classified as available-forsale financial assets are analysed between translation differences resulting from changes in the amortised cost of the securities, and other changes in the carrying amount of the securities. Translation differences resulting from changes in the amortised cost of the securities are recognised in the income statement, and other changes in carrying amount are recognised in the other comprehensive income.

Translation differences on non-monetary financial assets and liabilities are reported as part of the fair value gain or loss. Translation differences on non-monetary financial assets and liabilities such as equities held at fair value through profit or loss are recognised in the income statement as part of the fair value gain or loss. Translation differences on non-monetary financial assets such as equities classified as available-for-sale are included in the 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 the other comprehensive income.

On consolidation, exchange differences arising from the translation of the net investment in foreign operations, are taken to the other comprehensive income. When a foreign operation is sold, exchange differences that were recorded in equity are recognised in the income statement 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.

## (e) 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 income statement.

## (f) 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 income statement.

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 statement of financial position date.

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

## (g) Deferred overburden removal costs

Mining structures include deferred stripping costs and mining related property, plant and equipment. When proven and probable 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 proven and probable coal reserves in the depletion base, or based on the useful lives of respective items of property, plant and equipment, whichever is appropriate.

## (h) 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 on Properties (2012 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 income statement during the financial period in which they are incurred.

Changes in fair values are recognised in the income statement.

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 income statement.

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 income statement.

### (i) Leases

## (i) Operating leases

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

## (ii) Finance leases

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

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

#### (j) Intangible assets

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

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

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

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

Goodwill that have an indefinite useful life are not subject to amortisation, which 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.

#### (I) Financial assets

The Group classifies its financial assets in the following categories: financial assets at fair value through profit or loss, loans and receivables and available-for-sale financial assets. The classification depends on the purpose for which the financial assets were acquired. Management determines the classification of its financial assets at initial recognition.

#### (i) Financial assets at fair value through profit or loss

Financial assets at fair value through profit or loss are financial assets held for trading and those designated at fair value through profit or loss at inception. A financial asset is classified in this category if acquired principally for the purpose of selling in the short term or if so designated by management. Assets in this category are classified as current assets.

## (ii) Loans and receivables

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

## (iii) Available-for-sale financial assets

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

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

Regular purchases and sales of financial assets are recognised on trade-date – the date on which the Group commits to purchase or sell the asset. Investments are initially recognised at fair value plus transaction costs for all financial assets not carried at fair value through profit or loss. Financial assets carried at fair value through profit or loss are initially recognised at fair value and transaction costs are expensed in the income statement. Financial assets are derecognised when the rights to receive cash flows from the investments have expired or have been transferred and the Group has transferred substantially all risks and rewards of ownership. Available-for-sale financial assets and financial assets at fair value through profit or loss are subsequently carried at fair value. Available-for-sale equity investments that do not have a quoted market price in an active market and whose fair value cannot be reliably measured are stated at cost less any identified impairment losses at each statement of financial position date subsequent to initial recognition. Loans and receivables are carried at amortised cost using effective interest method.

Gains and losses arising from changes in the fair value of the "financial assets at fair value through profit or loss" category are presented in the income statement within "other (losses)/gains, net", in the period in which they arise. Dividend income from financial assets at fair value through profit or loss is recognised in the income statement as part of "other (losses)/gains, net" when the Group's right to receive payment is established.

Changes in the fair value of monetary securities denominated in a foreign currency and classified as available-forsale are analysed between translation differences resulting from changes in amortised cost of the securities and other changes in the carrying amount of the securities. Translation differences resulting from changes in the amortised cost of the securities are recognised in the income statement, and other changes in the carrying amount are recognised in the other comprehensive income.

#### (I) Financial assets (Continued)

When available-for-sale financial assets are sold or impaired, the accumulated fair value adjustments recognised in equity are included in the income statement as gains and losses on disposal of available-for-sale financial assets under "other (losses)/gains, net".

Interest on available-for-sale financial assets calculated using the effective interest method is recognised in the income statement as part of "other (losses)/gains, net". Dividends on available-for-sale equity instruments are recognised in the income statement as part of "other (losses)/gains, net" when the Group's right to receive payments is established.

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

The Group may choose to reclassify a non-derivative trading financial asset out of the financial assets at fair value through profit or loss category if the financial asset is no longer held for the purpose of selling it in the near term. Financial assets other than loans and receivables are permitted to be reclassified out of the financial assets at fair value through profit or loss category only in rare circumstances arising from a single event that is unusual and highly unlikely to recur in the near term.

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

#### (m) 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).

The Group documents at the inception of the transaction the relationship between hedging instruments and hedged items, as well as its risk management objectives and strategy for undertaking various hedging transactions. The Group also documents its assessment, both at hedge inception and on an ongoing basis, of whether the derivatives that are used in hedging transactions are highly effective in offsetting changes in fair values or cash flows of hedged items.

The fair values of the derivative instruments used for hedging purposes are disclosed in Note 34. Movements on the hedging reserve in shareholders' equity are shown in Note 37. 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, and as a current asset or liability when the remaining maturity of the hedged item is less than 12 months.

#### Cash flow hedge

The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges is recognised in the other comprehensive income. The gain or loss relating to the ineffective portion is recognised immediately in the income statement within "other (losses)/gains, net".

### (m) Derivative financial instruments and hedging activities (Continued)

Amounts accumulated in equity are recycled in the income statement in the periods when the hedged item affects profit or loss (for example, when the forecast sale that is hedged takes place). The gain or loss relating to the effective portion of changes in the fair value of derivatives is recognised in the income statement within "interest expense". The gain or loss relating to the ineffective portion is recognised in the income statement within "other (losses)/gains, net". However, when the forecast transaction that is hedged results in the recognition of a non-financial asset (for example, inventory or property, plant and equipment), the gains and losses previously deferred in equity are transferred from equity and included in the initial measurement of the cost of the asset. The deferred amounts are ultimately recognised in cost of goods sold in case of inventory or in depreciation in the case of property, plant and equipment.

When a hedging instrument expires or is sold, or when a hedge no longer meets the criteria for hedge accounting, any cumulative gain or loss existing in equity at that time remains in equity and is recognised when the forecast transaction is ultimately recognised in the income statement. When a forecast transaction is no longer expected to occur, the cumulative gain or loss that was reported in equity is immediately transferred to the income statement within "other (losses)/gains, net".

#### (n) 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.

## (o) 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 estimated reliably, contract revenue is recognised only to the extent of contract costs incurred that are likely to be recoverable.

When the outcome of a construction contract can be estimated reliably and it is probable that the contract will be profitable, contract revenue is recognised over the period of the contract. 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.

The Group uses the "percentage of completion method" to determine the appropriate amount to recognise in a given period. The stage of completion is measured by reference to the contract costs incurred up to the statement of financial position date as a percentage of total estimated costs for each contract. Costs incurred in the year in connection with future activity on a contract are excluded from contract costs in determining the stage of completion.

## (p) Trade and other receivables

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

Trade and other receivables are recognised initially at fair value and subsequently measured at amortised cost using effective interest method, less provision for impairment.

#### (q) Impairment of financial assets

## (i) Assets carried at amortised cost

The Group assesses at the end of each reporting period whether there is objective evidence that a financial asset or group of financial assets is impaired. A financial asset or a group of financial assets is impaired and impairment losses are incurred only if there is objective evidence of impairment as a result of one or more events that occurred after the initial recognition of the asset (a "loss event") and that loss event (or events) has an impact on the estimated future cash flows of the financial asset or group of financial assets that can be reliably estimated.

The criteria that the Group uses to determine that there is objective evidence of an impairment loss include:

- Significant financial difficulty of the issuer or obligor;
- A breach of contract, such as a default or delinquency in interest or principal payments;
- The Group, for economic or legal reasons relating to the borrower's financial difficulty, granting to the borrower a concession that the lender would not otherwise consider;
- It becomes probable that the borrower will enter bankruptcy or other financial reorganisation;
- The disappearance of an active market for that financial asset because of financial difficulties; or
- Observable data indicating that there is a measurable decrease in the estimated future cash flows from a
  portfolio of financial assets since the initial recognition of those assets, although the decrease cannot yet
  be identified with the individual financial assets in the portfolio, including:
  - (i) adverse changes in the payment status of borrowers in the portfolio;
  - (ii) national or local economic conditions that correlate with defaults on the assets in the portfolio.

The Group first assesses whether objective evidence of impairment exists.

For loans and receivables category, the amount of the loss is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows (excluding future credit losses that have not been incurred) discounted at the financial asset's original effective interest rate. The carrying amount of the asset is reduced and the amount of the loss is recognised in the income statement. If a loan has a variable interest rate, the discount rate for measuring any impairment loss is the current effective interest rate determined under the contract. As a practical expedient, the Group may measure impairment on the basis of an instrument's fair value using an observable market price.

If, in a subsequent period, the amount of the impairment loss decreases and the decrease can be related objectively to an event occurring after the impairment was recognised (such as an improvement in the debtor's credit rating), the reversal of the previously recognised impairment loss is recognised in the income statement.

## (ii) Assets classified as available-for-sale

The Group assesses at the end of each reporting period whether there is objective evidence that a financial asset or a group of financial assets is impaired. For debt securities, the Group uses the criteria refer to (i) above. In the case of equity investments classified as available-for-sale, a significant or prolonged decline in the fair value of the security below its cost is also evidence that the assets are impaired. If any such evidence exists for available-for-sale financial assets, the cumulative loss – measured as the difference between the acquisition cost and the current fair value, less any impairment loss on that financial asset previously recognised in the income statement – is removed from equity and recognised in the income statement. Impairment losses recognised in the income statement on equity instruments are not reversed through the income statement. If, in a subsequent period, the fair value of a debt instrument classified as available for sale increase can be objectively related to an event occurring after the impairment loss was recognised in the income statement, the impairment loss is reversed through the income statement.

#### (r) 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.

#### (s) Trade payables and customers' deposits

Trade payables and customers' deposits are recognised initially at fair value and subsequently measured at amortised cost using the effective interest method.

## (t) 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 income statement 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 drawn down, the fee is capitalised as a pre-payment for liquidity services and amortised over the period of the facility to which it relates.

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

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

#### (u) Current and deferred taxation

The tax expense for the year comprises current and deferred tax. Tax is recognised in the income statement, 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 statement of financial position date 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.

## (v) Revenue and income recognition

- (i) Gas sales based on gas consumption derived from meter readings.
- (ii) Water sales based on water consumption derived from meter readings.
- (iii) Liquefied petroleum gas sales upon completion of the gas filling transaction.
- (iv) Equipment sales 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 upon completion of delivery and title has passed.
- (vi) Maintenance and service charges 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 under percentage of completion method.

#### (w) Employee benefits

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

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

#### (i) Defined contribution retirement schemes

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

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

#### (w) Employee benefits (Continued)

## (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 income statement 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 income statement.

#### (x) 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 income statement when occurred.

# 3 Financial risk management Financial risk factors

The Group's activities expose it to a variety of financial risks: market risk (including foreign exchange risk, price risk and cash flow and fair value interest rate risk), credit risk and liquidity risk. The Group's overall risk management programme focuses on the unpredictability of financial markets and seeks to minimise potential adverse effects on the Group's financial performance. The Group uses derivative financial instruments to manage and reduce certain risk exposures.

Risk management is carried out by treasury and investment departments (Group Treasury) under policies approved by the Treasury Committee, comprising all the executive directors of the Company. Group Treasury identifies, evaluates and manages financial risks in close co-operation with the Group's operating units. The Treasury Committee provides written principles for overall risk management, as well as written policies covering specific areas, such as foreign exchange risk, interest-rate risk, credit risk, use of derivative financial instruments and non-derivative financial instruments, and investment of excess liquidity.

#### (a) Market risk

#### (i) Foreign exchange risk

The Group operates in Hong Kong, mainland China and Thailand and is exposed to foreign exchange risk arising from various currency exposures, primarily with respect to the United States dollars ("USD"), Renminbi ("RMB") and Thailand Baht ("THB"). Foreign exchange risk arises from future commercial transactions and recognised assets and liabilities.

To manage the foreign exchange risk arising from future commercial transactions and recognised assets and liabilities, the Group uses forward contracts. Foreign exchange risk arises when future commercial transactions or recognised assets or liabilities are denominated in a currency that is not the entity's functional currency. The Group has also entered into cross currency swap contracts to manage its exposure to foreign exchange risk from recognised liabilities. Group Treasury is responsible for managing the net position in each foreign currency by using external forward currency contracts and other suitable financial instruments.

Transactions denominated in the USD mainly arise from the Group's operation in Hong Kong. Pursuant to Hong Kong's Linked Exchange Rate System under which HKD is pegged to the USD, management considers there are no significant foreign exchange risks with respect to the USD. Furthermore, there are no significant transactions and recognised assets and liabilities of the Thailand business in currency other than THB. Management considers there is no significant foreign exchange risk from the Thailand business.

At 31st December 2016, if the RMB had weakened/strengthened by 2 per cent (2015: 2 per cent) against HKD with all other variables held constant, pre-tax profit for the year would have been HK\$18.5 million (2015: HK\$172.2 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 available-for-sale financial assets and financial assets at fair value through profit or loss of HK\$1,175.1 million (2015: HK\$994.1 million) and HK\$20.5 million (2015: HK\$12.1 million) respectively.

The Group also held unlisted equity investments which are classified as available-for-sale financial assets of HK\$39.1 million (2015: HK\$219.5 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, MSCI AC Asia Pacific excluding Japan ("MSCI Asia Pacific ex-Japan") Index, Euro Stoxx 50 Price Index and Straits Times 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 equity. The analysis is based on the assumption that the indexes had increased/decreased by 10 per cent with all other variables held constant and all the Group's equity securities moved according to the historical correlation with the indexes.

	Impact on p	ore-tax profit	Impact on equity	
	2016 HK\$'M	2015 HK\$'M	2016 HK\$'M	2015 HK\$'M
Hang Seng Index	2.0	1.2	94.3	91.3
S&P 500 Index	0.3	-	4.9	2.5
MSCI Asia Pacific ex-Japan Index	-	-	-	19.2
Euro Stoxx 50 Price Index	-	-	2.9	3.5
Straits Times Index	-	-	3.0	-

Pre-tax profit for the year would increase/decrease as a result of gains/losses on equity securities classified as at fair value through profit or loss. Equity would increase/decrease as a result of gains/losses on equity securities classified as available-for-sale 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\$11,457.2 million (2015: HK\$13,252.8 million). The Group's interest bearing liabilities mainly comprises floating rate borrowings of HK\$9,970.5 million (2015: HK\$12,654.9 million), fixed rate borrowings of HK\$23,277.4 million (2015: HK\$20,420.8 million) and floating rate deposits received from customers of HK\$1,302.8 million (2015: HK\$1,282.9 million).

At 31st December 2016, if market interest rates on bank deposits had been 100 basis points (2015: 100 basis points) higher/lower with all other variables held constant, pre-tax profit for the year would have been HK\$129.6 million (2015: HK\$152.6 million) higher/lower, mainly as a result of higher/lower interest income on floating rate bank deposits.

At 31st December 2016, if market interest rates on borrowings and customers' deposits had been 100 basis points (2015: 100 basis points) higher/lower with all other variables held constant, pre-tax profit for the year would have been HK\$134.3 million (2015: HK\$170.6 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:

	2016 HK\$'M	2015 HK\$'M
Cash and bank deposits	11,457.2	13,252.8
Debt securities and derivative financial instruments	1,093.2	581.7
Trade receivables	3,497.5	3,513.9
Other receivables	1,572.7	2,140.6
Loan and other receivables from joint ventures	900.1	1,059.2
Loan and other receivables from associates	871.7	887.5
Loan and other receivables from non-controlling interests	65.4	122.6
Other non-current assets	2,860.4	2,371.8

The Group has no significant concentrations of credit risk. The Group has credit policy to handle credit risk of customers. There is no significant concentration of sales to any individual customer. The top five largest customers account for less than 30 per cent of the total revenues. Furthermore, security deposits are required for gas customers. This also applies to the PRC joint ventures where there is no significant concentration of sales to any individual customer. Other non-current assets mainly represent aviation fuel facility construction receivable. Management considered that counter party default risk is low and there is no history of default in repayment. Debt securities, derivative financial instruments 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 subsidiaries, joint ventures and associates through exercising control or influence over their financial and operating policy decisions and reviewing their financial positions on a regular basis.

The credit quality of financial assets that are neither past due nor impaired can be assessed by reference to external credit ratings (if available) or to historical information about counterparty default rates is as follows:

	2016	2015
	%	%
Cash and bank deposits		
AA	0.7	0.1
A	86.5	73.7
BBB	8.8	20.8
BB	0.1	0.5
Unrated	3.9	4.9
	100.0	100.0
Debt securities and derivative financial instruments		
AA	4.7	6.9
A	57.4	60.4
BBB	14.1	7.1
Unrated	23.8	25.6
	100.0	100.0

# 3 Financial risk management (Continued) Financial risk factors (Continued)

## (b) Credit risk (Continued)

Credit ratings are quoted from Bloomberg.

Credit quality of loan and other receivables from associates, loan and other receivables from joint ventures, other non-current assets and trade and other receivables are disclosed in Notes 21, 22, 25 and 27 respectively to the consolidated financial statements. None of the financial assets that are fully performing has been renegotiated during the year.

## (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 our 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 statement of financial position date to the contractual maturity date. The amounts disclosed in the table are the contractual undiscounted cash flows. 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 2016				
Trade and other payables	10,020.4	-	-	-
Amounts due to joint ventures	718.9	-	-	-
Loan and other payables to non-controlling shareholders	186.3	-	-	_
Borrowings	7,134.3	10,326.3	8,946.8	14,097.2
Derivative financial instruments	-	-	82.7	459.5
At 31st December 2015				
Trade and other payables	9,761.2	-	-	-
Amounts due to joint ventures	572.3	-	-	-
Loan and other payables to non-controlling shareholders	181.4	_	21.9	_
Borrowings	10,799.2	2,660.0	13,740.9	13,387.9
Derivative financial instruments	41.7	_	-	654.5

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 divided by shareholders' funds plus perpetual capital securities and net borrowing. Net borrowing is calculated as total borrowings, less time deposits, cash and bank deposits as shown in the consolidated statement of financial position.

The gearing ratios at 31st December 2016 and 2015 are as follows:

	2016 HK\$'M	2015 HK\$'M
Total borrowings	(33,247.9)	(33,075.7)
Less: Time deposits, cash and bank deposits	11,457.2	13,252.8
Net borrowing	(21,790.7)	(19,822.9)
Shareholders' funds	(53,932.2)	(52,841.4)
Perpetual capital securities	(2,353.8)	(2,353.8)
	(78,076.7)	(75,018.1)
Gearing ratio	28%	26%

## 3 Financial risk management (Continued)

## 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).

The following table presents the Group's assets that are measured at fair value at 31st December 2016 and 2015. See Note 17 for disclosures of the investment properties that are measured at fair value.

	Lev	vel 1	Lev	vel 2	Lev	vel 3	Тс	otal
At 31st December HK\$'M	2016	2015	2016	2015	2016	2015	2016	2015
Assets								
Financial assets at fair value through profit or loss								
<ul> <li>Debt securities</li> </ul>	-	-	46.8	-	-	-	46.8	-
<ul> <li>Equity securities</li> </ul>	20.5	12.1	-	-	-	-	20.5	12.1
Derivative financial instruments	_	_	344.6	161.5	248.8	_	593.4	161.5
Available-for-sale financial assets								
<ul> <li>Debt securities</li> </ul>	453.0	420.2	-	-	-	-	453.0	420.2
<ul> <li>Equity investment</li> </ul>	1,175.1	994.1	39.1	219.5	2,808.6	2,416.2	4,022.8	3,629.8
Total assets	1,648.6	1,426.4	430.5	381.0	3,057.4	2,416.2	5,136.5	4,223.6
Liabilities								
Other payables	-	_	-	_	154.0	176.7	154.0	176.7
Derivative financial instruments	_	_	542.2	696.1	_	_	542.2	696.1
Total liabilities	-	_	542.2	696.1	154.0	176.7	696.2	872.8

There are no other 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.

## 3 Financial risk management (Continued)

## Fair value estimation (Continued)

Specific valuation techniques used to value financial instruments includes:

- 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 forward exchange rates and yield curves.
- The fair value of interest rate swaps is calculated as the present value of the estimated future cash flows based on observable yield curves.
- The fair value of forward foreign exchange contracts is determined using forward exchange rates at the end of the reporting year, with the resulting value discounted back to present value.

If one or more of the significant inputs is not based on observable market data, the instrument is included in level 3.

- Financial assets composed of available-for-sale financial assets and derivative financial instruments in level 3, which represented an unlisted equity investment and its related derivative respectively. In respect of the unlisted equity investment, the fair value is determined based on the discounted cash flow model. The significant unobservable inputs include discount rate of 11.6 per cent, sales price, sales volume and expected free cash flows of the investee. The higher the discount rate, the lower the fair value. The higher the sales price, sales volume or expected free cash flows of the investee, the higher the fair value.
- 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 higher the volatility, the higher the fair 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 4.0 per cent and the rate of probability on the outflow of resources will be required to settle the obligation. The higher the discount rate, the lower the fair value. The higher the rate of probability, the higher the fair value.

The following table presents the changes in level 3 instruments for the year ended 31st December 2016 and 2015.

	Financia	al liability	Financia	al assets
	2016 2015 HK\$'M HK\$'M		2016 HK\$'M	2015 HK\$'M
At 1st January	176.7	-	2,416.2	-
Acquisition	-	176.7	739.0	3,151.7
Change in fair value	(18.7)	-	108.0	(598.2)
Exchange difference	(4.0)	-	(205.8)	(137.3)
At 31st December	154.0	176.7	3,057.4	2,416.2

The carrying amounts of financial assets and financial liabilities recorded at amortised cost in the financial statements approximate their fair values.

## 4 Critical accounting estimates and judgements

Estimates and judgements are continually evaluated by management and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances.

The Group makes estimates and assumptions concerning the future. The resulting accounting estimates will, by definition, seldom equal the related actual results. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are discussed below.

#### (a) Estimated impairment of assets

The Group tests annually whether goodwill has suffered any impairment, in accordance with the accounting policy stated in the consolidated financial statements Note 2(k). Other assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of the assets exceeds its recoverable amount. The recoverable amounts of cash-generating units have been determined based on the higher of fair value less cost of disposal and value-in-use calculations. These value-in-use calculations require the use of estimates which includes the following key assumptions:

#### **Discount rate**

Discounts rates reflect the current market assessments of the time value of money and are based on the estimated cost of capital. The discount rates are calculated based on the discount rate applicable to each cash generating unit adjusted for the relevant impact and timing of tax cash flows. The discount rates used ranged from 8.5 per cent to 10 per cent.

#### Sales price and sales volume

The Group's management determines the budgeted sales price based on his expectation on the future trend of the prices of the products. The sales volume was based on the production capacity and/or the management's expectation on market demand.

In respect of the Group's mining and oil properties in mainland China and Thailand respectively, the Group tested them for impairment by estimated the value-in-use of these projects as at 31st December 2016. The key assumptions adopted in the test were sales price, sales volume and discount rate of 10 per cent. Based on the result of the test, no impairment of these projects as at 31st December 2016 is recognised. Assuming sales price 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 material loss to the Group.

## (b) Useful lives of 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.

## 4 Critical accounting estimates and judgements (Continued)

#### (c) Estimate of fair value of investment property

The valuation of investment properties (including those held by an associate) are performed in accordance with the "The HKIS Valuation Standards on Properties (2012 Edition)" published by the Hong Kong Institute of Surveyors 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 statement of financial position date.

The principal assumptions underlying management's estimation of fair value are those related to the capitalisation rate and market rentals. These valuations are regularly compared to actual market yield data, and actual transactions by the Group and those reported by the market.

### (d) Estimate of gas and water consumption

Revenue for gas and water supply may include an estimation of the gas and water supplied to the customers of which actual meter reading is not available. The estimation is done mainly based on the past consumption records and recent consumption pattern of individual 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) Estimate of gas connection income

The Group recognises its gas connection income with reference to the stage of completion of individual contracting work of gas connection facilities. Stage of completion is measured by reference to work performed up to the end of the reporting period. 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 is inherently uncertain, subject to the outcome of finalisation with the sub-contractors.

## 4 Critical accounting estimates and judgements (Continued)

#### (f) Reserve estimates

Reserves are estimates of the amount of product that can be economically and legally extracted from the Group's mining and oil properties for coal mines in mainland China and oil concession in Thailand. In order to calculate reserves, estimates and assumptions are required about a range of geological, technical and economic factors, including quantities, grades, production techniques, recovery rates, production costs, transport costs, commodity demand and commodity prices.

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 income statement 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 and impairment assessment of equity investments classified as available-for-sale

The fair value of available-for-sale 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 statement of financial position date. The key assumptions adopted on projected cash flows are based on management's best estimates.

A significant or prolonged decline in the fair value of the equity investments classified as available-for-sale below its cost is also objective evidence of impairment. In assessing whether it is significant, the decline in fair value is evaluated against the original cost of the asset at initial recognition. In assessing whether it is prolonged, the decline is evaluated against the continuous period in which the fair value of the asset has been below its original cost at initial recognition.

## 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:

	2016 HK\$'M	2015 HK\$'M
Gas sales before fuel cost adjustment	19,553.5	20,748.2
Fuel cost adjustment	438.8	878.8
Gas sales after fuel cost adjustment	19,992.3	21,627.0
Gas connection income	2,831.1	2,897.5
Equipment sales and maintenance services	2,514.4	2,141.0
Water and related sales	1,233.3	1,260.9
Oil and coal related sales	834.2	643.0
Other sales	1,151.8	1,021.9
	28,557.1	29,591.3

The chief operating decision-maker has been identified as the executive committee members (the "ECM") of the Company. The ECM reviews the Group's internal reporting in order to assess performance and allocate resources. The ECM considers the business from both a product and geographical perspective. From a product perspective, management assesses the performance of (a) gas, water and related businesses; (b) New Energy and (c) property business. Gas, water and related businesses is further evaluated on a geographic basis (Hong Kong and Mainland China).

The ECM assesses the performance of the operating segments based on a measure of adjusted profit before interest, tax, depreciation and amortisation (the "adjusted EBITDA"). Other information provided, except as noted below, to the ECM is measured in a manner consistent with that in the financial statements.

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

2016	Gas, water and r	elated businesses	New Energy	Property	Other segments	Total
HK\$'M	Hong Kong	Mainland China				
Revenue	9,042.6	16,683.7	2,072.8	63.8	694.2	28,557.1
Adjusted EBITDA	4,512.8	4,618.0	636.8	40.3	176.2	9,984.1
Depreciation and amortisation	(710.8)	(1,055.3)	(370.7)	-	(68.0)	(2,204.8)
Unallocated expenses						(609.4)
						7,169.9
Other losses, net						(29.5)
Interest expense						(1,207.4)
Share of results of associates	-	735.3	(0.8)	1,710.3	2.6	2,447.4
Share of results of joint ventures	-	1,455.5	1.1	9.2	(0.5)	1,465.3
Profit before taxation						9,845.7
Taxation						(1,575.9)
Profit for the year						8,269.8

# 5 Segment information (Continued)

Share of results of associates includes HK\$1,188.0 million (2015: HK\$1,167.6 million) being the Group's share of change in valuation of investment properties at the International Finance Centre (the "IFC") complex for the year.

2015	Gas, water and r	elated businesses	New Energy	Property	Other segments	Total
HK\$'M	Hong Kong	Mainland China				
Revenue	8,845.6	17,970.9	2,126.6	59.7	588.5	29,591.3
Adjusted EBITDA	4,258.9	4,505.1	703.2	36.7	151.0	9,654.9
Depreciation and amortisation	(681.7)	(984.1)	(334.9)	_	(58.4)	(2,059.1)
Unallocated expenses						(606.4)
					_	6,989.4
Other gains, net						101.4
Interest expense						(1,128.6)
Share of results of associates	_	544.9	(1.2)	1,682.9	1.6	2,228.2
Share of results of joint ventures	_	1,707.0	1.4	7.3	(0.1)	1,715.6
Profit before taxation					-	9,906.0
Taxation						(1,726.7)
Profit for the year						8,179.3

The segment assets at 31st December 2016 and 2015 are as follows:

2016	Gas, water and related businesses		New Energy	Property	Other segments	Total
HK\$'M	Hong Kong	Mainland China				
Segment assets	16,259.1	56,276.4	16,093.0	12,706.2	3,254.2	104,588.9
Unallocated assets:						
Available-for-sale financial assets						4,967.1
Financial assets at fair value through profit or loss						67.3
Time deposits, cash and bank balances excluded from segment assets						5,884.6
Others (Note)						1,235.5
Total assets	16,259.1	56,276.4	16,093.0	12,706.2	3,254.2	116,743.4

## Note

Other unallocated assets mainly include other receivables other than those included under segment assets, derivative financial instruments and loan and other receivables from non-controlling shareholders.

2015	Gas, water and r	elated businesses	New Energy	Property	Other segments	Total
HK\$'M	Hong Kong Mainland China					
Segment assets	16,055.6	57,487.8	15,431.1	11,526.0	2,575.7	103,076.2
Unallocated assets:						
Available-for-sale financial assets						4,567.0
Financial assets at fair value through profit or loss						12.1
Time deposits, cash and bank balances excluded from segment						
assets						6,541.8
Others						1,366.2
Total assets	16,055.6	57,487.8	15,431.1	11,526.0	2,575.7	115,563.3

## 5 Segment information (Continued)

The Company is domiciled in Hong Kong. The Group's revenue from external customers in Hong Kong for the year ended 31st December 2016 is HK\$10,328.9 million (2015: HK\$10,059.0 million), and the revenue from external customers in other geographical locations is HK\$18,228.2 million (2015: HK\$19,532.3 million).

At 31st December 2016, the total of non-current assets other than financial instruments located in Hong Kong and other geographical locations are HK\$25,755.0 million and HK\$61,484.1 million (2015: HK\$23,828.1 million and HK\$61,002.0 million) respectively.

For the years ended 31st December 2016 and 2015, the percentage of revenues attributable to the Group's five largest customers is less than 30 per cent.

## 6 Total operating expenses

	2016 HK\$'M	2015 HK\$'M
Stores and materials used	12,709.6	14,097.9
Manpower costs (Note 11)	2,955.2	2,844.3
Depreciation and amortisation	2,223.1	2,075.3
Other operating items	3,499.3	3,584.4
	21,387.2	22,601.9

# 7 Other (losses)/gains, net

	2016 HK\$'M	2015 HK\$'M
Net investment gains (Note 8)	208.5	276.6
Fair value gain on investment property (Note 17)	14.1	26.8
Gain on disposal of an associate	-	30.8
Fair value gain on derivative	248.8	-
Project research and development costs	(49.3)	(51.7)
Provision for other assets	(206.6)	(168.6)
Provision for an investment in an associate	(250.0)	-
Ineffective portion on cash flow hedges	5.0	(9.4)
Others	-	(3.1)
	(29.5)	101.4

# 8 Net investment gains

		2016 HK\$'M	2015 HK\$'M
(a)	Interest income		
	Bank deposits	137.0	257.4
	Listed available-for-sale financial assets	8.5	10.5
	Loans to associates and joint ventures	49.1	57.8
	Others	15.3	18.8
		209.9	344.5
(b)	Net realised and unrealised gains/(losses) and interest income on financial assets at fair value through profit or loss and derivative financial instruments		
	Listed securities	1.8	159.6
	Unlisted securities	170.1	10.6
	Exchange differences	(1.3)	0.2
		170.6	170.4
(c)	Net realised gains/(losses) on available-for-sale financial assets		
	Listed securities	(40.0)	95.3
	Unlisted securities	51.2	-
	Exchange differences	2.1	(1.4)
		13.3	93.9
(d)	Dividend income		
	Listed available-for-sale financial assets	46.1	52.8
	Unlisted available-for-sale financial assets	105.0	130.9
	Listed financial assets at fair value through profit or loss	0.4	0.2
		151.5	183.9
(e)	Other investment and exchange losses	(336.8)	(516.1)
		208.5	276.6

# 9 Interest expense

	2016 HK\$'M	2015 HK\$'M
Interest on bank loans and overdrafts wholly repayable within five years	558.0	514.5
Interest on guaranteed notes wholly repayable within five years	435.7	449.2
Interest on guaranteed notes not wholly repayable within five years	413.5	380.9
	1,407.2	1,344.6
Less: amount capitalised	(199.8)	(216.0)
	1,207.4	1,128.6

The interest expense is capitalised at average rates from 3.70 per cent to 6.37 per cent (2015: 3.30 per cent to 6.79 per cent) per annum.

# 10 Profit before taxation

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

	2016 HK\$'M	2015 HK\$'M
Cost of inventories sold	14,857.3	16,025.5
Depreciation and amortisation	2,223.1	2,075.3
Loss on disposal/write off of property, plant and equipment	30.9	87.2
Gain on disposal of leasehold land	(45.2)	(9.8)
Impairment loss of trade receivables	13.7	61.0
Impairment loss of available-for-sale financial assets	534.3	38.6
Operating lease rentals		
<ul> <li>land and buildings</li> </ul>	113.9	110.0
<ul> <li>plant and equipment</li> </ul>	12.0	11.9
Rental income from investment property		
– gross rental income	(63.7)	(59.6)
- outgoing expenses	23.1	22.7
Auditors' remuneration	25.7	23.0
Net loss on residential maintenance (Note)	54.9	46.4
Note		
Analysis of net loss on residential maintenance:		
Residential maintenance revenue	(204.1)	(201.8)
Less expenses:		
Manpower costs	146.7	136.4
Other operating and administrative expenses	112.3	111.8
Net loss	54.9	46.4

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

# 11 Manpower costs

## (a) Staff costs

	2016 HK\$'M	2015 HK\$'M
Salaries and wages	2,559.3	2,470.2
Pension costs – defined contribution retirement schemes	377.1	356.1
Pension costs – defined benefit retirement scheme (Note 24)	18.8	18.0
	2,955.2	2,844.3

## (b) Five highest paid individuals

The five individuals whose emoluments were the highest in the Group for the year include two (2015: two) directors whose emoluments are reflected in the analysis shown in Note 12. Details of the emoluments payable to the remaining three (2015: three) individuals during the year are as follows:

	2016 HK\$'M	2015 HK\$'M
Fee, salaries, allowances and benefits in kind	8.7	8.7
Performance bonus	12.2	12.2
Contributions to retirement scheme	3.0	3.0
	23.9	23.9

Number of individuals whose emoluments fell within:

Emoluments band (HK\$'M)	2016	2015
9.0 – 10.0	1	1
8.0 - 9.0	-	1
7.0 – 8.0	1	-
6.0 - 7.0	1	1

## (c) Emoluments of senior management

Senior management for the years ended 31st December 2016 and 2015 were all executive directors of the Company whose emoluments have been shown in Note 12.

# 12 Benefits and interests of directors

## (a) Directors' emoluments

	Emoluments paid or receivable in respect of a person's services as a director, whether of the Company or its subsidiary undertaking					
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
2016						
Alfred Chan Wing Kin (Managing Director) (Note (i))	0.4	6.0	26.0	5.4	_	37.8
Peter Wong Wai Yee (Note (i))	0.4	4.4	7.9	2.3	-	15.0
Lee Shau Kee	0.6	0.2	-	-	-	0.8
Leung Hay Man	0.5	-	-	-	-	0.5
Colin Lam Ko Yin	0.2	0.1	-	-	-	0.3
Lee Ka Kit	0.2	-	-	-	-	0.2
Lee Ka Shing	0.2	-	-	-	-	0.2
David Li Kwok Po	0.6	0.1	-	-	-	0.7
Poon Chung Kwong	0.6	-	-	-	-	0.6
	3.7	10.8	33.9	7.7	-	56.1

## 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\$5.4 million (2015: HK\$0.2 million and HK\$5.4 million) respectively, and no share-based payments were received during the year and 2015.

# 12 Benefits and interests of directors (Continued)

## (a) Directors' emoluments (Continued)

	a pers	ments paid or on's services a ompany or its				
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
2015						
Alfred Chan Wing Kin (Managing Director) (Note (i))	0.4	6.0	26.1	5.3	_	37.8
Peter Wong Wai Yee (Note (i))	0.4	4.4	7.5	2.3	-	14.6
Lee Shau Kee	0.6	0.2	-	-	-	0.8
Leung Hay Man	0.5	-	-	-	-	0.5
Colin Lam Ko Yin	0.2	0.1	-	-	-	0.3
Lee Ka Kit	0.2	-	-	-	-	0.2
Lee Ka Shing	0.2	-	-	-	-	0.2
David Li Kwok Po	0.6	0.1	-	-	-	0.7
Poon Chung Kwong	0.6	-	-	_	-	0.6
	3.7	10.8	33.6	7.6	-	55.7

The above remuneration paid to directors of the Company also represents the amount of short-term employee benefits of HK\$48.4 million (2015: HK\$48.1 million) and post-employment benefits of HK\$7.7 million (2015: HK\$7.6 million) paid to the Group's senior management during the year ended 31st December 2016. There were no other long-term benefits, termination benefits and share-based payment paid to the Group's senior management during the year (2015: 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 income statement represents:

	2016 HK\$'M	2015 HK\$'M
Current taxation – provision for Hong Kong Profits Tax at the rate of 16.5% (2015: 16.5%) on the estimated assessable profits for the year	647.5	628.0
Current taxation – provision for other countries income tax at the prevailing rates on the estimated assessable profits for the year (Note (a))	695.9	777.4
Current taxation – over provision in prior years	(101.6)	(9.5)
Deferred taxation – origination and reversal of temporary differences	255.2	215.9
Withholding tax	78.9	114.9
	1,575.9	1,726.7

## Note

(a) The prevailing tax rates of the mainland China and Thailand range from 15 per cent to 25 per cent (2015: 15 per cent to 25 per cent) and 50 per cent (2015: 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:

	2016 HK\$'M	2015 HK\$'M
Profit before taxation	9,845.7	9,906.0
Less: Share of results of associates	(2,447.4)	(2,228.2)
Share of results of joint ventures	(1,465.3)	(1,715.6)
	5,933.0	5,962.2
Calculated at a tax rate of 16.5% (2015: 16.5%)	978.9	983.8
Effect of different tax rates in other countries	275.9	354.1
Income not subject to taxation	(121.1)	(122.1)
Expenses not deductible for taxation purposes	340.1	301.5
Utilisation of previously unrecognised tax losses	(6.3)	(5.1)
Over provision in prior years	(101.6)	(9.5)
Withholding tax	78.9	114.9
Others	131.1	109.1
	1,575.9	1,726.7

Share of associates' taxation for the year ended 31st December 2016 of HK\$351.3 million (2015: HK\$354.1 million) is included in the income statement as share of results of associates.

Share of joint ventures' taxation for the year ended 31st December 2016 of HK\$543.3 million (2015: HK\$577.8 million) is included in the income statement as share of results of joint ventures.

## 14 Dividends

	2016 HK\$'M	2015 HK\$'M
Interim, paid of HK12 cents per ordinary share (2015: HK12 cents per ordinary share)	1,526.0	1,387.6
Final, proposed of HK23 cents per ordinary share (2015: HK23 cents per ordinary share)	2,924.9	2,659.0
	4,450.9	4,046.6

At a meeting held on 16th March 2017, the directors of the Company declared a final dividend of HK23 cents per ordinary share for the year ended 31st December 2016. 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 2016.

## 15 Earnings per share

The calculation of basic earnings per share is based on the profit attributable to shareholders of HK\$7,340.7 million (2015: HK\$7,302.0 million) and the weighted average of 12,717,042,258 shares (2015: 12,718,465,258 shares<sup>1</sup>) in issue during the year.

As there were no diluted potential ordinary shares outstanding during the year (2015: nil), the diluted earnings per share for the year ended 31st December 2016 is the same as the basic earnings per share.

<sup>1</sup> Adjusted for the bonus share issue in 2016

# 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 2016	17,428.8	30,196.2	3,210.3	3,977.7	845.7	7,824.0	63,482.7
Additions	576.4	456.4	366.3	41.9	34.3	4,786.7	6,262.0
Acquisition of businesses (Note 42 (a) & (b))	41.2	-	-	-	-	3.6	44.8
Transfers from capital work in progress	1,178.4	2,612.7	0.7	-	17.1	(3,808.9)	_
Disposals/write off	(113.7)	(39.9)	(84.9)	(1.7)	-	(124.3)	(364.5)
Exchange differences	(803.9)	(1,376.6)	(7.0)	(31.0)	(59.9)	(392.8)	(2,671.2)
At 31st December 2016	18,307.2	31,848.8	3,485.4	3,986.9	837.2	8,288.3	66,753.8
Accumulated depreciation							
At 1st January 2016	6,571.4	6,731.2	2,103.0	505.9	115.6	-	16,027.1
Charge for the year	930.0	824.2	249.2	136.6	13.4	-	2,153.4
Disposals/write off	(84.5)	(25.7)	(64.3)	(0.2)	-	-	(174.7)
Exchange differences	(215.1)	(223.8)	(4.3)	(5.8)	(12.6)	-	(461.6)
At 31st December 2016	7,201.8	7,305.9	2,283.6	636.5	116.4	-	17,544.2
Net book value							
At 31st December 2016	11,105.4	24,542.9	1,201.8	3,350.4	720.8	8,288.3	49,209.6
At 31st December 2015	10,857.4	23,465.0	1,107.3	3,471.8	730.1	7,824.0	47,455.6

# 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 2015	16,728.2	28,022.5	3,224.5	5,967.1	861.3	9,758.9	64,562.5
Additions	778.4	405.5	335.0	91.2	21.2	4,598.2	6,229.5
Acquisition of businesses	30.0	-	-	-	-	4.0	34.0
Disposal of subsidiaries	(700.0)	-	-	(1,684.2)	-	(2,339.6)	(4,723.8)
Transfers from capital work in progress	1,281.4	2,664.9	1.0	_	3.4	(3,950.7)	_
Disposals/write off	(190.4)	(46.6)	(345.1)	(1.6)	(0.3)	-	(584.0)
Exchange differences	(498.8)	(850.1)	(5.1)	(394.8)	(39.9)	(246.8)	(2,035.5)
At 31st December 2015	17,428.8	30,196.2	3,210.3	3,977.7	845.7	7,824.0	63,482.7
Accumulated depreciation							
At 1st January 2015	6,073.6	6,123.6	2,191.9	368.3	110.1	-	14,867.5
Charge for the year	879.8	764.4	240.0	191.7	12.5	-	2,088.4
Disposal of subsidiaries	(142.4)	-	-	-	-	-	(142.4)
Disposals/write off	(116.0)	(30.7)	(325.9)	(0.5)	(0.3)	-	(473.4)
Exchange differences	(123.6)	(126.1)	(3.0)	(53.6)	(6.7)	-	(313.0)
At 31st December 2015	6,571.4	6,731.2	2,103.0	505.9	115.6	_	16,027.1
Net book value							
At 31st December 2015	10,857.4	23,465.0	1,107.3	3,471.8	730.1	7,824.0	47,455.6
At 31st December 2014	10,654.6	21,898.9	1,032.6	5,598.8	751.2	9,758.9	49,695.0

# 17 Investment property

	2016 HK\$'M	2015 HK\$'M
At 1st January	713.0	683.0
Fair value gain (Note 7)	14.1	26.8
Others	1.9	3.2
At 31st December	729.0	713.0

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 2016 by an independent professionally qualified valuer, Knight Frank Petty Limited which conform to the The HKIS Valuation Standards on Properties (2012 Edition) shown in Note 2(h).

## 17 Investment property (Continued)

#### Fair value measurements using significant unobservable inputs

Fair value of completed commercial property in Hong Kong is generally derived using the income capitalisation method. This valuation method is based on the capitalisation of the net income and reversionary income potential by adopting appropriate capitalisation rates, which are derived from analysis of sale transactions and valuer's interpretation of prevailing investor requirements or expectations. The prevailing market rents adopted in the valuation have reference to valuer's view of recent lettings, within the subject properties and other comparable properties.

Information about fair value measurements using significant unobservable inputs is as follows:

Unobservable inputs	Commercial complex	Car park	Relationship of unobservable inputs to fair value
Capitalisation rate	5.4%	9.0%	The higher the capitalisation rate, the lower the fair value
Monthly rent	HK\$17.2 /sq.ft.	N/A	The higher the market rent, the higher the fair value

## Valuation processes of the Group

The Group's finance division includes a team that review and analyse the valuation performed by the independent valuer for financial reporting purposes. At each financial year end the finance division:

- Verifies all major inputs to the independent valuation report;
- Assesses property valuation movements when compared with the prior year valuation report;
- Holds discussions with the independent valuer.

## 18 Leasehold land

The Group's interests in leasehold land and land use rights movements during the year are analysed as follows:

	2016 HK\$'M	2015 HK\$'M
At 1st January	1,961.9	1,658.6
Additions	199.9	429.9
Acquisition of businesses (Note 42 (a) & (b))	44.2	9.4
Disposal of a subsidiary	-	(16.2)
Disposals	(16.9)	(0.5)
Amortisation	(56.2)	(51.0)
Exchange differences	(116.3)	(68.3)
At 31st December	2,016.6	1,961.9

#### NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

## 19 Intangible assets

		2016 HK\$'M	2015 HK\$'M
(a)	Goodwill		
	At 1st January	5,349.0	5,348.3
	Acquisition of businesses (Note 42 (a) & (b))	47.4	145.1
	Exchange differences	(250.3)	(144.4)
	At 31st December	5,146.1	5,349.0
(b)	Other intangible asset		
	Cost		
	At 1st January	520.9	541.9
	Acquisition of businesses	-	0.3
	Exchange differences	(28.4)	(21.3)
	At 31st December	492.5	520.9
	Accumulated amortisation		
	At 1st January	(50.4)	(31.7)
	Amortisation	(18.1)	(18.7)
	Exchange differences	2.3	
	At 31st December	(66.2)	(50.4)
	Net book value		
	At 31st December	426.3	470.5
	Total intangible assets	5,572.4	5,819.5

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 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 an active market. The value in use calculations are derived from cash flow projections based on the most recent financial budget for the next five years approved by management. Cash flows beyond five year period have been extrapolated using growth rates from 0.0 per cent to 10.0 per cent (2015: 0.0 per cent to 10.0 per cent) per annum which are determined by considering both internal and external factors relating to the cash-generating units. Discount rate used of 8.5 per cent or 10.0 per cent (2015: 8.0 per cent or 10.0 per cent) is adopted to reflect specific risks relating to the relevant cash-generating units. Based on impairment tests prepared, there is no impairment for intangible assets as at 31st December 2016 and 2015.

Assuming growth rate decreased by 25 basis points or discount rate increased by 25 basis points, there is still adequate headroom and no impairment charge is required.

## 20 Subsidiaries

## Material non-controlling interests

The total non-controlling interest as at 31st December 2016 is HK\$6,612.0 million (2015: HK\$6,917.7 million) of which HK\$4,751.4 million (2015: HK\$4,877.3 million) is attributable to Towngas China and for the non-controlling interest in respect of other individual subsidiaries of the Group is not material.

Set out below are the summarised financial information of Towngas China. The information below is the amount before inter-company eliminations.

	Towngas	China
Summarised statement of financial position	2016 HK\$'M	2015 HK\$'M
Assets		
Non-current assets	21,008.4	20,516.7
Current assets	3,545.6	4,663.2
	24,554.0	25,179.9
Liabilities		
Non-current liabilities	(6,130.5)	(6,445.0)
Current liabilities	(7,262.7)	(7,757.1)
	(13,393.2)	(14,202.1)
Net assets	11,160.8	10,977.8
	Towngas	China
Summarised income statement and comprehensive income statement	2016 HK\$'M	2015 HK\$'M
Revenue	7,181.1	7,718.3
Profit before taxation	1,455.4	1,268.0
Taxation	(362.1)	(343.5)
Profit for the year	1,093.3	924.5
Other comprehensive income	(977.2)	(580.4)

Other comprehensive income	(7/7.2)	(360.4)
Total comprehensive income	116.1	344.1
Total comprehensive income attributable to non-controlling interests	32.0	63.2
Dividend paid to non-controlling shareholders	92.3	89.5

#### NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

## 20 Subsidiaries (Continued)

	Townga	s China
Summarised cash flows statement	2016 HK\$'M	2015 HK\$'M
Net cash generated from operating activities	1,666.7	1,416.6
Net cash used in investing activities	(1,595.9)	(1,770.0)
Net cash (outflow)/inflow from financing activities	(759.3)	1,161.3
Net (decrease)/increase in cash and cash equivalents	(688.5)	807.9
Cash and cash equivalents at beginning of year	2,138.4	1,451.7
Effect of foreign exchange rate changes	(98.8)	(121.2)
Cash and cash equivalents at end of year	1,351.1	2,138.4

## 21 Associates

	2016 HK\$'M	2015 HK\$'M
Investments in associates, including goodwill	19,766.7	18,795.3
Loans to associates – non-current	718.3	796.6
	20,485.0	19,591.9
Loan and other receivables from associates – current	153.4	90.9

Loan and other receivables from associates are analysed below:

- (i) Loans to associates in mainland China of HK\$855.0 million (2015: HK\$802.2 million) with effective interest rates ranging from 4.35 per cent to 7.20 per cent per annum (2015: 4.35 per cent to 6.50 per cent per annum) are unsecured and fully repayable in 2017 to 2018 (2015: 2016 to 2017).
- (ii) The remaining balances are unsecured, interest free and have no fixed terms of repayment.
- (iii) Loan and other receivables from associates are neither past due nor impaired and there is no history of default.
- (iv) Loan and other receivables are denominated in the following currencies:

	2016 HK\$'M	2015 HK\$'M
USD	479.4	541.0
RMB	388.6	342.2
HKD	3.7	4.3
	871.7	887.5

## 21 Associates (Continued)

Particulars of the principal associates as at 31st December 2016 are listed below:

Name	Note	lssued share capital/ registered capital	Percentage of the Group's equity interest	Place of incorporation/ operation	Principal activity
Fengcheng Xingao Coking Co., Ltd.		RMB350.0 million	40	PRC	Chemical business
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		RMB2,212.1 million	26.5	PRC	Gas sales and related businesses
港華儲氣有限公司	(ii)	RMB100 million	64	PRC	Gas storage project
Central Waterfront Property Investment Holdings Limited	(i)	US\$100	15.8	British Virgin Islands/ Hong Kong	Investment holding
GH-Fusion Limited	(ii)	US\$200	50	British Virgin Islands	Investment holding
江蘇海企港華燃氣發展有限公司		RMB216.7 million	33	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		RMB252.0 million	27.5	PRC	Mid-stream natural gas project
Hebei Natural Gas Company Limited		RMB920.0 million	43	PRC	Mid-stream natural gas project
河南省中原石油天然氣管網有限公司		RMB50.0 million	49	PRC	Mid-stream natural gas project
Lane Success Development Limited		HK\$10,000	45	Hong Kong	Property development
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
Shanxi Yuanping Guoxin Compressed Natural Gas Co., Ltd.		RMB20.0 million	42	PRC	Vehicular fuel refilling station
中新蘇州工業園區環保技術有限公司		RMB185.0 million	49	PRC	Water treatment project

#### 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 2016 are listed below: (Continued)

Name	lssued share capital/ registered capital	Percentage of the Group's equity interest	Place of incorporation/ operation	Principal activity
Held by Towngas China				
Anhui Province Wenery Towngas Natural Gas Company Limited	RMB240.0 million	49	PRC	Gas sales and related businesses
Bozhou WanHua Gas Company Limited	RMB30.0 million	49	PRC	Gas sales and related businesses
Changchun Gas Co., Ltd.	RMB802.4 million	25	PRC	Gas sales and related businesses
Dalian DETA Hong Kong and China Gas Co., Ltd.	RMB137.2 million	40	PRC	Gas sales and related businesses
Foshan Gas Group Co., Ltd.	RMB500.0 million	43	PRC	Gas sales and related businesses
Fuzhou Fubei Natural Gas Co., Ltd.	RMB16.0 million	40	PRC	Gas sales and related businesses
Linqu Hong Kong & China Gas Company Limited	US\$5.7 million	42	PRC	Gas sales and related businesses
<sup>1</sup> SCEI Distributed Energy Systems Co., Ltd.	RMB472.5 million	25	PRC	Gas sales and related businesses
Shandong Jihua Gas Co., Ltd.	RMB400.0 million	49	PRC	Gas sales and related businesses
Shijiazhuang Huabo Gas Co., Ltd.	RMB19.0 million	45	PRC	Gas sales and related businesses
Zhuojia Public Engineering (Maanshan) Co., Ltd.	RMB12.0 million	38	PRC	Gas sales and related businesses
Zibo Lubo Gas Company Limited	RMB100.0 million	27	PRC	Gas sales and related businesses

<sup>1</sup> Newly formed during the year

### 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 comprehensive income statement:

	2016 HK\$'M	2015 HK\$'M
Income	10,892.6	11,397.8
Expenses, including taxation	(8,445.2)	(9,169.6)
Profit after taxation	2,447.4	2,228.2
Other comprehensive income/(loss)	7.2	(5.4)
Total comprehensive income	2,454.6	2,222.8

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.

	PI
2016 HK\$'M	2015 HK\$'M
94,666.8	87,154.7
803.3	876.9
95,470.1	88,031.6
(18,276.2)	(18,280.0)
(2,020.3)	(2,005.3)
(20,296.5)	(20,285.3)
75 173 6	67,746.3
	HK\$'M 94,666.8 803.3 95,470.1 (18,276.2) (2,020.3)

#### NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

## 21 Associates (Continued)

	CV	VPI
Summarised income statement and comprehensive income statement	2016 HK\$'M	2015 HK\$'M
Income	13,475.1	13,287.0
Expenses, including taxation	(2,643.6)	(2,629.4)
Profit after taxation	10,831.5	10,657.6
Other comprehensive income/(loss)	45.8	(34.0)
Total comprehensive income	10,877.3	10,623.6
Dividend received from the associate	544.8	533.7

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		
	2016 HK\$'M	2015 HK\$'M	
Net assets			
At 1st January	67,746.3	60,502.7	
Profit for the year	10,831.5	10,657.6	
Other comprehensive income/(loss)	45.8	(34.0)	
Dividend paid	(3,450.0)	(3,380.0)	
At 31st December	75,173.6	67,746.3	
	2016 HK\$'M	2015 HK\$'M	
Carrying value			
Interest in associate (15.79%)	11,869.9	10,697.1	

#### 22 Joint ventures

	2016 HK\$'M	2015 HK\$'M
Investments in joint ventures, including goodwill	9,226.5	9,195.4
Loans to joint ventures – non-current	-	92.8
	9,226.5	9,288.2
Loan and other receivables from joint ventures – current	900.1	966.4
Amounts due to joint ventures – current	(718.9)	(572.3)

Loan and other receivables from joint ventures are analysed below:

- (i) Loans to joint ventures in mainland China of HK\$140.7 million (2015: HK\$335.1 million) with effective interest rates ranging from 4.35 per cent to 6.12 per cent per annum (2015: 4.35 per cent to 7.87 per cent per annum) are unsecured and fully repayable in 2017 (2015: 2016 to 2017).
- (ii) Loans to a joint venture in Hong Kong of HK\$52.9 million (2015: HK\$62.2 million) is unsecured, interest free 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 receivables from joint ventures are neither past due nor impaired and there is no history of default.
  - 2016 HK\$'M
     2015 HK\$'M

     RMB
     769.3
     997.0

     HKD
     130.8
     62.2

     900.1
     1,059.2
- (v) Loans and other receivables are denominated in the following currencies:

Amounts due to joint ventures are analysed below:

- (i) Amount due to a joint venture of HK\$453.1 million (2015: HK\$361.9 million) with effective interest rate of 4.44 per cent per annum (2015: 4.95 per cent per annum) is unsecured and repayable in 2017.
- (ii) Amounts due to joint ventures of HK\$261.8 million (2015: HK\$207.8 million) with effective interest rate of 2.35 per cent per annum (2015: 2.35 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) Amounts due to joint ventures are denominated in RMB (2015: denominated in RMB).

## 22 Joint ventures (Continued)

Particulars of the principal joint ventures as at 31st December 2016 are listed below:

Name	Note	lssued share capital/ registered capital	Percentage of the Group's equity interest	Place of incorporation/ operation	Principal activity
<sup>1</sup> Hua Yan Environmental Industry Development (Suzhou) Co., Ltd.		RMB75.0 million	55	PRC	Food and green waste treatment project
<sup>#</sup> 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
Yieldway International Limited		HK\$2	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		RMB1,597.0 million	50	PRC	Water supply and sewage treatment

<sup>#</sup> Direct joint ventures of the Company

<sup>1</sup> 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 2016 are listed below: (Continued)

Name	lssued share capital/ registered capital	Percentage of the Group's equity interest	Place of incorporation/ operation	Principal activity
Held by Towngas China				
Anqing Hong Kong and China Gas Company Limited	RMB73.0 million	50	PRC	Gas sales and related businesses
Chongqing Hong Kong and China Gas Company Limited	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 City Taigang Gas Company Limited	RMB100.0 million	29	PRC	Gas sales and related businesses
Taian Taishan Hong Kong and China Gas Company Limited	RMB80.0 million	49	PRC	Gas sales and related businesses
Weifang Hong Kong and China Gas Company Limited	RMB140.0 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	RMB56.0 million	50	PRC	Gas sales and related businesses

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 comprehensive income statement:

	2016 HK\$'M	2015 HK\$'M
Income	11,750.8	12,957.3
Expenses, including taxation	(10,285.5)	(11,241.7)
Profit after taxation and total comprehensive income	1,465.3	1,715.6

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

## 23 Available-for-sale financial assets

		2016 HK\$'M	2015 HK\$'M
Deb	ot securities (Note (a))	453.0	420.2
Equ	ity securities (Note (b))	4,514.1	4,146.8
		4,967.1	4,567.0
Not	res		
		2016 HK\$'M	2015 HK\$'M
(a)	Debt securities		
	Listed – Hong Kong	126.9	164.0
	Listed – overseas	326.1	256.2
		453.0	420.2
		2016 HK\$'M	2015 HK\$'M
(b)	Equity securities		
	Listed – Hong Kong	969.0	870.1
	Listed – overseas	206.1	124.0
	Unlisted (Note (c))	3,339.0	3,152.7
		4,514.1	4,146.8

- (c) Included in the unlisted equity securities of HK\$491.3 million (2015: HK\$517.0 million) are carried at cost less impairment as these investments do not have a quoted market price and range of reasonable fair value estimate is so significant that the directors of the Company are of the opinion that their fair value cannot be measured reliably.
- (d) In 2008 under a rare circumstance, the Group reclassified debt and equity securities that are no longer held for the purpose of selling in the near term out of the financial assets at fair value through profit or loss category into available-for-sale category.

As at 31st December 2016, the fair values of debt and equity securities assets reclassified during 2008 are HK\$16.7 million (2015: HK\$15.6 million).

If the Group had not reclassified the debt and equity securities during 2008, fair value gain recognised for the year in the income statement will be increased by HK\$5.1 million (2015: decreased by HK\$6.6 million).

(e) Available-for-sale financial assets are denominated in the following currencies:

	2016 HK\$'M	2015 HK\$′M
RMB	3,385.4	3,091.3
HKD	969.0	870.1
USD	612.7	605.6
	4,967.1	4,567.0

## 24 Retirement benefit liabilities

	2016 HK\$'M	2015 HK\$'M
At 31st December	(50.1)	(42.3)

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:

	2016 HK\$'M	2015 HK\$'M
Fair value of plan assets	524.2	534.1
Present value of funded obligations	(574.3)	(576.4)
Net liabilities in the consolidated statement of financial position	(50.1)	(42.3)

The plan assets did not include any shares of the Company as at 31st December 2016 (2015: nil).

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

	2016 HK\$′M	2015 HK\$'M
Current service cost	18.0	17.9
Net interest cost	0.7	-
Administrative expenses	0.1	0.1
Total (Note 11)	18.8	18.0

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

	2016 HK\$'M	2015 HK\$'M
Actuarial loss due to liability experience	_	4.1
Actuarial (gain)/loss due to financial assumption changes	(6.8)	13.9
Actuarial loss due to demographic assumption changes	0.3	-
Actuarial (gains)/losses	(6.5)	18.0
Return on plan assets, excluding amounts included in interest income	0.2	5.1
Total	(6.3)	23.1

## 24 Retirement benefit liabilities (Continued)

The movements in the defined benefit obligations are as follows:

	2016 HK\$'M	2015 HK\$'M
At 1st January	576.4	544.6
Current service cost	18.0	17.9
Interest cost	10.6	11.2
Benefits paid	(24.2)	(15.3)
Actuarial (gains)/losses	(6.5)	18.0
At 31st December	574.3	576.4

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

	2016 HK\$'M	2015 HK\$'M
At 1st January	534.1	538.7
Return on plan assets, excluding amounts included in interest income	(0.2)	(5.1)
Interest income recognised in consolidated income statement	9.9	11.2
Contribution paid by employer	4.7	4.7
Benefits paid	(24.2)	(15.3)
Administrative expenses	(0.1)	(0.1)
At 31st December	524.2	534.1

The movements in the liabilities recognised in the consolidated statement of financial position are as follows:

	2016 HK\$'M	2015 HK\$'M
At 1st January	(42.3)	(5.9)
Remeasurement effects recognised in other comprehensive income	6.3	(23.1)
Total cost of defined benefit retirement scheme (Note 11)	(18.8)	(18.0)
Contribution paid by employer	4.7	4.7
At 31st December	(50.1)	(42.3)

## 24 Retirement benefit liabilities (Continued)

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

	2016 %	2015 %
Equity securities	75.0	75.0
Debt securities	22.0	14.0
Cash	3.0	11.0

The principal actuarial assumptions used are as follows:

	2016 %	2015 %
Discount rate	2.0	1.9
Expected rate of future salary increases	4.5	4.5

The sensitivity of the defined benefit obligation to changes in the weighted principal assumptions is:

	Impact on defined benefit obligation		
	Change in assumption Increase in assumption Decrea		Decrease in assumption
Discount rate	0.25%	Decrease by 3.0%	Increase by 3.1%
Maximum salary scale increase rate	0.25%	Increase by 1.9%	Decrease by 2.2%

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 2017 are HK\$4.5 million.

## 24 Retirement benefit 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 12.2 years. Expected maturity analysis of benefit undiscounted payments:

	Beyond Within 5 years but 5 years within 10 years HK\$'M HK\$'M		Beyond 10 years HK\$'M
As 31st December 2016			
Expected benefit payments	105.8	172.2	758.3

### 25 Other non-current assets

	2016 HK\$'M	2015 HK\$'M
Second mortgage loans receivable (Note (a))	6.3	7.7
Aviation fuel facility construction receivable (Note (b))	2,464.0	2,350.0
Other receivables (Note (c))	390.1	14.1
	2,860.4	2,371.8

Notes

- (a) Balance represents non-current portion of second mortgage loans to buyers of the Grand Waterfront developed by the Group which are denominated in HKD. Second mortgage loans are secured by the mortgaged properties, bear interest at prime rate and are repayable by instalments in periods ranging from 15 to 25 years from the dates of drawdown.
- (b) Aviation fuel facility construction receivable is denominated in HKD, unsecured and will be recovered by monthly instalments up to 2047.
- (c) Balance mainly represents a prepayment for inventory to a supplier which is denominated in RMB.

### 26 Inventories

	2016 HK\$'M	2015 HK\$'M
Stores and materials Work in progress	1,403.3 707.1	1,552.5 738.8
	2,110.4	2,291.3

The Group wrote down the carrying value of inventories by HK\$2.5 million (2015: wrote down by HK\$12.2 million) to its net realisable value during the year.

## 27 Trade and other receivables

	2016 HK\$'M	2015 HK\$'M
Trade receivables (Note (a))	3,497.5	3,513.9
Payments in advance (Note (b))	1,259.4	1,242.3
Other receivables	1,572.7	2,140.6
	6,329.6	6,896.8

Trade and other receivables are denominated in the following currencies:

	2016 HK\$'M	2015 HK\$'M
RMB	3,705.3	4,418.7
HKD	2,534.3	2,366.5
USD	88.7	110.8
Others	1.3	0.8
	6,329.6	6,896.8

#### Notes

(a) The Group has established credit policies for different types of customers. The credit periods offered for trade receivables, which are subject to periodic review by management, range from 30 to 60 days except for gas receivables of the Company which are due by 8 working days after billing date. As at 31st December 2016, the aging analysis of the trade receivables, net of impairment provision, is as follows:

	2016 HK\$'M	2015 HK\$'M
0 – 30 days	2,874.8	2,979.5
31 – 60 days	199.0	129.5
61 – 90 days	135.9	104.5
Over 90 days	287.8	300.4
	3,497.5	3,513.9

## 27 Trade and other receivables (Continued)

Notes (Continued)

#### (a) (Continued)

- (i) At 31st December 2016, trade receivables of the Group that were neither past due nor impaired amounted to HK\$2,641.2 million (2015: HK\$2,663.2 million). These balances mainly relate to individuals or companies that have been the Group's customers for more than 6 months and with no history of default in the past.
- (ii) Receivables that were past due but not impaired relate to a wide range of customers and management believes that no impairment provision is necessary as there has not been a significant change in credit quality and the balances are still considered fully recoverable. The aging analysis of trade receivables that were past due but not impaired is as follows:

	2016 HK\$'M	2015 HK\$'M
1 – 30 days	233.6	316.3
31 – 60 days	199.0	129.5
61 – 90 days	135.9	104.5
Over 90 days	287.8	300.4
	856.3	850.7

(iii) As at 31st December 2016, trade receivables of the Group amounting to HK\$134.4 million (2015: HK\$129.3 million) were impaired, all of which are aged over 90 days. The individually impaired receivables mainly relate to customers that have either been placed under liquidation or in severe financial difficulties.

The movements in the provision for impairment of trade receivables are as follows:

	2016 HK\$'M	2015 HK\$'M
At 1st January	129.3	84.0
Impairment loss recognised	13.7	61.0
Uncollectible amounts written off	(7.4)	(13.6)
Exchange differences	(1.2)	(2.1)
At 31st December	134.4	129.3

(b) Balance mainly represents prepayment for purchase of materials and services in relation to the Group's gas and New Energy businesses in Hong Kong and mainland China. As at 31st December 2016, the directors of the Company reviewed the composition of the balance and considered the amount is recoverable.

28	Financial	assets	at fair	value	through	profit or	loss

		2016 HK\$'M	2015 HK\$'M
Deb	ot securities (Note (a))	46.8	_
Equ	ity securities (Note (b))	20.5	12.1
		67.3	12.1
Not	es		
		2016 HK\$'M	2015 HK\$'M
(a)	Debt securities		
	unlisted – overseas	46.8	-
		46.8	-
		2016 HK\$′M	2015 HK\$'M
(b)	Equity securities		
	Listed – Hong Kong	18.5	10.1
	Listed – overseas	2.0	2.0
		20.5	12.1

Financial assets at fair value through profit or loss are denominated in the following currencies:

	2016 HK\$'M	2015 HK\$'M
НКД	65.3	10.1
USD	2.0	2.0
	67.3	12.1

# 29 Time deposits, cash and bank balances

	2016 HK\$'M	2015 HK\$'M
Time deposits over three months	3,381.1	1,326.9
Time deposits up to three months	4,067.5	6,248.9
Cash and bank balances	4,008.6	5,677.0
	8,076.1	11,925.9

### 29 Time deposits, cash and bank balances (Continued)

The effective interest rates on time deposits in Hong Kong and mainland China are 1.45 per cent and 1.83 per cent per annum respectively (2015: 1.27 per cent and 2.21 per cent per annum). These deposits have average maturity dates within 269 days (2015: 96 days).

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

	2016 HK\$′M	2015 HK\$'M
USD	5,734.4	1,942.1
RMB	4,120.1	6,706.7
HKD	1,537.4	4,548.3
THB	61.2	47.3
Others	4.1	8.4
	11,457.2	13,252.8

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.

## 30 Trade and other payables

	2016 HK\$'M	2015 HK\$'M
Trade payables (Note (a)) Other payables and accruals (Note (b))	2,647.0 9,487.2	2,573.1 9,363.6
	12,134.2	11,936.7

#### Notes

(a) At 31st December 2016, the aging analysis of the trade payables is as follows:

	2016 HK\$'M	2015 HK\$'M
0 – 30 days	1,379.3	1,179.3
31 – 60 days	249.5	352.0
61 – 90 days	264.0	314.1
Over 90 days	754.2	727.7
	2,647.0	2,573.1

(b) The balances mainly represent advance received from customers for construction works and accrual for services or goods received from suppliers. The balance at 31st December 2015 included an amount of approximately HK\$45.7 million payable to Henderson Land Development Company Limited and the balance was fully settled during the year.

## 30 Trade and other payables (Continued)

#### Notes (Continued)

(c) Trade and other payables are denominated in the following currencies:

	2016 HK\$'M	2015 HK\$'M
RMB	10,227.7	10,300.8
HKD	1,732.7	1,526.7
USD	149.3	82.4
Others	24.5	26.8
	12,134.2	11,936.7

### 31 Borrowings

	2016	2015
	HK\$'M	HK\$'M
Non-current		
Bank and other loans	8,399.2	5,820.4
Guaranteed notes (Note (a)(i)(ii))	18,896.9	17,543.0
	27,296.1	23,363.4
Current		
Bank and other loans	5,951.8	8,518.4
Guaranteed notes (Note (a)(iii))	-	1,193.9
	5,951.8	9,712.3
Total borrowings	33,247.9	33,075.7

#### Notes

- (a) Guaranteed notes comprise:
  - (i) The US\$1 billion guaranteed notes were issued by HKCG (Finance) Limited, a wholly-owned subsidiary of the Company, on 7th August 2008. The notes are unsecured and guaranteed by the Company as to repayment, carry a fixed coupon rate of 6.25 per cent per annum payable semi-annually in arrear and have a maturity term of 10 years. The notes are listed on The Stock Exchange of Hong Kong Limited. At 31st December 2016, notes with a principal amount of US\$995.0 million (2015: US\$995.0 million), which is equivalent to HK\$7,717.2 million (2015: HK\$7,712.2 million), are outstanding in the market and the market value of the notes was HK\$8,211.5 million (2015: HK\$8,465.7 million).

#### 31 Borrowings (Continued)

Notes (Continued)

- (a) Guaranteed notes comprise: (Continued)
  - (ii) The HK\$9,738.0 million, AUD161.0 million and JPY10,000.0 million (2015: HK\$8,410.0 million, AUD161.0 million and JPY10,000.0 million) which is equivalent to HK\$11,301.3 million (2015: HK\$9,964.7 million), guaranteed notes were issued by HKCG (Finance) Limited, a wholly-owned subsidiary of the Company, between 2nd June 2009 and 5th September 2016. The notes are unsecured and guaranteed by the Company as to repayment, carry fixed coupon rates ranging from 1.19 per cent to 6.43 per cent per annum payable quarterly, half-yearly or annually in arrear and have maturity terms between 10 to 40 years.
  - (iii) The guaranteed notes as at 31st December 2015 of RMB1,000.0 million, which is equivalent to HK\$1,194.2 million, were issued by HKCG (Finance) Limited, a wholly-owned subsidiary of the Company, on 11th April 2011. The notes are unsecured and guaranteed by the Company as to repayment, carry fixed coupon rates of 1.40 per cent per annum payable half-yearly in arrear and have maturity terms of 5 years. The RMB guaranteed notes were fully repaid during the year.
- (b) The maturity of borrowings is as follows:

	Bank and	other loans	Guarant	ee notes
	2016 HK\$'M	2015 HK\$'M	2016 HK\$'M	2015 HK\$'M
Within 1 year	5,951.8	8,518.4	-	1,193.9
Between 1 and 2 years	1,683.2	1,762.9	7,700.8	-
Between 2 and 5 years	6,635.1	3,979.0	774.0	8,175.8
Wholly repayable within 5 years	14,270.1	14,260.3	8,474.8	9,369.7
Wholly repayable over 5 years	80.9	78.5	10,422.1	9,367.2

(c) The exposure of the Group's borrowings to interest rate changes and the contractual repricing dates are all within 6 months from the statement of financial position date, 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 statement of financial position date are as follows:

			2016					2015		
	HKD	USD	RMB	AUD	JPY	HKD	USD	RMB	AUD	JPY
Bank and other loans	1.6%	1.4%	4.2%	N/A	0.8%	1.2%	1.1%	4.5%	N/A	0.8%
Guaranteed notes	3.6%	5.4%	N/A	3.1%	3.4%	3.8%	5.4%	1.6%	3.1%	3.4%

(d) 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.

### 31 Borrowings (Continued)

Notes (Continued)

(e) The carrying amounts of the borrowings are denominated in the following currencies:

	2016 HK\$'M	2015 HK\$'M
НКД	13,906.2	15,771.1
RMB	9,541.0	7,530.4
USD	8,219.8	8,201.2
AUD	899.7	909.0
JPY	681.2	664.0
	33,247.9	33,075.7

## 32 Customers' deposits

Customers' deposits mainly represent deposits received from customers pursuant to gas supply contracts agreed with customers and are repayable upon termination of gas supply contracts. The carrying values of the deposits approximate the fair value as the impact of discount is not significant.

The balances are denominated in HKD and bear interest at bank savings rate.

## 33 Deferred taxation

The movements in the deferred taxation are as follows:

	2016 HK\$'M	2015 HK\$'M
At 1st January	4,874.7	5,169.2
Charged to income statement	334.1	330.8
Acquisition of businesses (Note 42 (b))	0.9	0.1
Disposal of a subsidiary	-	(382.5)
Withholding tax	(63.0)	(47.2)
Exchange differences	(79.4)	(195.7)
At 31st December	5,067.3	4,874.7

## 33 Deferred taxation (Continued)

Prior to offsetting of balances within the same taxation jurisdiction, the movements in deferred tax liabilities and assets during the year are as follows:

		ated tax ciation		and oil erties	Others		Тс	tal
Deferred tax liabilities	2016 HK\$'M	2015 HK\$'M	2016 HK\$'M	2015 HK\$'M	2016 HK\$'M	2015 HK\$'M	2016 HK\$'M	2015 HK\$'M
At 1st January	2,577.5	2,328.2	1,578.4	2,161.8	737.9	698.3	4,893.8	5,188.3
Charged/(credited) to income statement	324.6	277.0	(44.7)	(53.1)	54.2	106.9	334.1	330.8
Acquisition of businesses (Note 42 (b))	_	_	-	_	0.9	0.1	0.9	0.1
Disposal of a subsidiary	-	_	-	(382.5)	-	-	-	(382.5)
Withholding tax	-	-	-	-	(63.0)	(47.2)	(63.0)	(47.2)
Exchange differences	(49.4)	(27.7)	3.2	(147.8)	(33.2)	(20.2)	(79.4)	(195.7)
At 31st December	2,852.7	2,577.5	1,536.9	1,578.4	696.8	737.9	5,086.4	4,893.8
			Prov	isions	Tax lo	osses	Тс	ıtal
Deferred tax assets	2016 HK\$'M	2015 HK\$'M	2016 HK\$'M	2015 HK\$'M	2016 HK\$'M	2015 HK\$'M		
At 1st January and 31st Decem	(8.3)	(8.3)	(10.8)	(10.8)	(19.1)	(19.1)		
Net deferred tax liabilities at 31st December								4,874.7

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\$543.4 million (2015: HK\$435.7 million) in respect of losses amounting to HK\$2,412.8 million (2015: HK\$1,982.5 million) that can be carried forward and set off against future taxable income. These tax losses have no expiry dates except for the tax losses of HK\$1,709.4 million (2015: HK\$1,277.9 million) which will expire at various dates up to and including 2021 (2015: 2020).

## 34 Derivative financial instruments

	20	16	2015		
	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	176.1	(540.9)	161.5	(636.9)	
Foreign currency forward contracts – held-for-trading	81.0	-	-	-	
Interest rate swap contracts – held-for-trading	-	(1.3)	-	(17.5)	
Related derivative of available-for-sale financial asset	248.8	-	_	_	
	505.9	(542.2)	161.5	(654.4)	
Current					
Cross currency swap and interest rate swap contracts – cash flow hedges	-	-	-	(28.2)	
Cross currency swap contracts – held-for-trading	87.5	-	-	-	
Interest rate swap contracts – held-for-trading	_	-	-	(13.5)	
	87.5	-	-	(41.7)	

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.

The ineffective portion recognised in the income statement that arises from cash flow hedges amounts to a gain of HK\$5.0 million (2015: a loss of HK\$9.4 million).

## 34 Derivative financial instruments (Continued)

The major terms of the outstanding derivative contracts at 31st December 2016 and 2015 are as follows:

Notional amount	Maturity	Forward contract rate	Interest rat	te (per annum)	Exchange frequency				
			Receive	Pay	Receive	Рау			
Cross currency s	swap and	interest rate swap contrac	:ts – cash fl	ow hedges					
<sup>#</sup> RMB1 billion	2016	RMB1 to HKD1.21	1.40%	1.57% – 1.60%	Semi-annually	Semi-annually			
USD1 billion	2018	USD1 to HKD7.8	6.25%	5.20% – 5.66%	Semi-annually	Quarterly or semi-annually			
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			
Foreign currenc	y forward	l contracts – held-for-tradi	ng						
RMB448.8 million	2018	RMB1 to HKD1.11	Nil	Nil	Nil	Nil			
RMB456.1 million	2018	USD1 to RMB7.02	Nil	Nil	Nil	Nil			
RMB336.9 million	2019	RMB1 to HKD1.09	Nil	Nil	Nil	Nil			
Cross currency	Cross currency swap contracts – held-for-trading								
HKD1.6 billion	2017	HKD1 to RMB0.83 – RMB0.86	Nil	1.94%- 2.39%	Not applicable	Quarterly or Annually			
Interest rate sw	ap contra	cts – held-for-trading							
<sup>#</sup> HKD350 million	2016	N/A	HIBOR	1.98%	Quarterly	Quarterly			

# Fully settled in 2016

Gains and losses recognised in the hedging reserve in equity (Note 37) on the swaps as of 31st December 2016 will be continuously released to the income statement until the repayment of relevant borrowings.

## 35 Share capital

	Number	of shares	Share capital		
	<b>2016</b> 2015		2016 HK\$'M	2015 HK\$'M	
Issued and fully paid:					
At beginning of year	11,560,947,508	10,512,089,553	5,474.7	5,474.7	
Bonus shares	1,156,094,750	1,051,208,955	-	-	
Shares bought back	-	(2,351,000)	-	-	
At end of year	12,717,042,258	11,560,947,508	5,474.7	5,474.7	

## 36 Perpetual capital securities

In January 2014, the Group issued its first perpetual subordinated guaranteed capital securities (the "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 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.

### 37 Reserves

	Investment revaluation reserve HK\$'M	Hedging reserve HK\$'M	Other reserve HK\$'M	Exchange reserve HK\$'M	Retained profits HK\$'M	Total HK\$'M
At 1st January 2016	(471.9)	166.5	-	1,307.3	46,364.8	47,366.7
Profit attributable to shareholders	_	_	-	-	7,340.7	7,340.7
Other comprehensive income:						
Remeasurements of retirement benefit	-	-	-	-	6.3	6.3
Change in value of available- for-sale financial assets	57.2	-	-	-	-	57.2
Impairment loss on available- for-sale financial assets transferred to income statement	534.3	_	_	_	_	534.3
Change in fair value of cash flow hedges	_	85.5	_	_	_	85.5
Share of comprehensive gain of an associate	-	7.2	-	-	-	7.2
Exchange differences	-	-	-	(2,676.5)	-	(2,676.5)
Total comprehensive income for the year	591.5	92.7	-	(2,676.5)	7,347.0	5,354.7
Further acquisition of subsidiaries	-	-	-	-	(78.9)	(78.9)
2015 final dividend paid	-	-	-	-	(2,659.0)	(2,659.0)
2016 interim dividend paid	-	-	-	-	(1,526.0)	(1,526.0)
At 31st December 2016	119.6	259.2	-	(1,369.2)	49,447.9	48,457.5
Balance after 2016 final dividend proposed	119.6	259.2	_	(1,369.2)	46,523.0	45,532.6
2016 final dividend proposed	_	_	-	-	2,924.9	2,924.9
	119.6	259.2	-	(1,369.2)	49,447.9	48,457.5

## 37 Reserves (Continued)

	Investment revaluation reserve HK\$'M	Hedging reserve HK\$'M	Other reserve HK\$'M	Exchange reserve HK\$'M	Retained profits HK\$'M	Total HK\$'M
At 1st January 2015	431.8	290.1	(14.4)	3,113.3	43,332.7	47,153.5
Profit attributable to shareholders	-	-	_	_	7,302.0	7,302.0
Other comprehensive income:						
Remeasurements of retirement benefit	-	-	_	-	(23.1)	(23.1)
Change in value of available- for-sale financial assets	(942.3)	-	_	-	-	(942.3)
Impairment loss on available- for-sale financial assets transferred to income statement	38.6	_	_	_	_	38.6
Change in fair value of cash flow hedges	-	(118.2)	_	-	-	(118.2)
Share of comprehensive loss of an associate	-	(5.4)	_	_	_	(5.4)
Disposal of subsidiaries	-	-	-	(83.0)	-	(83.0)
Exchange differences	-	-	-	(1,723.0)	-	(1,723.0)
Total comprehensive income for the year	(903.7)	(123.6)	_	(1,806.0)	7,278.9	4,445.6
Further acquisition of subsidiaries	-	-	-	-	(405.4)	(405.4)
2014 final dividend paid	-	-	-	-	(2,417.8)	(2,417.8)
2015 interim dividend paid	-	-	-	-	(1,387.6)	(1,387.6)
Shares bought back	-	-	-	-	(36.0)	(36.0)
Others	-	-	14.4	-	-	14.4
At 31st December 2015	(471.9)	166.5		1,307.3	46,364.8	47,366.7
Balance after 2015 final dividend proposed	(471.9)	166.5	_	1,307.3	43,705.8	44,707.7
2015 final dividend proposed	_	-	_		2,659.0	2,659.0
	(471.9)	166.5	_	1,307.3	46,364.8	47,366.7

## 38 Contingent liabilities

The Company and the Group did not have any material contingent liabilities as at 31st December 2016 and 2015.

### 39 Commitments

(a) Capital expenditures for property, plant and equipment

	2016 HK\$'M	2015 HK\$'M
Contracts had been entered into but not brought into		
the consolidated financial statements at 31st December	3,455.4	3,580.1

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

	2016 HK\$'M	2015 HK\$'M
Contracts had been entered into but not brought into the consolidated financial statements at 31st December	2,127.9	2,086.9

(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 2016, the Group's commitments to these projects were approximately HK\$2,071.4 million (2015: HK\$1,620.7 million).

#### (d) Lease commitments

#### Lessee

At 31st December 2016, future aggregate minimum lease payments of land, buildings, plant and equipment under non-cancellable operating leases are as follows:

	2016 HK\$'M	2015 HK\$'M
Not later than 1 year	122.8	122.2
Later than 1 year and not later than 5 years	179.3	181.9
Later than 5 years	213.5	213.6
	515.6	517.7

#### 39 Commitments (Continued)

#### (d) Lease commitments (Continued)

Lessor

The Group leases out the building facilities of the commercial complex and car parks of Grand Waterfront (further details of the carrying value of the property are contained in Note 17) and rental of data centre facilities under operating leases. Except for certain car parks rented out on an hourly or a monthly basis, these leases typically run for a period of 2 to 10 years. At 31st December 2016, future aggregate minimum lease payments receivable under non-cancellable operating leases are as follows:

	2016 HK\$'M	2015 HK\$'M
Not later than 1 year	86.0	95.8
Later than 1 year and not later than 5 years	235.0	242.2
Later than 5 years	145.6	200.0
	466.6	538.0

## 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

	2016 HK\$'M	2015 HK\$'M
Associates		
Sale of goods and services (Note (i))	21.0	14.3
Loan interest income (Note (ii))	41.0	41.4
Joint ventures		
Sale of goods and services (Note (i))	68.2	81.3
Loan interest income (Note (ii))	10.6	18.8
Other related parties		
Sale of goods and services (Note (i))	35.0	73.2
Interest income from bank deposits (Note (i))	1.7	9.8

## 40 Related party transactions (Continued)

(b) Interest expense and purchase of goods and services

	2016 HK\$'M	2015 HK\$'M
Associates		
Purchase of goods and services (Note (i))	104.9	184.8
Joint ventures		
Loan interest expenses (Note (i))	49.1	21.1
Other related parties		
Purchase of goods and services (Note (i))	16.6	15.8
Interest expense on bank loans (Note (i))	27.8	35.7

#### 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

	2016 HK\$'M	2015 HK\$'M
Time deposits and interest receivables	30.0	666.1
Bank loans and interest payables	560.2	556.9
Trade receivables	3.3	25.3
Trade payables	0.1	0.2

(d) Other related party transactions are also disclosed in Notes 12, 21, 22, 27 and 30.

## 41 Notes to consolidated cash flow statement

Reconciliation of profit before taxation to net cash from operating activities

	2016 HK\$'M	2015 HK\$'M
Profit before taxation	9,845.7	9,906.0
Share of results of associates	(2,447.4)	(2,228.2)
Share of results of joint ventures	(1,465.3)	(1,715.6)
Gain on disposal of an associate	-	(30.8)
Provision for an investment in an associate	250.0	-
Fair value gain on investment property	(14.1)	(26.8)
Impairment of trade receivables	13.7	61.0
Provision for other assets	206.6	168.6
Ineffective portion on cash flow hedges	(5.0)	9.4
Unhedged portion on cash flow hedges	-	1.2
Interest income	(209.9)	(344.5)
Interest expense	1,207.4	1,128.6
Dividend income from investments in securities	(151.5)	(183.9)
Depreciation and amortisation	2,223.1	2,075.3
Loss on disposal/write off of property, plant and equipment	30.9	87.2
Gain on disposal of leasehold land	(45.2)	(9.8)
Fair value gain on derivative	(248.8)	-
Net realised gain on available-for-sale financial assets	(13.3)	(93.9)
Net realised and unrealised gain on investments in financial assets at fair value through profit or loss and derivative financial instruments	(170.6)	(170.4)
Tax paid	(1,438.8)	(1,518.6)
Exchange differences	336.8	516.1
Changes in working capital		
Increase in customers' deposits	19.9	26.5
Decrease/(increase) in inventories	148.1	(169.1)
Decrease/(increase) in trade and other receivables	2.0	(1.4)
Increase in trade and other payables	371.6	778.0
Increase/(decrease) in asset retirement obligations	9.2	(1.7)
Changes in retirement benefit assets	14.1	13.3
Net cash from operating activities	8,469.2	8,276.5

### 42 Business combinations

(a) Business combination under the Group's new energy business

For the year ended 31st December 2016, the following business is acquired:

	Percentage of registered capital acquired	Purchase consideration HK\$'M
烏蘭察布市豐華商貿有限公司	100	6.4
烏拉特前旗新德寶商貿有限責任公司	100	6.9

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

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

	HK\$'M
Purchase consideration	13.3
Fair value of net identifiable assets acquired (see below)	(6.0)
Goodwill (Note 19 (a))	7.3

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

The fair value of identifiable assets and liabilities arising from the acquisition are as follows:

	Acquirees' fair value at acquisition date HK\$'M
Property, plant and equipment (Note 16)	1.2
Leasehold land (Note 18)	5.1
Trade and other receivables	0.3
Cash and bank balances	0.1
Trade and other payables	(0.7)
Net identifiable assets acquired	6.0

#### Net cash flow arising on acquisition:

	HK\$'M
Purchase consideration for acquisition of business, settled in cash	11.4
Cash and cash equivalents in business acquired	(0.1)
Cash outflow on acquisition of business	11.3

As at 31st December 2016, purchase consideration of HK\$1.9 million remained unpaid and included in trade and other payables.

### 42 Business combinations (Continued)

(b) Business combination under Towngas China

For the year ended 31st December 2016, Towngas China acquired the following business:

	Percentage of registered capital acquired	Purchase consideration HK\$'M
Qiqihar Xingqixiang Gas Company Limited	100	110.2

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

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

	Acquiree's fair value at acquisition date HK\$'M
Property, plant and equipment (Note 16)	43.6
Leasehold land (Note 18)	39.1
Trade and other receivables	2.7
Investment in a joint venture	2.1
Cash and bank balances	0.7
Trade and other payables	(17.2)
Deferred taxation	(0.9)
Net identifiable assets acquired	70.1
Goodwill (Note 19 (a))	40.1
Purchase consideration	110.2

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

### 42 Business combinations (Continued)

(b) Business combination under Towngas China (Continued)

Net cash flow arising on acquisition:

	HK\$'M
Purchase consideration for acquisition of business, settle in cash	99.4
Cash and cash equivalents in business acquired	(0.7)
Cash outflow on acquisition of business	98.7

As at 31st December 2016, purchase consideration of HK\$10.8 million remained unpaid and included in trade and other payables.

(c) Further acquisition of subsidiaries

During the year, the Group has further acquired the interest in several subsidiaries. The total consideration for all further acquisitions is approximately HK\$342.5 million. The difference between the share of net assets value acquired and total consideration of HK\$78.9 million was recognised directly in equity for these transactions with non-controlling interests.

(d) Apart from the above, there were no other material acquisitions during the year ended 31st December 2016.

# 43 Statement of financial position of the Company

	2016 HK\$'M	2015 HK\$'M
Assets		
Non-current assets		
Property, plant and equipment	11,107.8	10,575.3
Leasehold land	225.0	232.0
Subsidiaries	17,228.9	16,005.5
Joint ventures	831.7	831.7
Available-for-sale financial assets	30.0	37.6
	29,423.4	27,682.1
Current assets		
Inventories	1,124.8	1,212.2
Trade and other receivables	1,859.7	1,743.9
Loan receivables from subsidiaries	-	282.0
Loan and other receivables from associates	28.6	28.5
Other receivables from joint ventures	11.7	11.4
Time deposits over three months	1,042.5	-
Time deposits up to three months, cash and bank balances	723.2	1,732.1
	4,790.5	5,010.1
Current liabilities		
Trade and other payables	(1,348.9)	(1,043.1)
Provision for taxation	(160.6)	(130.8)
	(1,509.5)	(1,173.9)
Total assets less current liabilities	32,704.4	31,518.3
Non-current liabilities		
Loan and other payables to subsidiaries	(10,248.1)	(10,412.9)
Customers' deposits	(1,289.0)	(1,271.9)
Deferred taxation	(1,286.2)	(1,231.9)
Retirement benefit liabilities	(50.1)	(42.3)
Borrowings	(246.8)	(245.8)
	(13,120.2)	(13,204.8)
Net assets	19,584.2	18,313.5

## 43 Statement of financial position of the Company (Continued)

	2016 HK\$'M	2015 HK\$'M
Capital and reserves		
Share capital	5,474.7	5,474.7
Reserves (Note (a))	14,109.5	12,838.8
	19,584.2	18,313.5

Approved by the Board of Directors on 16th March 2017

**Lee Shau Kee** Director David Li Kwok Po Director

# 43 Statement of financial position of the Company (Continued)

### Note

### (a) Reserves of the Company

_	Investment revaluation reserve HK\$'M	Retained profits HK\$'M	Total HK\$'M
At 1st January 2016	8.3	12,830.5	12,838.8
Profit attributable to shareholders	-	5,449.9	5,449.9
Other comprehensive income:			
Remeasurements of retirement benefit	-	6.3	6.3
Change in value of available-for-sale financial assets	(0.5)	-	(0.5)
Total comprehensive income for the year	(0.5)	5,456.2	5,455.7
2015 final dividend paid	-	(2,659.0)	(2,659.0)
2016 interim dividend paid	-	(1,526.0)	(1,526.0)
At 31st December 2016	7.8	14,101.7	14,109.5
Balance after 2016 final dividend proposed	7.8	11,176.8	11,184.6
2016 final dividend proposed	-	2,924.9	2,924.9
	7.8	14,101.7	14,109.5
At 1st January 2015	13.8	10,412.6	10,426.4
Profit attributable to shareholders	-	6,282.4	6,282.4
Other comprehensive income:			
Remeasurements of retirement benefit	-	(23.1)	(23.1)
Change in value of available-for-sale financial assets	(1.2)	-	(1.2)
Impairment loss on available-for-sale financial assets transferred to income statement	(4.3)	_	(4.3)
Total comprehensive income for the year	(5.5)	6,259.3	6,253.8
2014 final dividend paid	_	(2,417.8)	(2,417.8)
2015 interim dividend paid	_	(1,387.6)	(1,387.6)
Shares bought back	-	(36.0)	(36.0)
At 31st December 2015	8.3	12,830.5	12,838.8
Balance after 2015 final dividend proposed	8.3	10,171.5	10,179.8
2015 final dividend proposed	_	2,659.0	2,659.0
	8.3	12,830.5	12,838.8

## **Subsidiaries**

The following is a list of the principal subsidiaries as at 31st December 2016:

Name	Issued share capital/ registered capital	Percentage of issued/ registered capital held	Place of incorporation/ operation	Principal activity
Gas and related businesses in Hong Ko	ing			
Summit Result Developments Limited	у НК\$100	100	Hong Kong	Customers Centre
Towngas Enterprise Limited	НК\$2	100	Hong Kong	Café, restaurant and retail sales
Uticom Limited	HK\$100	100	Hong Kong	Development of automatic meter reading system
<sup>‡</sup> Quality Testing Services Limited	HK\$10,000	100	Hong Kong	Laboratory testing
Gas, water and related businesses in N	lainland China			
Chaozhou Hong Kong and China Gas Company Limited	HK\$100.0 million	90	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 Limited	HK\$71.3 million	82.6	PRC	Gas sales and related businesses
Guangzhou Hong Kong and China Gas Company Limited	RMB105.0 million	80	PRC	Gas sales and related businesses
Jiangxi Hong Kong and China Gas Company Limited	RMB25.9 million	56	PRC	Gas sales and related businesses
Jilin Hong Kong and China Gas Company Limited	RMB100.0 million	63	PRC	Gas sales and related businesses
常州金壇港華燃氣有限公司	RMB60.0 million	60	PRC	Gas sales and related businesses
Peixian Hong Kong and China Gas Company Limited	RMB100.0 million	100	PRC	Gas sales and related businesses
Pingxiang Hong Kong & China Gas Company Limited	RMB104.8 million	100	PRC	Gas sales and related businesses
<sup>+</sup> Suining Hong Kong and China Gas Company Limited	RMB66.5 million	100	PRC	Gas sales and related businesses
Taizhou Hong Kong and China Gas Company Limited	RMB83.0 million	65	PRC	Gas sales and related businesses
Taizhou Yongan Hong Kong and China Gas Company Limited	US\$10.0 million	93.9	PRC	Gas sales and related businesses
Wujiang Hong Kong and China Gas Company Limited	RMB60.0 million	80	PRC	Gas sales and related businesses
Xuzhou Hong Kong and China Gas Company Limited	RMB125.0 million	80	PRC	Gas sales and related businesses
Yixing Hong Kong and China Gas Company Limited	RMB124.0 million	80	PRC	Gas sales and related businesses
Zhang Shu Hong Kong & China Gas Company Limited	US\$5.0 million	100	PRC	Gas sales and related businesses
Zhongshan Hong Kong and China Gas Limited	RMB96.0 million	70	PRC	Gas sales and related businesses
景縣港華燃氣有限公司	RMB79.0 million	81	PRC	Gas sales and related businesses
豐縣港華燃氣有限公司	US\$4.5 million	100	PRC	Gas sales and related businesses
饒平港華燃氣有限公司	HK\$126.0 million	60	PRC	Gas sales and related businesses

# Direct subsidiaries of the Company† Wholly foreign-owned enterprises

## Subsidiaries (Continued)

The following is a list of the principal subsidiaries as at 31st December 2016: (Continued)

Name	Issued share capital/ registered capital	Percentage of issued/ registered capital held	Place of incorporation/ operation	Principal activity	
Gas, water and related businesses in Mainland China (Continued)					
†新密港華燃氣有限公司	US\$12.5 million	100	PRC	Gas sales and related businesses	
†港華支付科技(深圳)有限公司	RMB28.0 million	100	PRC	Payment gateway and related businesses	
瀋陽三全工程監理諮詢有限公司	RMB3.0 million	60	PRC	Project management	
<sup>†</sup> Maanshan Hong Kong and China Water Company Limited	US\$10.0 million	100	PRC	Water supply and related businesses	
<sup>#</sup> 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	
<sup>†</sup> Hong Kong & China Gas Investment Limited	US\$75.0 million	100	PRC	Investment holding	
* Towngas China Company Limited	2,711,601,763 shares of HK\$0.1 each	64.1	Cayman Island/ PRC	Investment holding	
The following subsidiaries engaged in gas equity interest held by TCCL is shown acc		Towngas Chir	a Company Limite	ed (TCCL) and the respective	
<sup>†</sup> An Shan Hong Kong and China Gas Company Limited	US\$20.0 million	100	PRC	Gas sales and related businesses	
Baotou Hong Kong & China Gas Company Limited	RMB100.0 million	85	PRC	Gas sales and related businesses	
Baoding Foric Hong Kong & China Gas Company Limited	RMB52.5 million	70	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	RMB310.0 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	
<sup>†</sup> 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 Hong Kong and China Gas Company Limited	US\$10.8 million	90	PRC	Gas sales and related businesses	
Chaozhou Fengxi Hong Kong and China Gas Co., Ltd	RMB60.0 million	60	PRC	Gas sales and related businesses	
Chi Ping Hong Kong and China Gas Company Limited	RMB40.0 million	85	PRC	Gas sales and related businesses	
<sup>†</sup> Chizhou Hong Kong and China Gas Company Limited	RMB20.0 million	100	PRC	Gas sales and related businesses	

<sup>#</sup> Direct subsidiaries of the Company
<sup>†</sup> Wholly foreign-owned enterprises
<sup>\*</sup> A listed company in The Stock Exchange of Hong Kong Limited

The following is a list of the principal subsidiaries as at 31st December 2016: (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 M	ainland China (Continue	d)		
Dafeng Hong Kong and China Gas Company Limited	RMB80.0 million	51	PRC	Gas sales and related businesses
<sup>†</sup> Dalian Changxing Hong Kong and China Gas Co. Ltd.	US\$14.0 million	100	PRC	Gas sales and related businesses
<sup>†</sup> Dalian Lvshun Hong Kong and China Gas Co. Ltd.	US\$15.0 million	100	PRC	Gas sales and related businesses
<sup>†</sup> Da Yi Hong Kong and China Gas Company Limited	RMB20.0 million	100	PRC	Gas sales and related businesses
<sup>†</sup> Feicheng Hong Kong and China Gas Company Limited	RMB32.0 million	100	PRC	Gas sales and related businesses
<sup>†</sup> Fuxin Dali Gas Company Limited	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
<sup>†</sup> Fuxin Xinqiu Hong Kong and China Gas Company Limited	RMB34.0 million	100	PRC	Gas sales and related businesses
<sup>†</sup> Gao Chun Hong Kong and China Gas Co., Ltd.	US\$4.0 million	100	PRC	Gas sales and related businesses
<sup>†</sup> Gongzhuling Hong Kong and China Gas Company Limited	RMB88.0 million	100	PRC	Gas sales and related businesses
<sup>†</sup> Guangxi Zhongwei Pipeline Gas Development Group Co., Ltd.	RMB30.0 million	100	PRC	Gas sales and related businesses
Guilin Hong Kong and China Gas Co., Ltd.	RMB30.0 million	100	PRC	Gas sales and related businesses
<sup>†</sup> Huang Shan Hong Kong & China Gas Co., Ltd.	RMB40.0 million	100	PRC	Gas sales and related businesses
<sup>†</sup> Huangshan Huizhou Hong Kong & China Gas Co., Ltd.	US\$2.1 million	100	PRC	Gas sales and related businesses
<sup>†</sup> 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
Jianyang Hong Kong and China Gas Company Limited	RMB30.0 million	100	PRC	Gas sales and related businesses
Jinan Pingyin Hong Kong & China Gas Co., Ltd.	RMB100.0 million	82.2	PRC	Gas sales and related businesses
Jiujiang Hong Kong and China Gas Co., Ltd.	RMB10.0 million	60	PRC	Gas sales and related businesses
<sup>†</sup> Kazuo Hong Kong & China Gas Co., Ltd.	US\$6.4 million	100	PRC	Gas sales and related businesses
<sup>†</sup> Laiyang Hong Kong and China Gas Co., Ltd	US\$5.4 million	100	PRC	Gas sales and related businesses
<sup>†</sup> Lezhi Hong Kong and China Gas Company Limited	RMB30.0 million	100	PRC	Gas sales and related businesses

<sup>†</sup> Wholly foreign-owned enterprises

The following is a list of the principal subsidiaries as at 31st December 2016: (Continued)

Name	lssued share capital/ registered capital	Percentage of issued/ registered capital held	Place of incorporation/ operation	Principal activity		
Gas, water and related businesses in M	Gas, water and related businesses in Mainland China (Continued)					
<sup>†</sup> Longkou Hongkong and China Gas Company Limited	US\$7.1 million	100	PRC	Gas sales and related businesses		
<sup>†</sup> 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		
<sup>†</sup> Maanshan Jiangbei Hong Kong & China Gas Company Limited	US\$10.0 million	100	PRC	Gas sales and related businesses		
Mengcun Hong Kong & China Gas Co., Ltd.	RMB10.0 million	90	PRC	Gas sales and related businesses		
Mianzhu Hong Kong and China Gas Co., Ltd.	RMB18.0 million	80	PRC	Gas sales and related businesses		
<sup>†</sup> Mianyang Hong Kong & China Gas Co., Ltd.	RMB90.0 million	100	PRC	Gas sales and related businesses		
Mianyang Heqing Towngas Co., Ltd.	RMB1.0 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 Company Limited	RMB50.0 million	70	PRC	Gas sales and related businesses		
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	RMB16.6 million	100	PRC	Gas sales and related businesses		
Pingchang Hong Kong and China Gas Company Limited	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		
Qingyuan Hong Kong and China Gas Company Limited	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		
Qiqihar Hong Kong and China Gas Company Limited	RMB128.6 million	61.7	PRC	Gas sales and related businesses		
Shao Guan Hong Kong and China Gas Co., Ltd.	RMB20.0 million	100	PRC	Gas sales and related businesses		
<sup>†</sup> Shenyang Hong Kong & China Gas Company Limited	US\$24.5 million	100	PRC	Gas sales and related businesses		
Siping Hong Kong and China Gas Company Limited	RMB45.0 million	80	PRC	Gas sales and related businesses		
Songyang Hong Kong & China Gas Company Limited	RMB20.0 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		

 $^{\dagger}$  Wholly foreign-owned enterprises

The following is a list of the principal subsidiaries as at 31st December 2016: (Continued)

Name	lssued share capital/ registered capital	Percentage of issued/ registered capital held	Place of incorporation/ operation	Principal activity
Gas, water and related businesses in Ma	inland China (Continue	ed)		
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
Weiyuan Hong Kong and China Gas Company Limited	RMB30.0 million	100	PRC	Gas sales and related businesses
Wuhu Jiangbei Hong Kong and China Gas Company Limited	RMB100.0 million	100	PRC	Gas sales and related businesses
Wulian Hong Kong and China Gas Company Limited	RMB20.0 million	70	PRC	Gas sales and related businesses
Wuning Hong Kong and China Gas Co., Ltd.	RMB40.0 million	100	PRC	Gas sales and related businesses
Xin Du Hong Kong and China Gas Company Limited, Cheng Du	RMB30.0 million	100	PRC	Gas sales and related businesses
Xin Jin Hong Kong and China Gas Company Limited	RMB20.0 million	60	PRC	Gas sales and related businesses
Xin Jin Yong Shuang Hong Kong and China Gas Company Limited	RMB20.0 million	60	PRC	Gas sales and related businesses
Xingyi Hong Kong and China Gas Company Limited	RMB50.0 million	70	PRC	Gas sales and related businesses
Xiushui Hong Kong and China Gas Company Limited	RMB30.0 million	80	PRC	Gas sales and related businesses
<sup>†</sup> Yang Jiang Hong Kong and China Gas Company Limited	RMB50.0 million	100	PRC	Gas sales and related businesses
Yanshan Hong Kong & China Gas Co., Ltd	RMB10.0 million	90	PRC	Gas sales and related businesses
Yangxin Hong Kong & China Gas Co., Ltd.	RMB18.0 million	51	PRC	Gas sales and related businesses
<sup>†</sup> Yifeng Hong Kong and China Gas Co., Ltd.	RMB32.0 million	100	PRC	Gas sales and related businesses
<sup>†</sup> Yingkou Hong Kong and China Gas Co., Ltd.	US\$9.4 million	100	PRC	Gas sales and related businesses
Yue Chi Hong Kong & China Gas Company Limited	RMB30.0 million	90	PRC	Gas sales and related businesses
<sup>†</sup> Zhao Yuan Hong Kong & China Gas Co., Ltd.	RMB22.0 million	100	PRC	Gas sales and related businesses
<sup>†</sup> Zhong Jiang Hong Kong and China Gas Company Limited	RMB30.0 million	100	PRC	Gas sales and related businesses
Ziyang Hong Kong and China Gas Company Limited	RMB30.0 million	90	PRC	Gas sales and related businesses
大連瓦房店金宇港華燃氣有限公司	RMB40.0 million	60	PRC	Gas sales and related businesses
Heilongjiang Hong Kong & China Lianfu New Energy Company Limited	RMB7.2 million	55	PRC	Vehicle gas refilling stations
<sup>2</sup> Qiqihar Xingqixiang Gas Company Limited	RMB83.1 million	100	PRC	Vehicle gas refilling stations
† Towngas Investments Limited	US\$200.0 million	100	PRC	Investment holding

<sup>†</sup> Wholly foreign-owned enterprises<sup>2</sup> Newly acquired during the year

The following is a list of the principal subsidiaries as at 31st December 2016: (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	НК\$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	НК\$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\$33.3 million	100	PRC	Chemical business
Inner Mongolia Coal Chemical Technology Company Limited	RMB867.0 million	100	PRC	Chemical business
Inner Mongolia ECO Ke Jian Coal Company Limited	RMB150.0 million	100	PRC	Coal related businesses
Qinhuangdao YiTeng Trade Co. Ltd.	US\$20.0 million	100	PRC	Coal related businesses
易高卓新節能技術(上海)有限公司	RMB14.0 million	100	PRC	Consultancy services
易高清潔能源管理服務(西安)有限公司	US\$1.5 million	100	PRC	Engineering services
易高新能源工程管理服務(深圳)有限公司	RMB15.0 million	100	PRC	Engineering services
1 易高卓新(上海) 融資租賃有限公司	US\$30.0 million	100	PRC	Financing
Shanxi ECO Coalbed Methane Co. Ltd.	RMB200.0 million	70	PRC	LNG business
Shandong ECO Juming Energy Co., Ltd	RMB150.0 million	90	PRC	LNG business
Xuzhou ECO ZhongTai New Energy Co., Ltd.	US\$24.5 million	80	PRC	LNG business
嘉祥縣恒生貿易有限公司	RMB180.0 million	88	PRC	Logistics business
ECO Orient Resources (Thailand) Ltd.	THB 425.0 million	100	Thailand	Oil business
<sup>†</sup> ECO Services Management Company Limited	RMB80.0 million	100	PRC	Project management
Dalian Yihua New Energy Technological Development Co., Ltd.	US\$4.8 million	100	PRC	Research and Development
易高環保能源科技(張家港)有限公司	US\$3.3 million	100	PRC	Research and Development
Anyang ECO Clean Energy Co., Ltd.	US\$2.3 million	100	PRC	Vehicular fuel refilling station
Chifeng ECO Clean Energy Co., Ltd.	RMB14.9 million	100	PRC	Vehicular fuel refilling station
Chiping ECO Yi Yun Gas Co. Ltd.	RMB15.0 million	100	PRC	Vehicular fuel refilling station
Dong Ping ECO Energy Co. Ltd.	RMB25.5 million	91	PRC	Vehicular fuel refilling station
Fengxiang ECO Clean Energy Company Limited	RMB15.0 million	100	PRC	Vehicular fuel refilling station
Guangzhou ECO Environmental Energy Co., Ltd.	US\$2.1 million	100	PRC	Vehicular fuel refilling station
Hanzhong ECO Clean Energy Co., Ltd.	US\$2.1 million	100	PRC	Vehicular fuel refilling station
Hebei ECO Hua Tong Clean Energy Co., Ltd	RMB31.0 million	80	PRC	Vehicular fuel refilling station
<sup>†</sup> Henan ECO Clean Energy Co. Ltd.	US\$2.2 million	100	PRC	Vehicular fuel refilling station
Jiaxiang ECO Energy Co. Ltd.	RMB28.0 million	70	PRC	Vehicular fuel refilling station

<sup>†</sup> Wholly foreign-owned enterprises<sup>1</sup> Newly formed during the year

The following is a list of the principal subsidiaries as at 31st December 2016: (Continued)

Name	lssued share capital/ registered capital	Percentage of issued/ registered capital held	Place of incorporation/ operation	Principal activity
New Energy businesses (Continued)				
Jining ECO Energy Co., Ltd.	RMB7.7 million	100	PRC	Vehicular fuel refilling station
Kaifeng ECO Clean Energy Co., Ltd.	US\$2.4 million	100	PRC	Vehicular fuel refilling station
Liaocheng ECO Clean Energy Co. Ltd.	US\$2.1 million	100	PRC	Vehicular fuel refilling station
Linzhou City ECO Clean Energy Co., Ltd.	US\$3.3 million	100	PRC	Vehicular fuel refilling station
MeiXian ECO Clean Energy Co., Ltd.	RMB14.2 million	100	PRC	Vehicular fuel refilling station
Nanyang ECO Clean Energy Co., Ltd.	RMB10.1 million	100	PRC	Vehicular fuel refilling station
Qingtongxia ECO Clean Energy Co., Ltd.	RMB15.4 million	100	PRC	Vehicular fuel refilling station
<sup>†</sup> 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
Xian ECO Yida Clean Energy Co., Ltd.	RMB12.0 million	100	PRC	Vehicular fuel refilling station
Xiwuzhumuqin Country ECO Clean Energy Co., Ltd.	RMB14.9 million	100	PRC	Vehicular fuel refilling station
Xuzhou ECO Energy Co., Ltd	RMB20.0 million	80	PRC	Vehicular fuel refilling station
Zhongwei ECO Clean Energy Co., Ltd.	RMB12.4 million	100	PRC	Vehicular fuel refilling station
察哈爾右翼前旗易高清潔能源有限公司	RMB14.9 million	100	PRC	Vehicular fuel refilling station
神木易高耀清能源有限公司	RMB38.2 million	90	PRC	Vehicular fuel refilling station
內蒙古易高清潔能源有限公司	RMB14.0 million	90	PRC	Vehicular fuel refilling station
江西易高凌峰清潔能源有限公司	RMB30.0 million	70	PRC	Vehicular fuel refilling station
邢台市易高港興清潔能源有限公司	RMB17.1 million	80	PRC	Vehicular fuel refilling station
1 錫林郭勒盟易高清潔能源有限公司	RMB14.9 million	100	PRC	Vehicular fuel refilling station
1 化德易高清潔能源有限公司	RMB14.4 million	100	PRC	Vehicular fuel refilling station
1周至易高清潔能源有限公司	RMB9.6 million	100	PRC	Vehicular fuel refilling station
2 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
<sup>1</sup> 中衛海興易高清潔能源有限公司	RMB14.8 million	100	PRC	Vehicular fuel refilling station
1 偃師易高清潔能源有限公司	RMB10.3 million	100	PRC	Vehicular fuel refilling station
<sup>1</sup> 山西忻州易高清潔能源有限公司	RMB14.9 million	100	PRC	Vehicular fuel refilling station
2 烏蘭察布市豐華商貿有限公司	RMB10.7 million	100	PRC	Vehicular fuel refilling station
<sup>†</sup> ECO Environmental Energy Investments Limited	US\$100.0 million	100	PRC	Investment holding
<sup>†</sup> ECO Environmental Resources Investments Limited	US\$299.0 million	100	PRC	Investment holding

<sup>†</sup> Wholly foreign-owned enterprises
<sup>1</sup> Newly formed during the year
<sup>2</sup> Newly acquired during the year

The following is a list of the principal subsidiaries as at 31st December 2016: (Continued)

Name	Issued share capital/ registered capital	Percentage of issued/ registered capital held	Place of incorporation/ operation	Principal activity
Other businesses	1.11/2/10.0	400		
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
<sup>†</sup> Towngas Telecom (Fengxian) Company Limited	RMB7.5 million	100	PRC	Telecommunications business
<sup>†</sup> 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	81.4	PRC	Telecommunications business
<sup>†</sup> 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	96.5	PRC	Telecommunications business
名氣通網絡(深圳)有限公司	RMB29.5 million	100	PRC	Telecommunications business
萊陽名氣通電訊有限公司	RMB10.0 million	90	PRC	Telecommunications business
Hong Kong and China Technology (Wuhan) Company Limited	RMB21.2 million	100	PRC	System Development & Consulting Services
珠海卓鋭高科信息技術有限公司	RMB4.9 million	100	PRC	System Development & Consulting Services
M-Tech Instrument (Hong Kong) Limited	HK\$100	100	Hong Kong	Gas meter and related businesses
†卓通管道系統(中山)有限公司	RMB31.0 million	100	PRC	PE piping system business
<sup>†</sup> 卓度計量技術 (深圳) 有限公司	RMB30.0 million	100	PRC	Gas meter and related businesses
U-Tech Engineering Company Limited	HK\$14.8 million	100	Hong Kong	Engineering and related businesses
P-Tech Engineering Company Limited	HK\$2	100	Hong Kong	Engineering and related businesses
Starmax Assets Limited	HK\$90.0 million	100	British Virgin Islands/ Hong Kong	Property development
Financing & securities investments				
# Eagle Legend International Limited	HK\$100	100	Hong Kong	Financing
HKCG (Finance) Limited	HK\$100	100	Hong Kong	Financing
TCCL (Finance) Limited	HK\$1	62.3	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

# Direct subsidiaries of the Company† Wholly foreign-owned enterprises

The following is a list of the principal subsidiaries as at 31st December 2016: (Continued)

Name	Issued share capital/ registered capital	Percentage of issued/ registered capital held	Place of incorporation/ operation	Principal activity
Financing & securities investments (Continued)				
Danetop Services Limited	US\$1	100	British Virgin Islands/ Hong Kong	Securities investment
Investstar Limited	HK\$100	100	Hong Kong	Securities investment
Superfun Enterprises Limited	US\$1	100	British Virgin Islands/ Hong Kong	Securities investment
Upwind International Limited	US\$1	100	British Virgin Islands/ Hong Kong	Securities investment
Investment holding				
Apex Time Holdings Limited	HK\$100	100	Hong Kong	Investment holding
ECO Coal Chemical Technology (Inner Mongolia) Limited	HK\$100	100	Hong Kong	Investment holding
ECO Environmental Investments Limited	HK\$2	100	Hong Kong	Investment holding
ECO Environmental Energy (China) Ltd.	HK\$100	100	Hong Kong	Investment holding
ECO Environmental Investments (China) Limited	HK\$100	100	Hong Kong	Investment holding
ECO Natural Gas (China) Limited	US\$1	100	British Virgin Islands/ Hong Kong	Investment holding
ECO Natural Gas (Xian) Limited	US\$1	100	British Virgin Islands/ Hong Kong	Investment holding
ECO Orient Energy (Thailand) Ltd.	US\$12,000	100	Bermuda	Investment holding
Fanico Investments Limited	HK\$1	100	Hong Kong	Investment holding
G-Tech Piping Technologies Limited	HK\$100	100	Hong Kong	Investment holding
Hong Kong & China Gas (Anhui) Limited	US\$1	100	British Virgin Islands/ Hong Kong	Investment holding
Hong Kong & China Gas (Changzhou) Limited	US\$1	100	British Virgin Islands/ Hong Kong	Investment holding
Hong Kong & China Gas (Chaozhou) Limited	US\$1	100	British Virgin Islands/ Hong Kong	Investment holding
Hong Kong & China Gas (China) Limited	HK\$10,000	100	British Virgin Islands	Investment holding
Hong Kong & China Gas (Danyang) Limited	US\$1	100	British Virgin Islands/ Hong Kong	Investment holding
Hong Kong & China Gas (Fengcheng) Limited	US\$1	100	British Virgin Islands/ Hong Kong	Investment holding
Hong Kong & China Gas (Guangzhou) Limited	HK\$1,000	100	British Virgin Islands/ Hong Kong	Investment holding
Hong Kong & China Gas (Hebei) Limited	US\$1	100	British Virgin Islands/ Hong Kong	Investment holding
Hong Kong & China Gas (Jilin Province) Limited	US\$1	100	British Virgin Islands/ Hong Kong	Investment holding

The following is a list of the principal subsidiaries as at 31st December 2016: (Continued)

Name	Issued share capital/ registered capital	Percentage of issued/ registered capital held	Place of incorporation/ operation	Principal activity
Investment holding (Continued)				
Hong Kong & China Gas (Jinan) Limited	US\$1	100	British Virgin Islands/ Hong Kong	Investment holding
Hong Kong & China Gas (Jintan) Limited	US\$1	100	British Virgin Islands/ Hong Kong	Investment holding
Hong Kong & China Gas (Nanjing) Limited	US\$1	100	British Virgin Islands/ Hong Kong	Investment holding
Hong Kong & China Gas (Panyu) Limited	HK\$1,000	100	British Virgin Islands/ Hong Kong	Investment holding
Hong Kong & 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 & 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
Hong Kong and China Gas (Hainan) Limited	HK\$100	100	Hong Kong	Investment holding
Hong Kong and China Gas (Jiangxi) Limited	HK\$100	100	Hong Kong	Investment holding
Hong Kong and China Gas (Jingxian) Limited	HK\$100	100	Hong Kong	Investment holding
Hong Kong and China Gas (Xinmi) Limited	HK\$100	100	Hong Kong	Investment holding
Hong Kong and China Gas (Zhangshu) Limited	HK\$100	100	Hong Kong	Investment holding

The following is a list of the principal subsidiaries as at 31st December 2016: (Continued)

Name	lssued share capital/ registered capital	Percentage of issued/ registered capital held	Place of incorporation/ operation	Principal activity
Investment holding (Continued)				
Hong Kong and China Gas (Zhengzhou) Limited	HK\$100	100	Hong Kong	Investment holding
Hong Kong and China Water (Anhui Jiangbei) Limited	HK\$100	100	Hong Kong	Investment holding
M-Tech Instrument Corporation (Holding) Limited	HK\$119	100	Hong Kong	Investment holding
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/ Hong Kong	Investment holding
TGT Destic Company Limited	HK\$100	100	Hong Kong	Investment holding
<sup>1</sup> TGT Shanghai Data Services Company Limited	HK\$100	100	Hong Kong	Investment holding
TGT TGgo Company Limited	US\$1	100	British Virgin Islands/ Hong Kong	Investment holding
# Towngas International Company Limited	US\$1	100	British Virgin Islands/ Hong Kong	Investment holding
<sup>#</sup> Towngas Investment Company Limited	НК\$2	100	Hong Kong	Investment holding
Townags Telecommunications (China) Limited	US\$1	100	British Virgin Islands/ Hong Kong	Investment holding

<sup>1</sup> Newly formed during the year<sup>#</sup> Direct subsidiaries of the Company

The above table lists the subsidiaries of the Group which, in the opinion of the directors of the Company, principally affected the results or assets of the Group. To give details of other subsidiaries would, in the opinion of the directors of the Company, result in particulars of excessive length.

# **CORPORATE INFORMATION**

#### Chairman

LEE Shau Kee

#### Directors

LEUNG Hay Man\* Colin LAM Ko Yin David LI Kwok Po\* LEE Ka Kit Alfred CHAN Wing Kin LEE Ka Shing POON Chung Kwong\* Peter WONG Wai Yee

\* Independent Non-executive Director

Managing Director Alfred CHAN Wing Kin

Executive Director and Chief Operating Officer – Utilities Business

Peter WONG Wai Yee

Chief Financial Officer and Company Secretary John HO Hon Ming

#### **Registered Office**

23rd Floor, 363 Java Road, North Point, Hong Kong

#### **Company's Website**

www.towngas.com

#### Share Registrar

Computershare Hong Kong Investor Services Limited Shops 1712-1716, 17th Floor, Hopewell Centre, 183 Queen's Road East, Wanchai, Hong Kong Tel: 2862 8555 Fax: 2865 0990

#### Auditor

PricewaterhouseCoopers Certified Public Accountants 22nd Floor, Prince's Building, Central, Hong Kong

#### **Principal Bankers**

The Hongkong and Shanghai Banking Corporation Limited 1 Queen's Road Central, Hong Kong

The Bank of East Asia, Limited 10 Des Voeux Road Central, Hong Kong

#### **Investor Relations**

Corporate Investment 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: ccd@towngas.com

Company Secretarial Department Tel: 2963 3292 Fax: 2562 6682 e-mail: compsec@towngas.com

# FINANCIAL CALENDAR

Half-Year Results	Announced on Monday, 22nd August 2016
Full-Year Results	Announced on Thursday, 16th March 2017
Annual Report	Posted to Shareholders on Thursday, 20th April 2017
Register of Members	(i) To be closed from Friday, 2nd June 2017 to Wednesday, 7th June 2017, 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 Tuesday, 13th June 2017 to Thursday, 15th June 2017, 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 Wednesday, 7th June 2017
Dividends – Interim	HK12 cents – Paid on Monday, 3rd October 2016
– Final (Proposed)	HK23 cents – Payable on Friday, 23rd June 2017
Bonus Issue of Shares (Proposed)	Share certificates to be posted to Shareholders on Friday, 23rd June 2017

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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The Hong Kong and China Gas Company Limited 香港中華煤氣有限公司

23rd Floor, 363 Java Road, North Point, Hong Kong www.towngas.com

