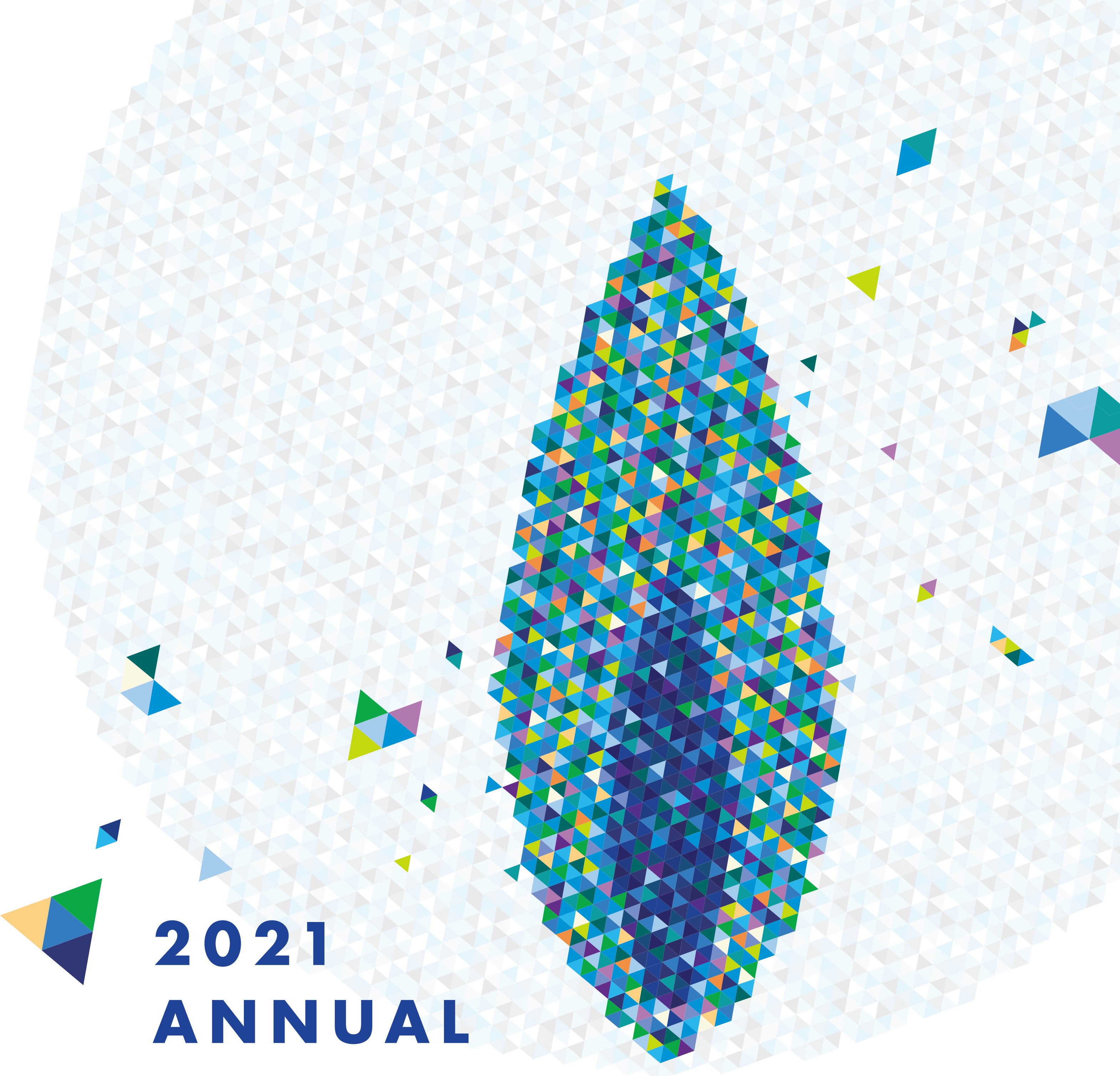


2021 ANNUAL REPORT

The Hong Kong and China Gas Company Limited
(STOCK CODE: 3)

Go Green Every Day

CONTENTS


Since 1862
Smart Energy
for a Brighter Future

2021 Awards and Recognitions

- Greater China Business Sustainability Index
- Greater Bay Area Business Sustainability Index
- Hong Kong Business Sustainability Index

Ranked First Exemplar Level

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

Hong Kong Sustainability Award

- GRAND AWARD (LARGE ORGANISATIONS)

Most Respected Organisation Award

Award for Excellence in Training and Development

- GOLD AWARD

The Hong Kong Management Association

BOCHK Corporate Environmental Leadership Awards 2020

- MANUFACTURING SECTOR – GOLD AWARD
- SUSTAINABLE BUSINESS AWARD

Federation of Hong Kong Industries

IFAPC Outstanding Listed Company Award 2021

The Hong Kong Institute of Financial Analysts and Professional Commentators Limited

Global 2000

Forbes

Constituent Companies of the Hang Seng Corporate Sustainability Index Series

Hang Seng Indexes Company Limited

| TOWNGAS AND TOWNGAS SMART ENERGY |

Industry Cares Recognition Scheme 2021

- OUTSTANDING CARING AWARD (ENTERPRISE GROUP)
- THE MOST INNOVATIVE AWARD (ENTERPRISE GROUP)

Federation of Hong Kong Industries

2020/21 The Community Chest Corporate & Employee Contribution Programme

- PLATINUM AWARD

The Community Chest

Caring Company Logo

The Hong Kong Council of Social Service

2020 The Highest Service Hour

(Private Organisations – Best Customer Participation)

- HONOUR AWARD

Social Welfare Department

CarbonCare® ESG Label 2021

- LEVEL 4 (The highest rating)

CarbonCare InnoLab and CarbonCare Asia

International Innovative Energy Project of the Year Award 2021

The Association of Energy Engineers

The 20th Hong Kong Occupational Safety and Health Award

- SAFETY PERFORMANCE AWARD – OUTSTANDING AWARD
- OSH ENHANCEMENT PROGRAM AWARD – GOLD AWARD
- OSH INNOVATIVE AWARD – GOLD AWARD
- OSH MVP AWARD 15 YEARS PLUS

Occupational Safety and Health Council

Our Journey to a Sustainable Future

We contributed to the Chinese mainland's "30-60 dual carbon targets" of peak carbon emissions by 2030 and carbon neutrality by 2060 through a series of Environmental, Social and Governance (ESG) initiatives in 2021. By embarking on this journey, we are not only benefiting society and our own business growth but also creating enhanced long-term value for our stakeholders.

Carbon Neutrality Commitment

Towngas is committed to becoming carbon neutral by 2050 through energy transition and innovation, including the development of renewable energy, waste-to-energy, green hydrogen, efficiency improvements, carbon management, and collaborative projects with universities and research institutes.

Enhanced ESG Policies

We updated our Group ESG Policy along with 23 relevant policies that govern our approach to ESG in areas such as climate change, social investment, stakeholder engagement and corporate governance.

Renewables

- **Landfill gas** in our fuel mix in Hong Kong since 1999 (135,146 GJ in 2021)
- Over **110** renewable energy projects planned and **32** zero-carbon smart industrial parks negotiated for development
- Production of **biofuels** from waste-based bio-grease in Jiangsu province
- Conversion of organic waste for **bio-natural gas** projects in Jiangsu and Anhui provinces

New Name, New Direction

In 2021, Towngas China was renamed Towngas Smart Energy Company Limited. This name change repositions us as a leading integrated clean energy supplier, with technology and innovation as our focus. Through our clean and reliable energy supply, we are supporting the objective of carbon neutrality.

New Carbon Reduction Targets

We have set two new targets for cutting greenhouse gas (GHG) emissions: a reduction of our group operational GHG emissions by 10 per cent by 2025 (as compared with the 2020 baseline), and a reduction of 10 million tonnes of GHG emissions for the environment per year by 2025.

Hydrogen as Energy

The town gas we supply in Hong Kong is 49 per cent rich in hydrogen. We have been exploring the feasibility of separating hydrogen from town gas for clean energy applications such as hydrogen fuel cells for buses.

Green Finance

We continued our green finance initiatives and concluded ESG loans at a total value of HK$2 billion, linked with selected ESG key performance indicators.

2021 Credit Ratings

Moody's: **A1**	S&P Global: **A-**

Protecting the Environment

- Greenhouse gas emissions from major gas production equipment in Hong Kong: **339,068 metric tonnes** in terms of CO_2 equivalent
- Carbon intensity of our gas production in Hong Kong: **0.588 kg** CO_2e/unit of town gas; **reduced by 23%** compared with 2005

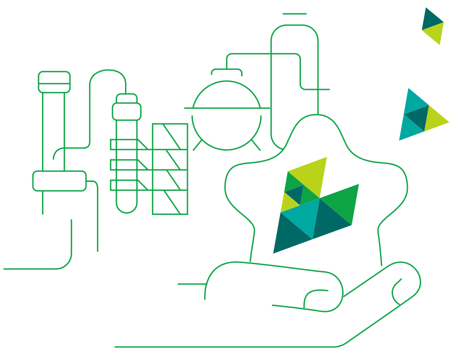
Care for the Community

We help the less fortunate in society by providing resources and opportunities.

- We devoted a total of over **592,700** volunteer hours in Hong Kong and the Chinese mainland
- **18,960** fresh food packs were delivered to 830 families in need in the Love On Delivery programme
- Our **Chef Anchor 2.0** programme continued to provide procedural memory cooking classes for patients with Mild Cognitive Impairment as well as their carers
- Over **44,000** underprivileged households benefited from Towngas Concession schemes

Drive for Smart Energy Solutions

The first-ever TERA-Award was organised to explore innovative solutions in smart energy for a sustainable future. Over 200 entries from 23 countries and regions were received.



Ensuring Health and Safety

HONG KONG

- Safety training: **10,104** hours
- Uninterrupted gas supply: **99.996%**
- Record low number of gas incidents in 2021 and **↓10%** in last five years

MAINLAND

- Safety training: **1,230,136** hours
- Company-liable accident: **0**
- Number of gas pipe network leakages per 100 km **↓28.8%** compared with the previous year
- Major incident in chemical plants: **0**

Sustainable Workforce

We offer career and development opportunities that enable our people to grow and flourish.

- Training per employee:
  21.6 hours (Hong Kong)
  51.5 hours (Mainland Utilities)
- Diversity and inclusion:
  14 people with disabilities hired
  1/4 of senior executives are women

Business Coverage in 2021

Based in Hong Kong,
Towngas has a portfolio comprising

514 projects*

in 28 provincial regions in the Chinese mainland, as well as one in Thailand.

Towngas (0003)

- Towngas Group Hong Kong headquarters
- Piped city-gas projects
- Liquefied natural gas receiving stations
- Provincial natural gas pipeline networks
- City high pressure pipeline networks/ underground gas storages
- Upstream projects
- Smart energy
- CNG/LNG refilling stations
- Water/Waste treatment
- Telecommunications
- Coal mining, logistics and coal-based chemicals
- Biomass
- Oilfield
- Others

Towngas Smart Energy (1083)

- Piped city-gas projects
- City high pressure pipeline networks
- Upstream project
- Distributed energy systems
- CNG refilling stations
- Smart energy
- Others

*2020 year end: 436 projects, inclusive of city-gas projects re-invested by the Group's companies


Heilongjiang
Jilin
Liaoning
Inner Mongolia
Beijing
Hebei
Shanxi
Ningxia
Qinghai
Shandong
Yellow Sea
Henan
Jiangsu
Shaanxi
Sichuan
Anhui
Shanghai
Hubei
Chongqing
Zhejiang
East China Sea
Hunan
Guizhou
Jiangxi
Fujian
Guangdong
Yunnan
Guangxi
Hong Kong
Hainan

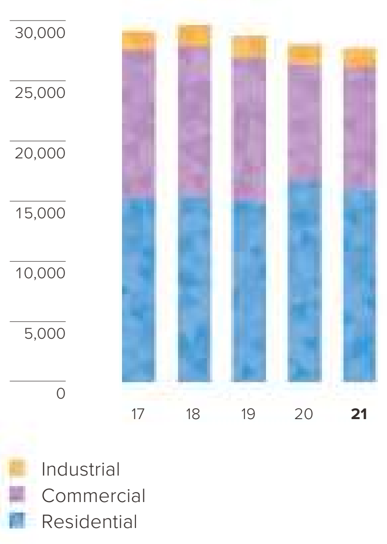
Business Highlights

	2021	2020	Change %
Operating (Company)			
Number of Customers as at 31st December	**1,964,937**	1,943,777	+1
Number of Customers per km of Mains	**569**	564	+1
Installed Capacity, thousand m^3 per hour	**534**	525	+2
Peak Hourly Demand, thousand m^3	**557**	511	+9
Town Gas Sales, million MJ	**27,677**	27,947	-1
Number of Employees as at 31st December	**2,106**	2,130	-1
Number of Customers per Employee	**933**	913	+2
Financial			
Revenue, HK million dollars	**53,564**	40,927	+31
Profit Attributable to Shareholders, HK million dollars	**5,017**	6,007	-16
Dividends, HK million dollars	**6,531**	6,220	+5
Shareholders			
Issued Shares, million of shares	**18,660**	17,771	+5
Shareholders' Funds, HK million dollars	**67,426**	66,759	+1
Earnings per Share, HK cents	**26.9**	32.2*	-16
Dividends per Share, HK cents	**35.0**	33.3*	+5
Shareholders' Funds, HK dollars per share	**3.61**	3.58*	+1
Number of Shareholders as at 31st December	**13,680**	13,965	-2

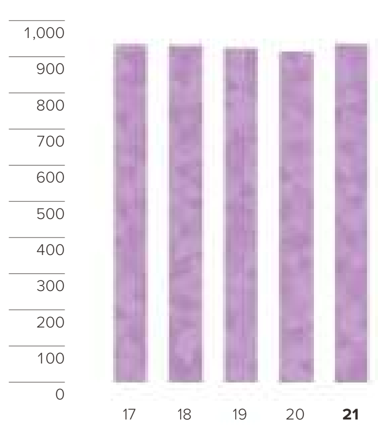
* Adjusted for the bonus share issue in 2021

Five-Year Summary

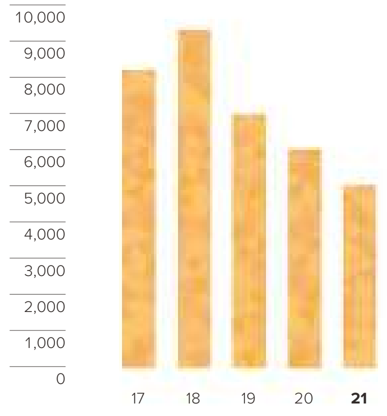
Town Gas Sales
Company (million MJ)



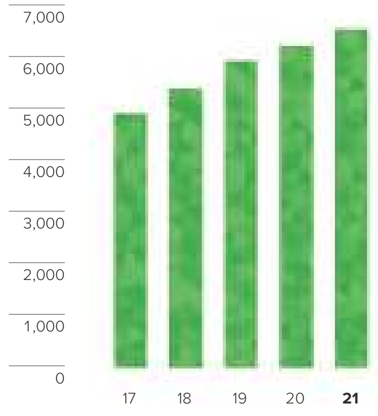
Number of Customers per Employee
Company



Profit Attributable to Shareholders
(HK$ million)



Dividends
(HK$ million)



Chairmen's Statement

The Year's Results

The pneumonia-causing coronavirus disease (COVID-19) continued to spread globally in 2021, with fluctuating outbreaks in various places. Major economies, with extensive vaccination coverage, gradually resumed economic activities and their demand for commodities rebounded, driving the Chinese mainland's exports to record good growth. As the epidemic situation in Hong Kong fluctuated during the year, the resumption of quarantine-free cross-border travel with the Chinese mainland was still suspended, seriously impacting catering, tourism and retail sectors in particular. Facing the challenges arising from the ongoing epidemic, the Group has proactively responded by continuing to broaden sources of revenue and cut expenditure and endeavouring to develop new businesses by leveraging the scale potential and the comprehensive advantages it had established over the years. In addition, benefiting from the national economic recovery and environmental protection policies, the Group's natural gas and utility businesses on the mainland continued to progress steadily. During the year, the Group's volume of gas sales recorded good growth. However, in the second half of the year, international commodity and energy prices rose sharply, the upstream natural gas price soared and the unit margin of gas sales shrank.

The Group's principal businesses' operating profit after taxation for the year amounted to HK$6,821 million, a decrease of HK$413 million, down by 5.7 per cent, compared to 2020. During the year, as the Group wrote

Lee Ka-shing

Lee Ka-kit

off and impaired some of the production facilities of a chemical plant and telecommunications network facilities on the Chinese mainland, and made asset provision for certain gas refilling stations which had ceased operation, a provision of approximately HK$1,500 million in total was made. Inclusive of this one-off provision, profit after taxation attributable to shareholders of the Group for the year amounted to HK$5,017 million, a decrease of HK$990 million, down by 16.5 per cent, compared to 2020. Earnings per share for the year amounted to HK26.9 cents.

During the year under review, the Group invested HK$8,387 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 the Chinese mainland.

Development Strategy of the Group

In September 2020, the Central Government announced its "dual carbon" goals to address global climate change: endeavour to reach carbon dioxide emissions peak by 2030 and achieve carbon neutrality by 2060. The Group is seeking to seize the sustainable development opportunities brought by the national "dual carbon" goals and proactively promote low-carbon transformation through its green businesses such as city-gas, smart energy, biomass, urban waste treatment and utilisation.

In the process of achieving carbon neutrality across the country, extensive use of natural gas helps promote the low-carbon transformation of the national energy mix. As natural gas is the cleanest fossil energy source, its use to substitute coal and petroleum would effectively help reduce air pollution and carbon emissions. The mainland has built large-scale natural gas infrastructure facilities and is accelerating the establishment of systems for natural gas production, supply, storage and marketing to enhance gas supply capabilities. Meanwhile, renewable energy sources such as photovoltaics, wind energy, hydrogen energy and biomass energy are poised to enter a state of rapid development.

The Group has always placed emphasis on clean energy in formulating its development strategies. Over the years, the Group has developed city-gas business advocating the use of natural gas on the Chinese mainland and now possesses the advantages of having a huge market and customer resources. With the support of the current national environmental protection policies, the Group is proactively developing the smart energy business. Adoption of integrated energy solutions, decarbonisation and digitalisation will become the three major business directions in the future. The Group is focusing on industrial parks and proactively investing in distributed photovoltaics, charging and swapping power stations, energy storage, multi-energy supply (cooling, heat, electricity) and other projects within the industrial parks. The Group is striving to build a smart energy ecology platform and promote the digital transformation of energy, providing industrial and commercial customers with value-added services including energy efficiency management, energy and carbon trading, thus injecting new impetus into the Group's business growth.

In order to promote the transformation of energy innovation and the development of new technologies, the Group and State Power Investment Corporation Limited jointly launched the TERA-Award smart energy innovation competition in 2021 to collect ideas on innovative technologies, products and solutions in the field of smart energy from around the world. The "Liquid Sunshine Methanol" project from the Dalian Institute of Chemical Physics, Chinese Academy of Sciences won the Gold Award in this inaugural competition. The Group will further promote putting the winning projects into practical use, in an effort to help the country achieve the "dual carbon" goals.

In January this year, the Company and IDG Capital announced the launch of China's first Zero-carbon Technology Investment Fund focusing on technology investment and business applications, with a total scale of RMB10 billion, initially raising RMB5 billion in the first phase. The fund will focus on investing in innovation fields relating to zero-carbon technologies, including renewable energy, energy storage, smart energy grid, hydrogen energy, carbon trading and management projects. The fund will promote outstanding investee companies to realise the rapid iteration of energy innovative technologies and products through practical applications.

Expanding the proportion of renewable energy used and gradually replacing fossil energy consumption has become the main policy instrument for various advanced economies to reduce carbon emissions. Over the years, the Group has invested resources in in-house research and development and application of environmental protection and energy technologies, promoting the utilisation of biomass waste by developing commercialised advanced technologies to transform it into biomass fuels, chemical feedstocks and materials, as well as other related green products to supply to the growing environmental protection and carbon reduction market.

In tandem with "Hong Kong's Climate Action Plan 2050" carbon reduction strategy of the Government of the Hong Kong Special Administrative Region ("HKSAR"), the Company is also proactively discussing with government departments, franchised bus companies and the shipping industry to study the possibility of extracting a certain amount of hydrogen, which constitutes 49 per cent of our town gas composition in the pipelines, for Hong Kong's transportation industry as a fuel alternative, so as to promote more green energy applications in Hong Kong.

In summary, the Group's future development strategy is to harness its city-gas businesses to continue to promote natural gas as clean energy. At the same time, the Group will accelerate the development of renewable energy production and utilisation by, on the one hand, focusing on distributed photovoltaic power generation and digital management in its smart energy development, and on the other hand, by producing biomass fuels, biomass chemical products and materials on a commercial scale using agricultural waste through proactive research and development of innovative technologies. Combined with the development of sewage, food and urban waste treatment businesses, these diversified initiatives will pave the way for the Group towards greater use of green energy.

The Group will continue to invest resources in the research and development of more innovative environmentally friendly technologies, in accordance with its existing business development strategies, to achieve sustainable business growth, fulfil its responsibilities in protecting the environment, and create a better future for the next generation.

Environmental, Social and Governance

The Group has always been proactively implementing the concept of sustainable development, firmly taking environmental, social and governance ("ESG") issues as the primary consideration in business operations, and is constantly striving to enhance the management level in this area. The Company has established an ESG Committee responsible for promoting and implementing various plans related to it, and the Board of Directors regularly reviews important issues. The Company has also formulated a comprehensive ESG Policy to encourage all project companies, suppliers and business partners to make references and implement. In 2021, the Group won several ESG-related awards in Greater China, the Greater Bay Area and Hong Kong, demonstrating its leading status in ESG performance around the area.

Town Gas Business in Hong Kong

Hong Kong continued to be impacted by the COVID-19 pandemic in 2021. Inbound tourism has come to a standstill for two years. With a steady increase of the vaccination rate, alongside related epidemic prevention and control measures, as well as the distribution of consumption vouchers to the public in several batches by the HKSAR Government since August 2021 to stimulate local consumption, the business environment of the catering sector slightly improved. The local epidemic situation gradually subsided during the fourth quarter last year. As a result, the volume of commercial gas sales increased. Nevertheless, as the average temperature in Hong Kong during 2021 was higher than that in 2020, the volume of residential gas sales was affected. Overall, the total volume of gas sales in Hong Kong for 2021 was approximately 27,677 million MJ, a slight decrease of 1 per cent, in contrast to an 8.8 per cent increase in the number of appliances sold resulting from a rise in new property move-ins due to a slowdown of the epidemic, both compared to 2020.

As at 31st December 2021, the number of customers of the Company was 1,964,937, an increase of 21,160, representing a slight increase of 1.1 per cent compared to the number at the end of 2020.

The Company continues to proactively assist the catering sector, which has been significantly hit by the epidemic, by fully supporting its promotional activities to aid in business recovery. Additionally, the Company offered incentives during the year to encourage citizens to get vaccinated, hoping the community could overcome the adverse impact of the epidemic with the collective efforts from various sectors of the society.

Businesses on the Chinese Mainland

The Group's mainland businesses continued to progress steadily during 2021. Overall, including the projects of the Group's subsidiary, Towngas Smart Energy Company Limited ("Towngas Smart Energy", formerly known as Towngas China Company Limited; stock code: 1083.HK), the Group had 514 projects (inclusive of city-gas projects re-invested by the Group's companies) (2020 year end: 436 projects) on the Chinese mainland as at the end of 2021, spread across 28 provincial regions. These projects encompass upstream, midstream and downstream natural gas sectors, environmentally-friendly energy, smart energy, water sectors and urban waste treatment.

Utility Businesses

The Chinese mainland's prevention and control measures against the COVID-19 epidemic targeting "dynamic zero infection" have achieved remarkable results. Coupled with a rebound in demand for commodities globally and an improvement in the local consumption level, the mainland economy recorded an 8.1 per cent increase in the gross domestic product in 2021 compared to 2020. Benefiting from the momentum of the mainland's economic recovery, the Group's utility businesses recorded stable growth during the year, with a significant increase in the volume of gas sales and water sales compared to 2020.

As at the end of 2021, inclusive of Towngas Smart Energy, the Group had a total of 303 city-gas projects on the mainland (inclusive of city-gas projects re-invested by the Group's companies) (2020 year end: 282 projects). The total volume of gas sales for these projects for 2021 was approximately 31,080 million cubic metres, an increase of 16 per cent compared to 2020. As at the end of December 2021, the Group's mainland gas customers stood at approximately 35.03 million, an increase of 10 per cent over 2020.

The Group's smart energy business development progressed well in 2021, with more than 110 renewable energy projects planned across 21 provincial regions and 32 zero-carbon smart industrial parks negotiated for development. These projects encompass multi-energy supply (cooling, heat, electricity), photovoltaics, energy storage, charging and swapping power stations, comprehensive energy services for industrial and commercial customers, with related project companies subsequently formed. Additionally, the Group is conducting in-depth exploration of the potential energy reduction by industrial and commercial customers in the industrial parks and developing a series of value-added services such as energy efficiency management, energy and carbon trading. Due to the industrial parks' huge and diverse energy demand, prospects for developing renewable energy services in industrial parks are very broad.

The Group's natural gas storage facility in underground salt caverns in Jintan district, Changzhou city, Jiangsu province has achieved notable economic benefits since its commissioning and is successfully interconnected with the West-to-East Gas Pipeline and the Sichuan-to-East Gas Pipeline, two large-scale national-level natural gas transmission pipelines. The total planned storage capacity of the facility is 1.1 billion cubic metres. Located in economically active eastern China with a superior geographical location, this storage facility, the first of its kind built by a city-gas enterprise, enables city-gas projects in the region to supplement gas supply during the peak winter period. In the longer term, the facility is set to supply gas to other areas through interconnected pipeline networks and deploy gas sources between regions relying on the extensive coverage of the national pipeline network.

The Group's storage tank project at the liquefied natural gas ("LNG") receiving terminal in Caofeidian district, Tangshan city, Hebei province is progressing well. The project includes the right to use two storage tanks of 400,000 cubic metres in total alongside a jetty for importing 1 million tonnes of LNG per annum for a contract term of 50 years. This project, which will be gradually commissioned starting from the end of 2022, will significantly enhance the Group's gas storage capacity and alleviate the need to build separate gas storage facilities by different companies under the Group. Through this project, the Group can also purchase gas directly from overseas to reduce the cost of natural gas.

Municipal environmental governance poses great challenges to the Chinese mainland but also brings business investment opportunities.

Leveraging the rich experience in sewage treatment gained from its Hua Yan Water business, the Group successfully developed an urban organic waste resource utilisation project in Suzhou Industrial Park, Jiangsu province in 2019. With a daily processing capacity of 800 tonnes, this project has cumulatively processed more than 300,000 tonnes of organic waste and produced nearly 13 million cubic metres of bio-natural gas for the park's use.

In 2020, the Group's Hua Yan Environmental in Changzhou city, Jiangsu province joined with the municipal government to proactively develop businesses encompassing waste incineration for power generation, sewage treatment, food waste treatment and urban sanitation. A food waste utilisation project in Tongling city, Anhui province acquired in 2020, and a municipal sewage treatment project in Wujin district, Changzhou city, Jiangsu province acquired in 2021 have cumulatively processed more than 70,000 tonnes of organic waste and 80 million tonnes of sewage. The waste transfer business and waste sorting collection business in Wujin district, Changzhou city also started operations in November 2021.

Operation and management of businesses encompassing midstream natural gas, city-gas, water and municipal environmental protection businesses are creating ever-greater synergy. Furthermore, these businesses generate a stable income, and the Group will therefore keep on investing in high-quality utility projects of such kinds.

Emerging Environmentally-Friendly Energy Businesses

The research and development team of ECO Environmental Investments Limited ("ECO") under the Group has been committed to developing biomass utilisation for many years. Several patented technologies that target the utilisation of inedible bio-grease and agricultural waste as two major feedstocks have been developed and achieved scientific breakthroughs, forming innovative production processes that are now being implemented in several projects.

The first project, located in Jiangsu province, which converts inedible bio-grease feedstock into hydro-treated vegetable oil ("HVO") using ECO's proprietary technology, has gained the accreditation under the International Sustainability and Carbon Certification Scheme (ISCC). Being qualified as an advanced biofuel defined by the European Union, ECO's HVO is mainly for the European markets. Following the successful implementation of this project and expansion of the European markets, ECO is taking steps to further enhance the HVO production capacity and to implement the technology it has successfully developed for the production of sustainable aviation fuel (SAF), helping to further establish its leading position in the field of advanced biofuel business.

Besides, the two pilot projects located in Tangshan city and Cangzhou city, Hebei province, are using another set of proprietary technologies to refine agricultural waste through hydrolysis into a product scope encompassing biofuels, bio-chemicals and bio-materials. Cellulosic ethanol, being the main product, is yet another highly demanded advanced biofuel as defined by the European Union.

The Group established a new business platform, EcoCeres, Inc., at the end of 2021, which integrates the talents, patented technologies, production facilities, scientific research facilities and other assets related to biomass utilisation business, and introduces new investors to this platform to jointly develop a green and sustainable biomass business. EcoCeres, Inc. successfully raised a total of US$108 million in funding in December 2021 and February 2022 from an investor, Kerogen Capital, a private equity fund having a focus on energy transition.

The country's "dual carbon" goals also bring other new energy businesses opportunities. ECO's clean coal chemical business in Inner Mongolia Autonomous Region has achieved certain results after years of equipment renovation to reduce carbon emissions. A new phase of the production plan to introduce waste resources to replace raw coal has made good progress, expecting to produce high value-added low-carbon products for domestic and foreign markets in 2023. In addition, the LNG business has gained momentum with the commissioning of a new plant located in the Ningxia Hui Autonomous Region after a successful trial operation. The plant uses local coke oven gas as the feedstock to produce LNG, thus reducing carbon emissions of the coking plant and also providing the market nearby with clean vehicular energy and supplementing gas sources for downstream natural gas customers.

Towngas Smart Energy Company Limited

(Stock Code: 1083.HK)

Towngas Smart Energy, a subsidiary of the Group, recorded a profit after taxation attributable to its shareholders, excluding change in fair value of derivative component of convertible bonds, amounting to HK$1,612 million for the year, an increase of approximately 11 per cent compared to 2020. Including change in fair value of derivative component of convertible bonds, profit after taxation attributable to its shareholders amounted to HK$1,253 million for the year, a decrease of approximately 13 per cent compared to 2020. As at the end of 2021, the Group held approximately 2,085 million shares in Towngas Smart Energy, representing approximately 65.98 per cent of Towngas Smart Energy's total issued shares.

In November 2021, Affinity Equity Partners, a well-known private equity fund, invested HK$2.8 billion in Towngas Smart Energy through subscription of new shares and convertible bonds, based on its recognition and belief that Towngas Smart Energy possesses the substantial potential and overall advantages in the field of renewable energy and clean energy. This strategic investment enables Towngas Smart Energy to have sufficient funds to support its development of renewable energy projects, promoting the energy industry's transformation to a lower carbon and more efficient direction.

Climate crisis has become a common challenge faced by the world. Given the national "dual carbon" goals, the smart energy industry foresees promising development prospects. There are enormous business opportunities for advocating the use of city-gas and renewable energy in parallel. With China's accelerated economic development and rapid urbanisation, exploring an innovative roadmap for zero-carbon development in urban areas has become the basis for achieving nationwide "carbon neutrality". Based on the technologies of cloud computing, big data, the Internet of Things etc., the Group is establishing an integrated energy system encompassing multi-energy supply, photovoltaics, energy storage, as well as charging and swapping power stations in industrial parks to implement decarbonisation and digitalisation of industrial park energy management, helping to facilitate the construction of zero-carbon cities.

Looking forward, Towngas Smart Energy will continuously leverage synergies with the Group and its approximately 400,000 industrial and commercial customers, 50,000 employees as well as its large-scale energy storage technologies to further accelerate the development and establishment of zero-carbon smart industrial parks. Meanwhile, Towngas Smart Energy will consistently provide safe, high-quality products and services to its sizeable residential gas customers.

The Group continued to enhance the sale of its Bauhinia brand. Apart from the sale of gas appliances, ranging from gas stoves, water heaters, range hoods and gas dryers, as well as customised kitchen cabinets and smart kitchen equipment, the Group also develops a heating business. Focusing on providing "comfortable" and "healthy" lifestyles, the Group aims at providing customers with one-stop and diversified quality services for daily life.

The Group has diversified its presence in upstream LNG terminals, production, storage, trade etc., to reduce the cost of gas sources in downstream cities and better seize gas source opportunities arising from the "X+1+X" natural gas reforms to maintain a competitive edge. Construction of Towngas Smart Energy's shale gas liquefaction plant in Weiyuan county, Sichuan province is expected to be completed in early 2023, which will become its gas storage and peak-shaving base in southwestern China. Acquisition of 25 per cent equity interest in Shanghai Gas Co., Ltd. ("Shanghai Gas") has been completed during the year. The two LNG terminals operated by Shanghai Gas can be used to further secure the supply of gas sources for companies under the Group.

Towngas Smart Energy added 40 new projects to its portfolio during 2021, comprising 35 renewable energy projects and five piped-gas projects. The total number of projects held by Towngas Smart Energy was 244 as at the end of 2021.

Financing Programmes

In order to tap funding in a timely and flexible manner, the Group established a medium term note programme in 2009 under HKCG (Finance) Limited, a wholly-owned subsidiary of the Group. Medium term notes totalling HK$1,339 million, with a tenor of 3 years, were issued in 2021. In line with the Group's long-term business investments, as at 31st December 2021, the total nominal amount of medium term notes issued has reached HK$21 billion with tenors ranging from 3 to 40 years, mainly at fixed interest rates with an average of 2.9 per cent per annum and an average tenor of 15 years. The Group updated the programme during the year and increased the maximum issue size from US$3 billion to US$5 billion, introducing more flexibility for future financing.

Meanwhile, the Group's another listed company, Towngas Smart Energy, established a new medium term note programme through a subsidiary with a maximum issue size of US$2 billion in June 2021. A medium term note of RMB750 million with a tenor of 3 years and a coupon rate at 3.4 per cent per annum was firstly issued in November 2021. This helps strengthen its financial position and expands its sources of funding.

Furthermore, the Group also made use of perpetual securities for long-term funding. As at 31st December 2021, the Group had Perpetual Subordinated Capital Securities (the "Perpetual Securities") of US$300 million, issued in February 2019, with a coupon rate at 4.75 per cent per annum. The Perpetual Securities are redeemable at the option of the Group in February 2024 or thereafter every six months on the coupon payment date.

Board of Directors

The Company announced on 19th March 2021 that Mr. Alfred Chan Wing-kin, Managing Director, will retire with effect from the conclusion of the annual general meeting to be held in 2022.

Mr. Chan joined the Company in 1992. He was appointed to the Board in January 1997 and as the Managing Director of the Company in May 1997. During his tenure, he has made valuable contributions and laid down a solid foundation for the Company in various aspects, including safety, services, environmental protection and innovation. Over the years, the Company has been highly recognised in the community. Mr. Chan led the team to develop clean energy, utility businesses, environmental protection and other businesses on the Chinese mainland and developed a sizeable customer base, which is conducive to the smooth development of the Group's new businesses on the mainland. On behalf of the Board of Directors, we would like to thank Mr. Chan and wish him a joyful life after retirement.

Mr. Peter Wong Wai-yee, Deputy Managing Director, will succeed as Managing Director.

Employees and Productivity

As at the end of 2021, the number of employees engaged in the town gas business in Hong Kong was 2,106 (2020 year end: 2,130), the number of customers was 1,964,937, and each employee served the equivalent of 933 customers, an increase of 2.2 per cent compared to 2020. Inclusive of employees engaged in businesses such as telecommunications, liquefied petroleum gas vehicular refilling stations and contractual engineering works, the total number of employees engaged in businesses in Hong Kong was 2,442 as at the end of 2021 compared to 2,495 as at the end of 2020. Related manpower costs amounted to HK$1,247 million for 2021, an increase of HK$14 million compared to 2020. 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 enhance the quality of the Group's customer services constantly.

Exclusive of businesses in Hong Kong, the total number of the Group's employees on the Chinese mainland and other places outside Hong Kong was approximately 52,860 as at the end of 2021, an increase of approximately 1,590 compared to 2020.

On behalf of the Board of Directors, we would like to thank all our employees for their dedication and hard work in creating value for shareholders and customers. During the COVID-19 epidemic, in particular, staff at all levels have performed their duties diligently and tackled different challenges proactively to ensure the safe operation of the Group's public utility businesses in both Hong Kong and the Chinese mainland and to maintain the stable and sustainable development of the Group's other businesses.

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 14th June 2022. Including the interim dividend of HK12 cents per share paid on 15th September 2021, the total dividend payout for the whole year shall be HK35 cents per share.

Barring any unforeseen circumstances, the forecast dividends per share for 2022 shall not be less than the interim and final dividends for 2021.

Business Outlook for 2022

Facing the fifth wave of the COVID-19 epidemic, which is the most severe in Hong Kong in these two years, and the resulting uncertain business environment and economic outlook, the Group is committed to ensuring a safe and reliable supply of town gas and continues to adopt measures to broaden sources of revenue, cut expenditure and costs appropriately and optimise workflow. The Group also endeavours to promote smart innovation to enhance customer services and operational efficiency whilst continuously developing new town gas applications to increase gas sales volume. These initiatives collectively serve to maintain the stable development of its gas business in Hong Kong. At the same time, in line with the "Long Term Housing Strategy" of the HKSAR Government, including the development of the Northern Metropolis, the Group will proactively invest in infrastructure projects of gas supply to meet the development of the city in the future. The Group predicts steady growth in its number of gas customers in Hong Kong during 2022.

In respect of its mainland businesses, Towngas Smart Energy under the Group will continue to strengthen the development of its city-gas business while vigorously promoting the development of zero-carbon smart industrial parks with a view to doubling their number from the current base. Meanwhile, Towngas Smart Energy will increase its investment in and commitment to technology research and development to master the leading technology in the energy field, thus cementing its core competitive advantages. In addition, Towngas Smart Energy will carry out a series of business reorganisations, advancing and perfecting its development, aiming at taking a leading role in China's energy management industry over the next five to ten years.

The Chinese mainland's foreign trade also faced downward pressure in the first quarter of this year. However, in the long run, the Central Government has set a long-term vision for up to 2035, intending to enhance the country's economic and technological strengths and foster a new development paradigm featuring "dual circulations", with domestic circulation as the mainstay and domestic and international circulations reinforcing each other. In tandem with the trends and goals of coping with global climate change and green development, the Group is proactively formulating strategy in developing low-carbon and zero-carbon businesses, including city-gas business with natural gas supply as its core, city-water, urban waste treatment and utilisation, smart energy, biomass fuels and utilisation of agricultural waste. Based on the opportunities arising from the "dual carbon" goals, these businesses will have vast and long-term development prospects. The Group's development experience of over 20 years on the Chinese mainland, with businesses now spread across 28 provincial areas presenting an extensive regional network, will facilitate the sizeable growth of its respective businesses. Coupled with innovative research and development as well as favourable operating resources across different businesses, long-term growth of the Group's related businesses is foreseeable.

The continuous and rapid spread of the COVID-19 pandemic has brought a number of uncertainties to the global economic development this year. Facing the impact of the epidemic on different walks of life, the Group will prudently balance the needs of business development and operations to ensure sufficient funds for use wherever necessary.

The Central Government and all relevant parties on the Chinese mainland fully support Hong Kong in tackling the fifth wave of the COVID-19 epidemic, which is the most severe in these two years. A series of anti-epidemic measures to aid Hong Kong have been quickly introduced and implemented, and a stable supply of medical and living essentials is ensured. On behalf of the Company, we would like to express our heartfelt gratitude for their support. The Company also proactively supports related anti-epidemic works, including sponsoring and developing a gas supply project for the Lok Ma Chau Loop area makeshift hospital, and the project took only four days to finish from scratch. With the support of the Central Government and the efforts from all sides, it is anticipated that the epidemic situation in Hong Kong can be gradually stabilised.

Looking forward, the Group anticipates more prosperous development for its various businesses in the future.

Lee Ka-kit	**Lee Ka-shing**
Chairman	*Chairman*

Hong Kong, 21st March 2022

Board of Directors

Dr. Lee Ka-kit

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

Chairman & Non-executive Director

Aged 58. Dr. Lee was appointed to the Board of Directors of the Company in 1990 and subsequently appointed Chairman in May 2019. He was educated in the United Kingdom. He is a Chairman and Managing Director of Henderson Land Development Company Limited ("Henderson Land Development") and a Vice Chairman of Henderson Investment Limited. Dr. Lee was appointed as a Non-executive Director and the Chairman of the Board of Towngas Smart Energy Company Limited (formerly known as Towngas China Company Limited), a subsidiary of the Company, with effect from 25th October 2021. He was previously a Non-executive Director of The Bank of East Asia, Limited and an Independent Non-executive Director of Xiaomi Corporation. All the above companies are listed public companies. He is also a Vice Chairman of Henderson Development Limited ("Henderson Development") and a Director of Hopkins (Cayman) Limited ("Hopkins"), Rimmer (Cayman) Limited ("Rimmer") and Riddick (Cayman) Limited ("Riddick"). Henderson Land Development, Henderson Development, Hopkins, Rimmer and Riddick have discloseable interests in the Company under the provisions of the Securities and Futures Ordinance (please refer to the notes on "Substantial Shareholders and Others" on page 80 of this Annual Report for details). Dr. Lee is a Member of the Standing Committee of the 13th National Committee of the Chinese People's Political Consultative Conference and a Member as well as the Chairman of the Board of Directors of One Country Two Systems Research Institute. 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. the Hon. Lee Shau-kee, a controlling shareholder of the Company and the brother of Dr. Lee Ka-shing, a Chairman and Non-executive Director of the Company.

Dr. Lee Ka-shing

G.B.S., J.P., DSSc (Hon),

Chairman & Non-executive Director

Aged 50. Dr. Lee was appointed to the Board of Directors of the Company in 1999 and subsequently appointed Chairman in May 2019.

He was educated in Canada. He is a Chairman and Managing Director of Henderson Land Development Company Limited ("Henderson Land Development"), the Chairman and Managing Director of Henderson Investment Limited as well as the Chairman and Chief Executive Officer of Miramar Hotel and Investment Company, Limited, all of which are listed public companies. Dr. Lee is also a Vice Chairman of Henderson Development Limited ("Henderson Development") and a Director of Hopkins (Cayman) Limited ("Hopkins"), Rimmer (Cayman) Limited ("Rimmer"), Riddick (Cayman) Limited ("Riddick"), Disralei Investment Limited ("Disralei Investment"), Medley Investment Limited ("Medley Investment"), Faxson Investment Limited ("Faxson Investment"), Chelco Investment Limited ("Chelco Investment"), Macrostar Investment Limited ("Macrostar Investment") and Timpani Investments Limited ("Timpani Investments"). Henderson Land Development, Henderson Development, Hopkins, Rimmer, Riddick, Disralei Investment, Medley Investment, Faxson Investment, Chelco Investment, Macrostar Investment and Timpani Investments have discloseable interests in the Company under the provisions of the Securities and Futures Ordinance (please refer to the notes on "Substantial Shareholders and Others" on page 80 of this Annual Report for details). Dr. Lee was awarded the Gold Bauhinia Star by the Government of the Hong Kong Special Administrative Region in 2021. He is a Member of The Court of The Hong Kong Polytechnic University and a member of the Court of City University of Hong Kong. He was awarded an Honorary Fellowship by University College London in 2021 and an Honorary Degree of Doctor of Social Science by The Hang Seng University of Hong Kong in March 2022. He is also a Committee Member of the

from left to right

John Ho Hon-ming

Alfred Chan Wing-kin

Moses Cheng Mo-chi

David Li Kwok-po

Lee Ka-kit *Chairman*

Lee Ka-shing *Chairman*

Poon Chung-kwong

Colin Lam Ko-yin

Peter Wong Wai-yee

13th Beijing Committee of the Chinese People's Political Consultative Conference. Dr. Lee is the son of Dr. the Hon. Lee Shau-kee, a controlling shareholder of the Company and the brother of Dr. Lee Ka-kit, a Chairman and Non-executive Director of the Company.

Dr. Colin Lam Ko-yin

S.B.S., F.C.I.L.T., F.H.K.I.o.D., D.B. (Hon.), DBA (Hon),

Non-executive Director

Aged 70. Dr. Lam was appointed to the Board of Directors of the Company in 1983. He has more than 48 years' experience in banking and property development. He is the Deputy Chairman of The University of Hong Kong Foundation for Educational Development and Research, a Director of Fudan University Education Development Foundation, an honorary Court member of Hong Kong Baptist University, a member of the Court of The Hong Kong University of Science and Technology and a member of the Court of City University of Hong Kong. He was awarded an Honorary University Fellowship by The University of Hong Kong in 2008, an Honorary Fellowship by The Chinese University of Hong Kong in 2019, and was conferred a degree of Doctor of Business (Honoris Causa) by Macquarie University in 2015 and a degree of Doctor of Business Administration (Honoris Causa) by the Hong Kong University of Science and Technology in November 2021. He is a Fellow of The Chartered Institute of Logistics and Transport in Hong Kong and a Fellow of The Hong Kong Institute of Directors. Dr. Lam is a Vice Chairman of Henderson Land Development Company Limited ("Henderson Land Development") and Henderson Investment Limited, the Chairman of Hong Kong Ferry (Holdings) Company Limited, and an Executive Director of Miramar Hotel and Investment Company, Limited, all of which are listed public companies. Dr. Lam is a Director of Henderson Development Limited ("Henderson Development"), Hopkins (Cayman) Limited ("Hopkins"), Rimmer (Cayman) Limited ("Rimmer"), Riddick (Cayman) Limited ("Riddick"), Disralei Investment Limited ("Disralei Investment"), Medley Investment Limited ("Medley Investment") and Macrostar Investment Limited ("Macrostar Investment"). Henderson Land Development, Henderson Development, Hopkins, Rimmer, Riddick, Disralei Investment, Medley Investment and Macrostar Investment have discloseable interests in the Company under the provisions of the Securities and Futures Ordinance (please refer to the notes on "Substantial Shareholders and Others" on page 80 of this Annual Report for details).

Dr. the Hon. Sir David Li Kwok-po

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

Independent Non-executive Director

Aged 83. Sir David was appointed to the Board of Directors of the Company in 1984. Sir David is the Executive Chairman of The Bank of East Asia, Limited. He is an Independent Non-executive Director of The Hongkong and Shanghai Hotels, Limited, San Miguel Brewery Hong Kong Limited and Vitasoy International Holdings Limited. He was previously an Independent Non-executive Director of Guangdong Investment Limited. All the above companies are listed public companies. Sir David is a Member of the Council of the Treasury Markets Association. He is Founding Chairman of The Friends of Cambridge University in Hong Kong Limited, Chairman of the Advisory Board of The Salvation Army, Hong Kong and Macau Command, Chairman of the Executive Committee of St. James' Settlement and a Fellow of the Hong Kong Academy of Finance. He was a Member of the Executive Council of Hong Kong from 2005 to 2008 and the Legislative Council of Hong Kong from 1985 to 2012.

Prof. Poon Chung-kwong

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

Independent Non-executive Director

Aged 82. Prof. Poon was appointed to the Board of Directors of the Company in 2009. Prof. Poon is currently the Chairman of Virya Foundation Limited (a registered non-profit charitable organisation). Prof. Poon is an Emeritus Professor and the President Emeritus of The Hong Kong Polytechnic University. He had devoted 40 years of his life to advancing university education in Hong Kong before he retired in January 2009 from his 18-year presidency at The Hong Kong Polytechnic University. Prof. Poon is a Non-executive Director of Lee & Man Paper Manufacturing Limited and an Independent Non-executive Director of Henderson Land Development Company Limited ("Henderson Land Development") and Chevalier International Holdings Limited. All the above companies are listed public companies. Henderson Land Development has discloseable interests in the Company under the provisions of the Securities and Futures Ordinance (please refer to the notes on "Substantial Shareholders and Others" on page 80 of this Annual Report for details). Prof. Poon was appointed as a Justice of the Peace in 1989 and received the OBE award in 1991, the Gold Bauhinia Star award in 2002 and also the "Leader of the Year Awards 2008 (Education)". In addition, he was appointed as a member of the Legislative Council (1985 – 1991) and a member of the National Committee of the Chinese People's Political Consultative Conference (1998 – 2013). Prof. Poon obtained a Bachelor of Science (Honours) Degree from The University of Hong Kong, a Doctor of Philosophy Degree and a Higher Doctor of Science Degree from the University of London. He was a Postdoctoral Fellow at the California Institute of Technology, University of Southern California and University of Toronto. He also held the Honorary Degree of Doctor of Humanities from The Hong Kong Polytechnic University in 2009.

Dr. the Hon. Moses Cheng Mo-chi

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

Independent Non-executive Director

Aged 72. Dr. Cheng was appointed to the Board of Directors of the Company in January 2019. Dr. Cheng is a practising solicitor and the consultant of Messrs. P.C. Woo & Co. after serving as its senior partner from 1994 to 2015. Dr. Cheng was a member of the Legislative Council of Hong Kong. He is the founder chairman of the Hong Kong Institute of Directors of which he is now the Honorary President and Chairman Emeritus. In addition, he is a Fellow of the Hong Kong Academy of Finance. Dr. Cheng has been an independent non-executive director of Towngas Smart Energy Company Limited (formerly known as Towngas China Company Limited), a subsidiary of the Company, since May 2007. He also currently holds directorships in China Mobile Limited, China Resources Beer (Holdings) Company Limited, Guangdong Investment Limited, K. Wah International Holdings Limited, Liu Chong Hing Investment Limited and Tian An China Investments Company Limited. All the above companies are listed public companies. He was previously a Non-executive Director of Kader Holdings Company Limited.

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 71. 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 the Chairman, President, Vice Chairman or a director of a number of the project companies in the Chinese mainland of the Group. He is the Vice Chairman of Shenzhen Gas Corporation Ltd. and Foran Energy Group Co., Ltd., and an Executive Director of Towngas Smart Energy Company Limited (formerly known as Towngas China Company Limited). He was previously the Chairman of Towngas Smart Energy Company Limited and a Non-executive Director of the tenth session of the board of directors of Shanghai Dazhong Public Utilities (Group) Co., Ltd.. All of the above companies are listed public companies. He is an Honorary President of The Hong Kong Management Association and a Vice Chairman of China Gas Association. Mr. Chan is a Member of the Standing Committee on Judicial Salaries and Conditions of Service of the Government of the Hong Kong Special Administrative Region. He was previously the Deputy Chairman of the Council of The Hong Kong Institute of Education (now known as The Education University of Hong Kong) and a Member of the Board of Stewards of The Education University of Hong Kong Foundation. Mr. Chan received the Executive Award under the DHL/SCMP Hong Kong Business Awards 2005, the Director of the Year Awards – Listed Companies (SEHK – Hang Seng Index Constituents) Executive Directors from The Hong Kong Institute of Directors in 2006, the Leadership Award in Gas Industry Award 2015 from the Institution of Gas Engineers & Managers and the Energy and Utilities Alliance of the United Kingdom, "The CEO of the Year 2017" Award from China Newsweek in 2017 and was named consecutively as one of "The 100 Best-Performing CEOs in the World" by Harvard Business Review from 2015 to 2019. He was awarded an Honorary Fellowship by The Hong Kong Institute of Education (now known as The Education University of Hong Kong) in 2016. Mr. Chan, a Chartered Engineer, is also Honorary Fellow of the Energy Institute of the United Kingdom, Fellow of The Hong Kong Institution of Engineers; Fellow of The Institution of Mechanical Engineers, Fellow of The

Institution of Gas Engineers and Managers of the United Kingdom and Honorary Fellow of International Institute of Utility Specialists.

Mr. Peter Wong Wai-yee

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

Deputy Managing Director

Aged 70. 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 and was appointed as Deputy Managing Director of the Company with effect from 1st April 2021. Mr. Wong holds directorships in various subsidiaries of the Group. He is also an Executive Director and the Chief Executive Officer of Towngas Smart Energy Company Limited (formerly known as Towngas China Company Limited) and a director of Shenzhen Gas Corporation Ltd.. He was previously the Vice Chairman of Foshan Gas Group Co., Ltd. (now known as Foran Energy Group Co., Ltd.) and a director of China-Singapore Suzhou Industrial Park Development Group Co., Ltd. ("CSSD") until his retirement at CSSD on 29th June 2020. All of the above companies are listed public companies. He is a Member of the Mainland Business Advisory Committee of the Hong Kong Trade Development Council and was appointed as a council member of the Vocational Training Council on 1st July 2021. He was named consecutively as one of "The Best CEO of Chinese Listed Companies" by Forbes in 2012 and 2013. He is a chartered professional accountant of Canada, a certified public accountant of Hong Kong and a chartered company secretary in both Hong Kong and the United Kingdom. Mr. Wong is a Fellow of The Hong Kong Institute of Directors and a Fellow of The Institution of Gas Engineers and 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, and a member of the Advisory Board of the Department of Accounting of Hong Kong Shue Yan University. He is a member of the Advisory Committee and External Advisor of the Career Planning and Development Steering Committee of the College of Professional and Continuing Education, The Hong Kong Polytechnic University. He is also the Chairman of the Advisory Board of The Hong Kong Management Association ("HKMA") Global Centre for ESG Education and Research 2021/2022 and a council member of HKMA 2021/2022. Mr. Wong has over 45 years of experience in corporate finance, management and international working experience.

Mr. John Ho Hon-ming

F.C.A., F.C.P.A., F.H.K.I.o.D., B.A.(Hons.),

Executive Director, Chief Financial Officer and Company Secretary

Aged 65. Mr. Ho joined the Company in 2002. Mr. Ho was appointed to the Board of Directors of the Company in October 2020. Mr. Ho is currently the Executive Director, Chief Financial Officer and Company Secretary of the Company and also holds directorships in various subsidiaries of the Group. He is also an Executive Director and the Company Secretary of Towngas Smart Energy Company Limited (formerly known as Towngas China Company Limited) and a director of Shenzhen Gas Corporation Ltd. and Foran Energy Group Co., Ltd.. He was previously a director of Changchun Gas Co., Ltd. ("Changchun Gas") until his resignation at Changchun Gas on 24th June 2021. All of the above companies are listed public companies. Mr. Ho is the Vice Chairman of the General Committee of the Chamber of Hong Kong Listed Companies, the Vice Chairman of the Taxation Committee of the Hong Kong General Chamber of Commerce and was appointed as a member of the Accountancy Training Board of the Vocational Training Council on 1st April 2021. He is a Fellow of the Institute of Chartered Accountants in England and Wales, a Fellow of the Hong Kong Institute of Certified Public Accountants and a Fellow of the Hong Kong Institute of Directors. Mr. Ho graduated from the University of Manchester in the United Kingdom with an Bachelor of Arts degree with honours in Economics and Social Studies (Accounting and Finance). He completed the Advanced Management Program from Harvard Business School in the United States, the Senior Executive Program offered by Harvard Business School, Tsinghua University School of Economics and Management and China Europe International Business School, and the Chief Executive Program from Singapore Institute of Management. Mr. Ho has over 43 years of experience in accounting, corporate finance and investments.

Executive Committee

from left to right

Martin Kee Wai-ngai
Executive Director and Chief Operating Officer, Gas Business

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

Fan Kit-yee
Head of Corporate Human Resources

Peter Wong Wai-yee
Deputy Managing Director

Alfred Chan Wing-kin
Managing Director

John Ho Hon-ming
Executive Director, Chief Financial Officer and Company Secretary

Daniel Fung Man-kit
Head of Strategy & Innovation and Commercial – Hong Kong Utilities

John Qiu Jian-hang
Executive Director and Chief Operating Officer, Renewable Business

Mainland Utility Businesses

A New Focus on Smart Energy

We not only meet the demand for clean, reliable energy that is essential for sustained economic growth in the Chinese mainland but also help to reduce carbon emissions through our smart energy projects, which are now the focus of the Group's business development. By utilising our innovative technology, we can contribute towards the goal of creating blue skies for the country.

Mainland Utility Businesses

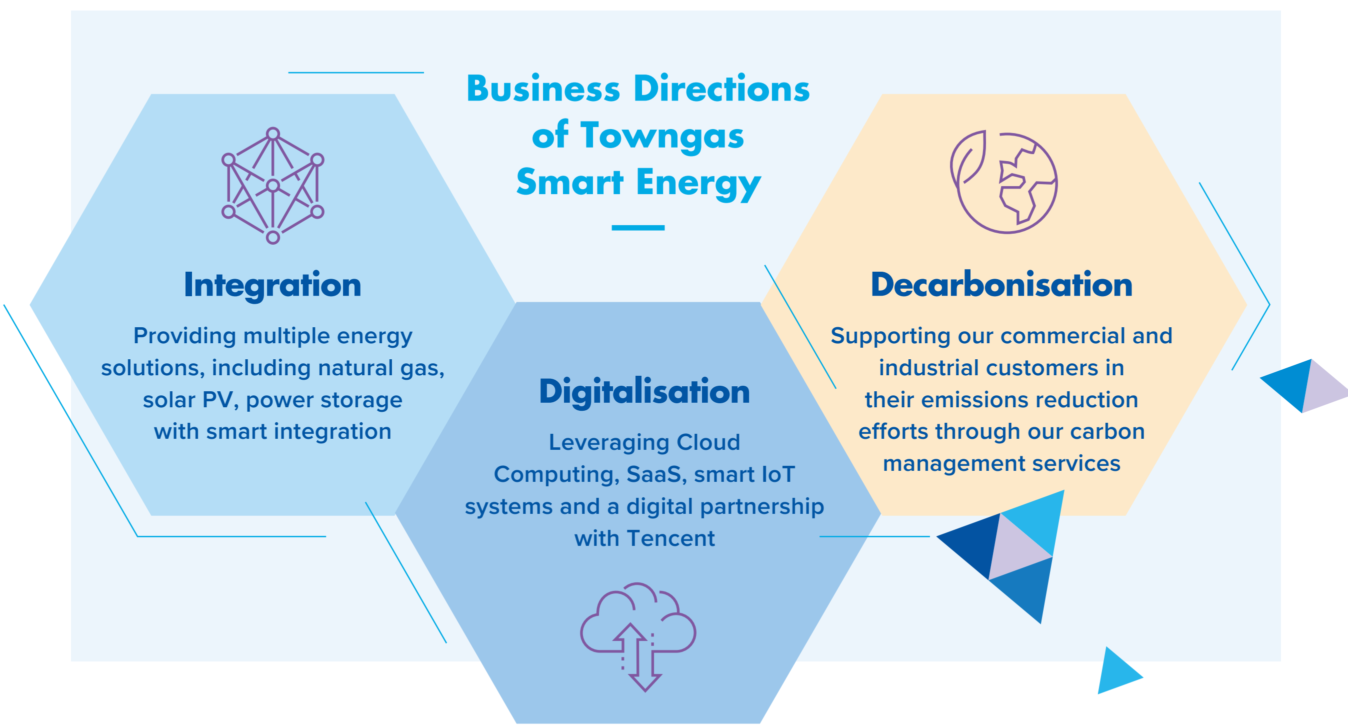
After the challenges of the previous year, our businesses in the Chinese mainland continued to make steady progress in 2021 with double digit growth in gas volume. We also established a new business direction, which will see us developing renewable energy as part of our commitment to sustainability and contribution to the country's dual goals of reaching peak carbon dioxide emissions and achieving carbon neutrality.

Our New Business Direction

Since 1994 Towngas has been providing businesses and the people of the Chinese mainland with a clean, reliable and economic source of energy as well as products for a more comfortable and convenient way of life. Today, we have become a leading gas supplier in the country, with 303 city-gas projects serving over 35 million customers in 24 provinces, autonomous regions and municipalities.

In an important move for the Group, during the year we began embarking in a new business direction – renewable energy – that will reposition us as an integrated energy operator working towards the country's "30-60" decarbonisation goal of reaching peak carbon dioxide emissions by 2030 and achieving carbon neutrality by 2060.

In November 2021 our subsidiary company, Towngas China Company



At Jiawang Industrial Park in Xuzhou, Jiangsu province, we supplied steam heat to local residents and businesses as a replacement for coal.

Limited, received HK$2.8 billion from a well-known private equity fund, Affinity Equity Partners. This investment will enable us to accelerate our transition from a traditional utility company into a leading integrated clean energy supplier, with technology and innovation as our focus.

Along with this new direction, we changed the name of the company from Towngas China Company Limited to Towngas Smart Energy Company Limited (Towngas Smart Energy). This paves the way for us to expand our products and services into renewable energy, such as solar energy systems for our commercial and industrial (C&I) customers, Distributed Energy Systems (DES) and energy storage projects. The investment will also be used to expand our digital capabilities through smart energy management systems.

Expanding into Zero-carbon Smart Industrial Parks

Currently, there are around 2,600 national and provincial industrial parks in the Chinese mainland. One of the main businesses of Towngas Smart Energy will be the development of zero-carbon smart industrial park projects.

For these projects, we are installing solar photovoltaic power generation systems on the rooftops of large-scale production plants and logistics warehouses inside existing industrial parks. The solar energy that is supplied will be configured for use in energy storage, charging and swapping power stations, multi-energy supply (cold, heat, electricity) and other energy facilities. We have also established a carbon asset company providing carbon emissions measurement, carbon trading and other carbon management services to help customers in zero-carbon smart industrial parks achieve decarbonisation and green governance.

Our overall objective with Towngas Smart Energy is to become a leading company in China's energy management industry, targeting 200 zero-carbon smart industrial parks with photovoltaics by the year 2025. Due to the huge and diverse energy demand of industrial parks, we believe our smart energy services in these parks will grow rapidly. Key markets will include the Beijing-Tianjin-Hebei region, Yangtze River Delta region and Guangdong-Hong Kong-Macao Greater Bay Area. At the end of 2021, we had planned more than 110 renewable energy projects and negotiated 32 zero-carbon smart industrial parks for development.

In July 2021 we reached a strategic collaboration agreement with Contemporary Amperex Technology Company Limited (CATL) for energy internet construction, energy storage solutions, battery technology, and chip and equity investment, among other ventures. Towngas Chairman Lee Ka-kit (third from right) and Pan Jian, Vice Chairman of CATL (second from left) attended the signing ceremony.

To build on our expertise in smart energy, we have strengthened our R&D efforts in energy management technologies and zero-carbon solutions based on renewable energy, advanced energy storage and the blockchain. Leading this effort is a strong technical and engineering team that will provide one-stop services, ranging from consultation to design, engineering and operation. Moreover, we have established strategic partnerships with leading technology companies and education institutions. In December 2021 we concluded a strategic partnership with StarFive and Winicssec to jointly develop zero-carbon smart energy solutions based on RISC-V chips.

Clean Energy, Steady Progress

The demand for clean energy increased sharply in 2021 with the announcement of China's "30-60" decarbonisation goals. Double digit growth in gas sales was achieved, due largely to the recovery of the C&I sector. During the year, the total volume of city-gas sales was over 31 billion cubic metres, an increase of 16 per cent compared with the previous year. C&I sales rose 19 per cent.

A growing source of revenue for us is the DES business. Based on an integrated energy supply, for example, these systems use natural gas to generate electricity for space heating. They also produce steam through waste heat for an overall efficiency rate of 80 per cent or more. In 2021 our DES business accounted for 368 million cubic metres of our total gas sales, an increase of 39 per cent from the year before.

Also during the year, we made a stronger effort to expand the steam and hot water supply market, including district household heating and heat or steam supply to C&I customers. In 2021 we developed steam boiler projects at a total of 5,900 t/h of steam. We also worked closely with our business partners to provide integrated energy solutions based on innovative technologies. One example is a dual-fuel smart system to control heat pumps and water heaters that supply hot water in hotels. In total, our steam and hot water business accounted for nearly 4 billion cubic metres of gas sales during the year.

Midstream and Upstream Businesses

Our investments in midstream and upstream projects include long-haul pipelines, gas storage facilities and liquefied natural gas (LNG) terminals, which help us make purchases of gas from diversified sources to guarantee supply and save costs.

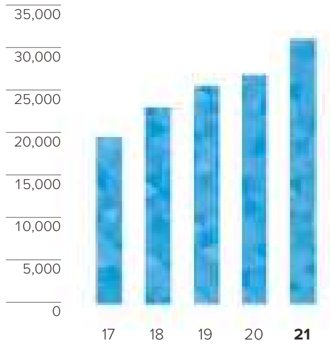
In 2021 we made satisfactory progress on our midstream projects, such as our underground salt-cavern gas storage project in Jintan, Changzhou, Jiangsu province. Strategically located in the highly industrialised eastern part of China, the Jintan facility is being constructed in phases and will ultimately comprise 25 wells with a total planned storage capacity of 1.1 billion cubic metres.

During the year, we operated five wells with a storage capacity of 250 million cubic metres and began construction on more wells in the next phase of the project.

Our storage tank project at the LNG receiving terminal in Caofeidian, Tangshan, Hebei province also made steady progress. This project includes two storage tanks with a total volume of 400,000 cubic metres, equivalent to a gas storage capacity of 240 million cubic metres. The first phase of the project, which will be commissioned by the end of 2022, will have a receiving capacity of 5 million tonnes of LNG per year. The external pipeline of the terminal will also be commissioned at the end of 2022 and will be connected to the national trunk pipelines, including the China-Russia East Line and Qin-Shen Line, as well as the natural gas pipeline in Hebei province.

Waste heat from our plant in Tongling, Anhui province is converted into energy for use by our industrial customers.

China Joint Ventures Gas Sales (million m^3)



In 2021 we stepped up negotiations for long-term imports of LNG, which will be brought into the country via the Caofeidian terminal. We expect to import 250,000 tonnes of LNG in 2023 and up to 1 million tonnes annually in 2025. We will make use of the LNG receiving terminals in Caofeidian and Shanghai for regular import trading, as well as the three developed LNG distribution channels – in Tangshan, Tianjin and Shanghai – that will be connected to markets in north, northeast and east China through the national pipeline network and interconnected pipelines.

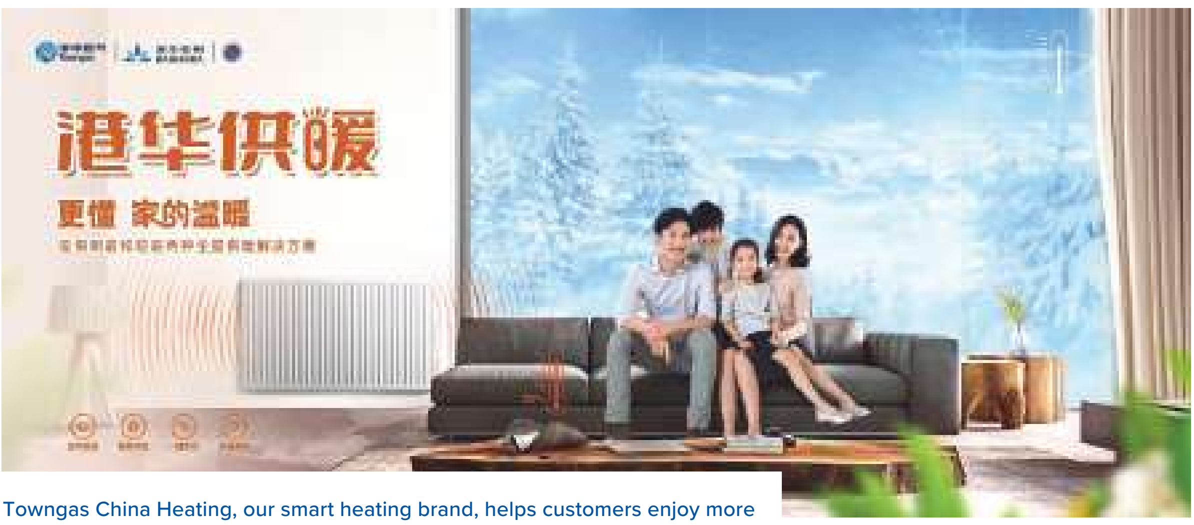
The construction of a shale gas liquefaction plant in Weiyuan, Sichuan province is expected to be completed in early 2023, which will become its gas storage and peak-shaving base in southwestern China. Cooperation agreements for this project have already been reached with many upstream and downstream enterprises. By 2025 it will have a total production capacity of 300,000 tonnes of LNG per annum.

Water and Environmental Business

Our wholly-owned subsidiary, Hong Kong & China Water Limited (Hua Yan Water), specialises in tap water supply and wastewater treatment, water quality and meter testing, and smart water supply services in the Chinese mainland. Hua Yan Water currently operates 9 water projects, serving over 2.6 million households with a daily water supply capacity of 4.67 million tonnes. As the economy recovered in 2021, Hua Yan Water recorded total water sales of 994 million tonnes, an increase of 8 per cent from the year before.

Another subsidiary, Hong Kong and China Environmental Holdings Company Limited (Hua Yan Environmental), coordinates our environmental governance and municipal waste utilisation businesses. With the objective of achieving zero waste and waste-to-energy, these businesses are involved in food waste treatment, waste incineration for power generation, and sewage treatment. We achieved satisfactory progress in our urban organic waste treatment projects at Suzhou Industrial Park, Jiangsu province and Tongling, Anhui province. The project at Suzhou Industrial Park has cumulatively processed more than 300,000 tonnes of organic waste and produced 13 million cubic metres of bio-natural gas. An additional production line in the Suzhou project was commissioned in 2021, increasing daily processing capacity to 800 tonnes.

Two municipal waste treatment projects in Changzhou, Jiangsu province will begin construction in 2022, which are expected to increase our urban waste processing capacity to 1,500 tonnes per day when completed. Another project, an incineration treatment facility for electricity generation in Jiashan, Changzhou, has been included on the list of provincial key eco-environment projects. It will commence construction in 2022 and, in the first phase, will have a daily working capacity of 1,500 tonnes.



Towngas China Heating, our smart heating brand, helps customers enjoy more comfortable living with a temperature control system developed in-house.

We organise healthy cooking demonstrations at Moment+ Community Healthy Lifestyle Experience Centres regularly.

Businesses Beyond Gas

Through our extensive network of online and offline channels, we provide a wide variety of stylish kitchen equipment and cabinets, gas appliances, home accessories, health services and food products for healthy and comfortable living.

With the completion of our capital injection into Shanghai Gas in July 2021, Towngas Smart Energy holds a 25 per cent direct ownership share in the company. As Shanghai Gas is one of the leading gas suppliers on the mainland with 6.4 million customers, the partnership will bring the total number of customers we serve up to over 41 million. Since Shanghai also has the highest GDP in the Chinese mainland, with strong demand for smart homes, healthy lifestyles and high-end products, the partnership should open up immense opportunities for our extended businesses.

Our Bauhinia line of gas appliances is renowned for its high quality and safety standards. With the development of the Internet of Things (IoT), we have introduced a smart product series that includes range hoods, cookers, water heaters and space heaters. These and other Bauhinia smart kitchen appliances and devices can all be controlled through mobile apps. In 2021 we added smart household gas alarms and household water purification products.

In 2021 we initiated a strategic plan to expand our residential space heating business. Capitalising on centralised material purchasing as well as standardised installation designs and workmanship, we aim to establish a consistent brand image for Towngas Space Heating. Starting with pilot projects in Jiangsu and Zhejiang provinces, we will continue exploring new opportunities to increase market share for this business.

For Towngas Lifestyle, we launched an upgraded Moment+ online platform during the year. It offers a comprehensive range of home services and products and gas-related services, as well as health management information and other related products and services. Through our Moment+ Community Healthy Lifestyle Experience Centres, we formed a new online and offline integrated business model with a focus on health and lifestyle. Moreover, we built a strong community network and a one-stop-shop platform in partnership with renowned medical and health brands. Services include health management, nutrition and diet consultation services, family insurance, cooking classes and in-home cleaning.

With over 12 million registered members, the platform achieved sales of RMB50.35 million in 2021, an increase of 168 per cent from the previous year.

Hong Kong Gas Business

A Tradition of Innovation

In our business, we provide innovative solutions such as our integrated desiccant dehumidification system (D-PAU) that helps medical centres and hospitals improve environmental hygiene and energy efficiency.

Hong Kong Gas Business

Overall gas sales were affected during the year due to the continuing impact of the COVID-19 pandemic on Hong Kong and average temperatures that were higher than in 2020. In this challenging environment, we looked for innovative ways to broaden our revenue sources, reduce expenditures and identify new market opportunities for our products and services.

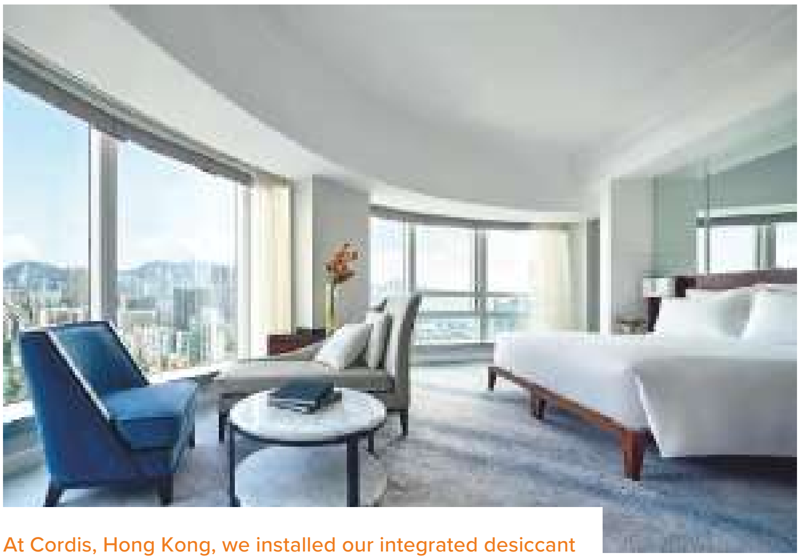
Overcoming Challenges

As a result of the global COVID-19 pandemic, the number of visitors from outside Hong Kong remained virtually negligible in 2021. Nevertheless, the hotel occupancy rate increased to 63 per cent (vs 46 per cent in 2020), due mainly to staycation packages and quarantine arrangements. Together with the gradual subsistence of the pandemic in the fourth quarter of the year and the distribution of consumption vouchers by the Government, this helped to increase gas sales to the commercial and industrial (C&I) sector, particularly among catering businesses. However, since average temperatures in Hong Kong during 2021 were higher than the previous year, residential gas sales were negatively affected.

The total volume of gas sales for the year was approximately 27,677 million MJ, a slight decrease of 1 per cent from the year before. The number of new customers rose by 21,160 accounts to over 1.96 million, a rise of 1.1 per cent from the end of 2020.

Decarbonisation Solutions

During the year, we helped our C&I customers improve their service delivery and reduce carbon emissions through the advanced technology solutions we offer.



At Cordis, Hong Kong, we installed our integrated desiccant dehumidification system (D-PAU) with a germicidal UV-C lamp in phases to improve indoor air quality.

The gas absorption chillers installed at the recently-opened Water World supply both heating water and chilled water to reduce gas consumption and increase efficiency.

One example of our advanced technology is an integrated desiccant dehumidification system (the Desiccant + Primary Air-handling Unit, or D-PAU), which provides effective humidity control and significant improvements to indoor air quality. A new version equipped with solar collectors has been in use at H Zentre in Tsim Sha Tsui. It provides a saving of 7-10 per cent in cooling energy, as compared with the conventional HVAC dehumidification method and an additional 5 per cent saving through the utilisation of solar energy. This can help customers to save energy costs and reduce carbon emissions. In 2021 the H Zentre project received an international award — the Innovative Energy Project of the Year award — from the Association of Energy Engineers in the United States.

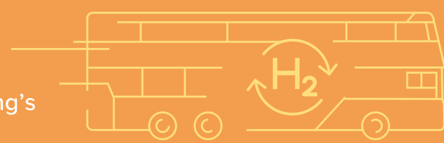
In addition to medical centres, the D-PAU can be used in airports, theme parks, hotels and particularly hospitals, in line with the Government's plans for future hospital development.

We also continued to convert steam boilers from diesel to town gas during the year. These boilers have gained widespread acceptance among users in the manufacturing, hospital, hotel and recreational sectors for their ability to produce stable, high-quality steam. They also provide significant reductions in maintenance costs and soot compared with diesel-powered boilers as well as much cleaner emissions.

Another solution with great potential is our combined heat and power (CHP) system, one of which is currently in use at Nethersole Hospital. In 2021 we linked the waste heat from the jacket water at the landfill gas power generator to the hospital's space heating system. The hospital now enjoys better temperature and humidity control as well as additional annual energy savings of 5.18 TJ and a carbon reduction of 336 tonnes. A new landfill gas 1.0 MW CHP is planned to go into service in 2026 at North District Hospital.

After Water World Ocean Park was inaugurated in 2021, we helped this major tourist attraction become Asia's first all-weather year-round water park. This was achieved by installing high-efficiency energy applications, such as our gas absorption chillers that provide chilled water for all indoor areas in summer and space heating water for indoor pools in winter. To maintain comfortable indoor humidity, we installed a hot water desiccant dehumidification system.

How we are helping Hong Kong's buses go green.



In support of the Government's Hong Kong's Climate Action Plan 2050 for carbon reduction, we began exploring how to extract a certain amount of hydrogen, which constitutes 49 per cent of our town gas, from our pipelines for use in the hydrogen fuel cell vehicles of local bus companies. As we have expertise in handling hydrogen, as well as an extensive distribution network across Hong Kong, we believe we can become an important supplier of this green energy.

Premium Appliances and Cabinets

Customers across Hong Kong look to Towngas for the quality, reliability and smart features of our branded gas appliances. Total appliance sales during the year rose by 8.8 per cent, partly due to the Government's HK$5,000 consumption voucher programme and more new property move-ins resulting from the slowdown in the pandemic.

In 2021 we introduced a Smart (IoT) Anti-scorch Built-in Hob that alerts users if the appliance is still operating after they leave their homes, and also enables them to turn it off remotely via their mobile phone. Another smart device launched during the year was a meter that not only reports meter readings automatically but can detect abnormally high gas flow levels in the home. It will then cut off the gas and send an alert to our maintenance teams.

Sales of our Mia Cucina line of premium kitchen cabinets also continued to perform well during the year, with a total of over 4,200 units sold.

Our Smart (IoT) Anti-scorch Built-in Hob can be monitored through a mobile app anytime, anywhere. With remote shut-off option, it brings customers a revolutionary new cooking experience.

Effective Marketing Initiatives

To promote our Mia Cucina kitchen products, we introduced new kitchen designs at the showroom in Causeway Bay as well as package deal promotions. For customers planning to renovate their kitchens, Mia Cucina created the first-ever *Kitchen Visualiser On Your Own* website, which allows them to create their own dream kitchen using different materials and colour combinations.

As cooking programmes are still hugely popular on local TV channels and social media, we promoted flame cooking on TV shows such as *Kitchen On Fire* and *Oppa's Cuisine*, as well as our own *Towngas Cooking* YouTube channel. Showcasing a wide variety of cooking programmes by KOLs and celebrity chefs, our YouTube channel has gained widespread popularity, accumulating over 11 million views since its inception in 2020.

Our Towngas Fun membership programme launched in 2020 has also helped to build customer loyalty. By offering welcome rewards and the opportunity to build points for redemption of our products, Towngas Fun succeeded in attracting 160,000 members by the end of 2021.

2021 Results of Towngas Service Pledge

Reliability

Uninterrupted gas supply *(over 99.99%)*

99.996%

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

100%

Restoration of gas supply within 12 hours

100%

Safety

Emergency Team average arrival time (within 25 minutes)

Average

21.39 minutes

Appointments

Availability of maintenance and installation services within 2 working days

Average

1.16 days

Speed and Convenience

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

95.13%

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

100%

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

99.92%

Service Quality

Efficiency*

8.99

Courteous and friendly attitude*

8.99

Handling Suggestions

Reply within 3 working days

100%

Resolution, or a statement of how and when the matter will be resolved, within 2 weeks

100%

*The result was based on surveys conducted by an independent research company. Our target is to exceed a score of 8.5 out of 10.

Service Excellence

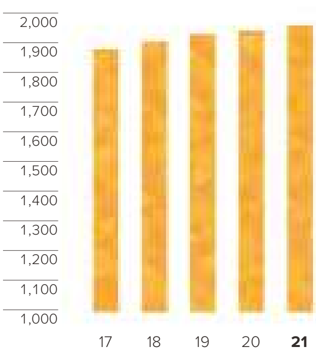
We revamped our Towngas App during the year for the convenience of our customers. It now includes upgraded eServices for easy account management and seamless bill payments. To encourage more usage of our eServices, we rolled out a series of promotional programmes during the year, including a grand lucky draw and joint promotion with PPS that offered rebates to customers who pay gas bills via our App.

Our successful Towngas Fun membership programme helped to increase customer loyalty.

In recognition of our commitment to service excellence, we received the Sing Tao Service Awards – After Sales Services for the 13th year, and East Week's Hong Kong Service Awards – Public Utilities for the 11th year. Other recognitions included Gold Award in the Mystery Caller Assessment Award – Public Service and Utilities category for our Mia Cucina 24-hour premium service hotline from the Hong Kong Customer Contact Association.

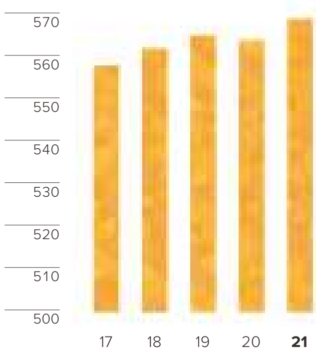
Number of Customers

Company (Thousand)



Number of Customers per km of Mains

Company



Aside from these awards, we received 6,170 letters during the year complimenting us on our high service standards.

Expanding our Gas Supply Network

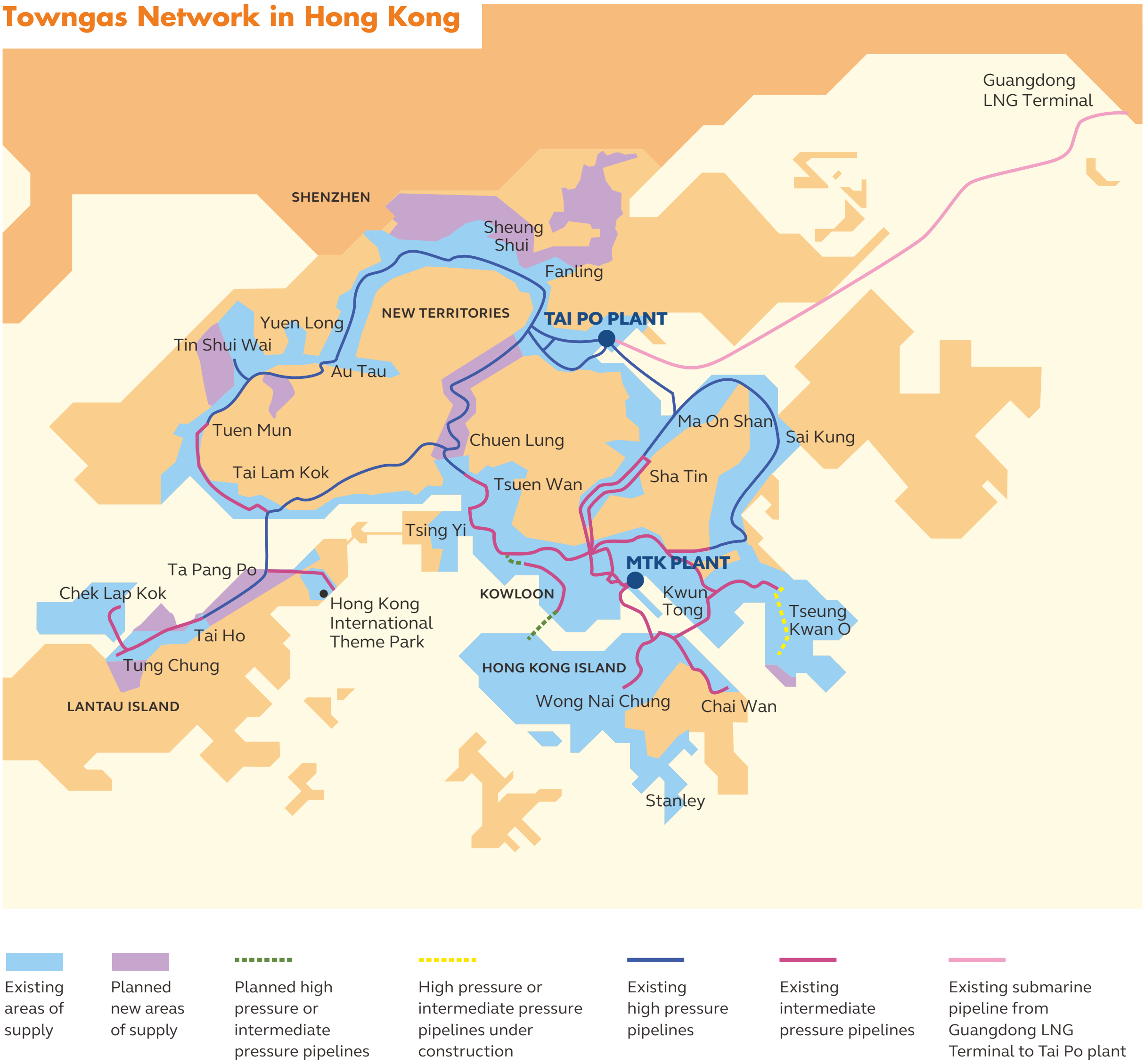
During the year, we continued to expand our gas supply network and maintain its high level of reliability. Our long-term plan to form a ring-feed transmission network in the New Territories concluded in 2021, with the commissioning of the last 9 km of transmission pipelines linking Tuen Mun and Tsuen Wan. With this "ring-up" of our transmission system, we can now provide further gas supply security to the New Territories including Lantau Island. We also completed the installation of a reinforcement pipeline to Ocean

Park to ensure a steady gas supply to the theme park, especially the newly-opened Water World.

During the year, the Government announced its Northern Metropolis plan, which covers an area of about 300 sq km. Once the proposed development projects under this plan are completed, the population is expected to increase from around 960,000 residents to 2.5 million. To meet long-term gas demand in the new development areas, we started planning to lay new pipelines and modify off-take stations in 2021.

At our gas production plant in Tai Po, we commissioned our first gas heated reformer to enhance the capacity of one of the production trains by 20 per cent. This cost-effective approach for expanding our production capacity will help us meet the growing demand for gas that we anticipate in the years ahead.

Towngas Network in Hong Kong



Diversified Businesses

Waste to Energy for a Greener World

We are a leader in the technology of converting biomass materials such as bio-grease and agricultural waste into renewable energy, initially as substitutes for fossil fuels. We are now producing advanced biofuels that will help to create a greener world.

Diversified Businesses

Through the diversified businesses we operate, we are offering innovative green solutions and contributing to the global effort to decarbonise our world. Although 2021 was a year filled with challenges and high commodity prices, our businesses continued to perform at a satisfactory level. We are now set to launch new projects, using our own patented technologies, and to carry out upgrades to our existing facilities that will contribute to our profit growth in the years ahead.

Our HVO plant in Zhangjiagang, Jiangsu province, which has expanded its daily production capacity to 1,000 tonnes, offering a higher value product mix.

New Renewable Energies

As biomass could be one of the key solutions for attaining carbon neutrality, we grouped all our businesses that make use of biomass as feedstock into a single platform, and gave it a new identity – EcoCeres, Inc (EcoCeres). All our related patented technologies and R&D capabilities will be transferred to the new platform. In the past year, we raised US$108 million in investor capital for this new platform in a Series A fundraising. More rounds of fundraising are planned to finance its rapid commercial development.

We have proprietary technologies to convert waste-based bio-grease, such as used cooking oil or palm oil mill effluent (POME), into hydro-treated vegetable oil (HVO). Our plant in Jiangsu province has been going through a period of transformation with the introduction of better catalysts, enhanced production capacity and a higher value product mix. During the year, EcoCeres produced 185,000 tonnes of HVO, all of

Cellulosic ethanol, a clean fuel in high demand in European markets, is expected to begin trial production in the second half of 2022 at our plant in Cangzhou, Hebei province.

which was exported to Europe where it is used as an advanced biofuel, with a 90 per cent reduction in greenhouse gas emissions. In 2021 we completed the upgrade of our Jiangsu plant, which expanded production capacity by 40 per cent to 1,000 tonnes per day. We also gave our plant a new capability for converting some of the HVO that is produced into sustainable aviation fuel (SAF). Given the proven technologies and processes that go into our HVO project, we are now exploring other possible sites, such as in Southeast Asia, for a plant closer to feedstock sources for utilising the abundant POME waste there.

Another proprietary technology owned by EcoCeres makes use of agricultural waste (the inedible portion of harvested crops) as feedstock. This technology involves decomposing agricultural waste into its basic components of hemicellulose, cellulose and lignin, which then become the precursors for the production of renewable products, including furfural and cellulosic ethanol, the latter of which is in high demand in European markets. Two pilot projects are under way in Hebei province. The project in Tangshan for producing furfural as the main product is currently in the trial production stage, while the one in Cangzhou is expected to enter trial production of cellulosic ethanol in the second half of 2022.

The successful production of cellulosic ethanol will probably make EcoCeres the only company in the world capable of producing the full spectrum of advanced biofuels from waste, namely HVO for diesel, SAF for jet fuel and cellulosic ethanol for gasoline, using its proprietary technologies. EcoCeres' decarbonisation journey utilising biomass would not end with advanced biofuels, however, and could lead to the further development of block bio-chemicals and bio-materials that are much needed for a carbon neutral world.

The pioneering coalbed methane project in Shanxi province for producing liquefied natural gas (LNG) recorded excellent performance in 2021. Owing to much higher LNG prices during the year, this project has proved to be an outstanding investment, both in financial and environmental terms. We also reinforced our LNG production with the commissioning of a new coke oven gas-to-LNG plant in Ningxia Hui Autonomous Region. This plant will be a key supplier of clean fuel for road transport in the western region of the country.

TGT joined Henderson Land Development Company Limited to provide a 5G mobile communication application service and augmented reality (AR) for an exciting new entertainment and shopping experience.

Our R&D efforts to produce high value-added carbon materials from coal pitch came closer to commercialisation during the year. The proprietary technology will set a platform for an advanced new materials business offering carbon fibre, thermal interface material, carbon paper and super-activated carbon for electric/new energy vehicles as well as energy storage industries.

Telecommunications

With solid infrastructure and resources, Towngas Telecommunications Company Limited (TGT), a wholly-owned subsidiary of the Group, provides services to Hong Kong, the Chinese mainland and international telecommunications service providers, operators and corporations. TGT today has world-class data centres across Hong Kong and the Chinese mainland, offering strong connectivity and advanced data services such as fog and cloud computing.

In 2021 TGT began expanding its Data Centre 2 in Hong Kong in order to satisfy the growing market demand for big data and 5G communications services. Moreover, TGT installed the "5G Sharing System" that will offer high speed, low latency and stable 5G mobile communication application service, as well as related applications for the convenience of customers in residential and commercial areas. In future, TGT will continue exploring additional growth opportunities and introducing new technologies such as smart home applications.

Information Technology

Our wholly-owned subsidiary, S-Tech Technology Holdings Limited (S-Tech), was established to provide our city-gas companies with information technology that supports customer service management. Currently, this business is engaged in cloud software development, solutions implementation and systems integration services. With these services, our city-gas businesses are able to manage their advanced customer service and gas piping network systems more efficiently. The Towngas Customer Information System (TCIS) developed by S-Tech covers 93 per cent of the Group's city-gas companies on the mainland. In 2021 the cloud and non-cloud based versions of TCIS3.0 were implemented in 154 city-gas companies, achieving 100 per cent availability.

Manufacturing

M-Tech Metering Solutions Company Limited (M-Tech) is a wholly-owned subsidiary of the Group that develops and markets smart gas meters. Many of these devices incorporate the latest developments in advanced technology, including Micro-Electro Mechanical Systems and

Narrowband Internet of Things (NB-IoT), to provide products with smart features that enhance customer safety and services, as well as wider measuring ranges. In 2021 M-Tech sold 460,000 residential NB-IoT meters, which was more than twice the number sold the year before. By integrating this product with an S-Tech platform, an SMS warning can be sent automatically to registered users' mobile phones. M-Tech also introduced an ultrasonic gas meter during the year to offer commercial and industrial customers a more accurate, sensitive and durable product.

Another wholly-owned subsidiary of the Group, G-Tech Piping System (Zhongshan) Company Limited (G-Tech), supplies high-quality polyethylene (PE) piping and related ancillary products with the support of GH-Fusion Corporation Limited, a joint venture between Towngas and Fusion Group (United Kingdom) specialising in PE pipe fittings. Its two production sites, located in Zhongshan, Guangdong province and Maanshan, Anhui province, reached a total production capacity of 20,000 tonnes of pipes in 2021. Together with its two logistics centres, G-Tech offers quality products, high distribution efficiency and excellent customer service.

Civil and Building Services Engineering

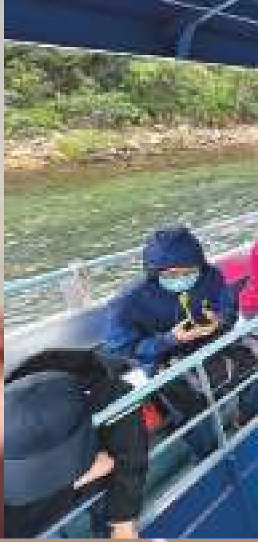
Utilising its technical expertise and trenchless technologies, U-Tech Engineering Company Limited (U-Tech) provides its clients with a comprehensive one-stop-shop service. In the second half of 2021, U-Tech won a number of large projects in Hong Kong from the Government and private sector based on the strength of its technical competence and competitive prices. The new projects include electrical installation and fire services contracts for two residential developments in the Kai Tak Development area and a three-year term contract for the Water Supplies Department. The latter project, which involves the rehabilitation of aging water mains on Hong Kong Island and the outlying islands, is one of the largest water works contracts ever secured by U-Tech. At the end of 2021, U-Tech had contracts amounting to over HK$1 billion.

Utilising its advanced polyethylene pipe jointing technology, U-Tech is building 1.9km submarine sewage outfall at Sha Tau Kok for the Drainage Services Department.

Sustainability

Thinking Sustainably, Acting Responsibly

We have rolled out a series of Environmental, Social and Governance (ESG) initiatives that create shared value for our stakeholders in the community and help to build a sustainable future.










煤氣溫馨
義工隊
煤氣傳暖意 服務助社群


Sustainability

In 2021 we not only enhanced our ESG policies and practices. We also made a concerted effort to explore innovative new products and solutions that contribute to a more sustainable world for the people we serve and future generations.

Securing a Sustainable Future

We strengthened our commitment to making Towngas an even more sustainable company during the year, both in Hong Kong and the Chinese mainland. To guide us in this transformation, we updated our Group ESG Policy along with 23 relevant policies that govern how we deal with climate change, social investment, stakeholder engagement, sustainable purchasing and corporate governance.

As we began making the transition from a provider of gas-related products and services into a supplier of low carbon smart energy, we continued to invest in green initiatives under our Towngas Green Bond Framework. These included four project categories, ranging from landfill gas utilisation to the production of low carbon, renewable energy.

2021 Sustainability Awards

Greater China Business Sustainability Index

Greater Bay Area Business Sustainability Index

Hong Kong Business Sustainability Index

RANKED FIRST
EXEMPLAR LEVEL

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

Hong Kong Sustainability Award

GRAND AWARD (LARGE ORGANISATIONS)

Most Respected Organisation Award

The Hong Kong Management Association

BOCHK Corporate Environmental Leadership Awards 2020

MANUFACTURING SECTOR – GOLD AWARD

SUSTAINABLE BUSINESS AWARD

Federation of Hong Kong Industries

Launch of the First TERA-Award Competition

In June 2021, we joined State Power Investment Corporation Limited (SPIC) to organise the first TERA-Award competition under the theme of “Exploring zero-carbon innovations for the future”. By launching this competition, we are encouraging organisations across the world to submit new smart technology ideas and research results that contribute to global carbon reduction. With a first prize of US$1 million, the TERA-Award competition attracted about 200 submissions from 23 countries and regions in Asia, Europe, the United States and South Africa. The submissions covered a wide range of innovations, such as energy supply, energy demand, green transport, energy internet and more. Together with SPIC, we will invest in these ideas for a greener world and help bring them to life.

Prioritising the UN Sustainable Development Goals

The 17 Sustainable Development Goals (SDGs) of the United Nations call on all member states to overcome different challenges and work towards a greener, more equitable world. Our support for the SDGs reflects our commitment to combat climate change and is part of our contribution to the carbon reduction efforts of Hong Kong and the Chinese mainland. We have selected four SDGs that are most relevant to Towngas and will have the greatest impact on achieving our carbon reduction targets.

We have set new group level carbon reduction targets.

In 2021 we set two new targets for cutting our operational GHG emissions by 10 per cent by 2025 (as compared with the 2020 baseline) and reducing 10 million tonnes of GHG emissions for the environment per year by 2025.

We are entering a new era of smart energy.

Towngas has developed a smart energy business with a focus on solar energy for zero-carbon industrial parks in the Chinese mainland. Services include energy management, energy storage, energy trading and carbon trading.

In June 2021 Towngas joined representatives of other large companies in Hong Kong for the launch of Asia's first four-year action research programme: Partnership for Sustainability Leadership in Business. Organised by the Centre for Civil Society and Governance of The University of Hong Kong, the programme encourages large corporations to share best practices in sustainability with medium-sized enterprises in a bid to co-create sustainable value chains in Hong Kong and the region.

We also held the Towngas "Innovation X Energy Transition" Sustainability Conference in November for industry experts and academics to share their insights on how climate change can be addressed globally through the use of innovative technologies. Over 1,000 participants attended the event onsite and online. Moreover, a series of in-house videos were produced to raise awareness of ESG management among staff and contractors.

Carbon Neutrality Commitment

Towngas has committed to become carbon neutral through energy transition and innovation, including the development of renewable energy, waste-to-energy, green hydrogen, efficiency improvement, carbon management, and other collaborative projects with universities and research institutes.

Natural gas is often regarded as the cleanest readily available fossil fuel. It is commonly used as a substitute for coal and petroleum to help reduce air pollution and carbon emissions. We believe our gas businesses can play a significant role in achieving the national Dual Carbon goals.

We can contribute to the country's carbon reduction efforts by targeting our huge commercial and industrial customer base with renewable energy products and services. Through our collaboration with StarFive and Winicssec, we are developing smart energy solutions based on RISC-V architecture. Additionally, we have set up a distribution partnership with EnerVenue, an energy storage company based in the United States, to deploy their metal-hydrogen renewable storage solutions in our smart energy platforms. As part of our long-term decarbonisation plan, we are exploring the use of hydrogen as a clean fuel for buses and heavy-duty vehicles in Hong Kong.

In another initiative to reduce GHG emissions, we signed the Chinese City-Gas Enterprise Methane Emission Control Proposal in October. Methane is a powerful greenhouse gas as it is 28 times as warming as carbon dioxide in the upper atmosphere. By signing the proposal, the gas companies including ours pledged to carry out measures and develop new technologies to reduce methane emissions. We also plan to conduct a methane leakage assessment of our gas pipelines in the year ahead with a local university to obtain a better overview of potential leakage problems in our networks.

During the year, the Group incurred over HK$230 million in total research and development related expenditures in Hong Kong and the Chinese mainland.

Building Climate Resilience

The Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD) has developed recommendations for voluntary climate-related financial disclosures. Following a thorough assessment in 2020 of the transition risks and opportunities under different climate scenarios, we began a physical risk scenario analysis to help develop plans for mitigating

Our GHG emissions are lower than you think.

With landfill gas, natural gas and naphtha as feedstock, emissions from our gas production plant are about 1 per cent of all GHG emissions in Hong Kong.

Solar power for our facilities in Hong Kong

We have installed solar photovoltaic (PV) systems at our production plant, office building and offtake stations, which are now generating over 300,000 kilowatt hours of clean energy per year. We achieved even better performance with the adoption of flexible panels, sun trackers and bifacial panels for the second phase of our PV system completed during the year.

2021 Key Environmental Performance (Hong Kong)

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

Air Quality

Total NOx output was

4 kg/TJ of town gas

Total SOx output was

0.02 kg/TJ of town gas

Total CO_2 output was

12 metric tonnes/TJ of town gas

Greenhouse Gas Emissions

Greenhouse gas emissions from major gas production equipment were

339,068 metric tonnes

in terms of CO_2 equivalent

Carbon Intensity of Gas Production

0.588 kg CO_2e/ unit of town gas;

reduced by **23%** compared with 2005

Ozone Layer Protection

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

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

The central chiller plant system in our North Point headquarters and Ma Tau Kok building are operated with HCFC-free refrigerants

Water Quality

Total waste water output was

3.6 m^3/TJ of town gas

Chemical Waste

Total chemical waste output was **1.8** kg/TJ of town gas

Noise

All installations and operations complied with the statutory requirements

No noise abatement notice has ever been received

the risks and building resilience strategies. We are also increasing our transparency and disclosing the climate risks and opportunities we face, in line with expectations by global stakeholders.

In response to the Intergovernmental Panel on Climate Change's Fifth Assessment Report, we have enhanced our climate change physical risk assessment with a scenario analysis covering the years up to 2100. Most of our facilities that are likely to be affected have already had flood gates and water pumps installed to minimise flooding risks; other measures have also been taken to prevent climate-induced hazards such as extreme temperatures and wind.

Towngas vehicles are going electric.

In 2021 we replaced our fleet in Hong Kong with 14 electric vehicles (EVs) and installed 30 chargers in our facilities. Our goal is to replace our petrol sedans with 60 or more EVs by the year 2025.

Promoting Green Awareness

We continued to support green groups in Hong Kong by raising public awareness of environmental issues and a green lifestyle.

- Sponsorship of The Green Earth's Plantation Enrichment Project to enhance the biodiversity of plantations in country parks
- Sponsorship of WWF's Earth Hour to switch off lights for one hour to combat climate change
- Sponsorship of The Green Council's Green Cooking Competition
- Partnership with Green Monday to promote green diets, the Jockey Club "Field So Good" Community Composting Programme to promote organic planting, and St James' Green Ladies for a second-hand clothes sale

Under the theme of "Green Nature", we invited employees of our mainland companies to adopt greener practices in their daily lives. Nearly 130 project companies were involved in this activity. For Towngas China Green Planting Day, nearly 90 companies joined us in planting more than 20,000 trees; for Earth Hour, more than 110 project companies took part by switching off their lights for one hour to save over 22,000 units of electricity.

To increase awareness of the need for conservation, we encouraged our staff and their families to take part in Towngas China Green Planting Day.

Serving the Community

As a public utility, we have an obligation to the communities we serve. In 2021 we continued to provide caring services, despite the challenges of the pandemic, that improve public health, social integration and personal wellbeing.

Love on Delivery Programme, Third Phase

Through the Love on Delivery programme organised with the Christian Family Service Centre, we are addressing the needs of underprivileged families in financial distress because of the pandemic. During the year, we distributed 18,960 fresh food packs to 830 families in need.

2021 Caring Initiatives

Towngas Concession Scheme

benefiting the elderly, people with disabilities, and single-parent and low-income families

Total gas concessions:

HK$26 million

Total beneficiaries:

Over 44,000 households

Festive foods for the community

44,800 bowls of soup
100,000 rice dumplings
140,000 mooncakes

Donations to support community activities

HK$3 million

Number of volunteer hours

Hong Kong:

14,122 hours

Mainland Utilities:

578,586 hours

Meet our caring Towngas volunteers

Despite their often busy work schedules, our volunteers show their care by donating their time and energy to help those in need. During the year, the Towngas Volunteer Service Team held a series of festive programmes for over 1,200 elderly people. In addition to a virtual celebration during the Chinese New Year, the team also collaborated with the Hong Kong Housing Society to organise caring events, such as an online and offline variety show for Father's and Mother's Days, an indoor sport event "Ohlympics", and a Mid-Autumn-themed event with singing performances, game booths and lantern riddles.

Our gas meters are getting smarter than ever.

We offered free installation of a new smart meter for qualified customers who are visually impaired or wheelchair users. Now these customers no longer have to rely on family, friends or welfare organisations to help with their meter readings as they can be automatically taken by the smart meter via Wi-Fi.

Chef Anchor 2.0

Since 2017 we have been running the Chef Anchor programme, Hong Kong's first procedural cooking training programme with a focus on Mild Cognitive Impairment (MCI) patients. In 2021 we included the carers of these patients who may find it a challenge taking care of MCI family members. Towngas volunteers offered help in all cooking classes for a total of 90 participants.

Workshops for Carers

Our volunteers, including our Towngas Cooking Centre instructors, showed the carers of patients with swallowing difficulties how to make soft-diet dumplings. The workshop was held with the Hong Kong Sheng Kung Hui Pilot Scheme on Multi-disciplinary Outreaching Support Teams for the Elderly (Kowloon Central Cluster). We also joined the Hong Kong Anti-Cancer Society to show carers how to cook a nutritious meal for patients with lung cancer — now the number one killer in Hong Kong.

Together with St James' Settlement, we organised a **horticultural therapy programme** to offer physical, mental and emotional support for students with special education needs in Hong Kong. Accompanied by Towngas volunteers, 24 primary students took part in a series of workshops, including an experiential workshop on organic farming, led by professional therapists.

Mainland Caring Initiatives

As in past years, our volunteers enthusiastically took part in activities that helped the disadvantaged, schools, the disabled and veterans, as well as other people in need in the community.

Towngas Gentle Breeze Movement

In addition to donating school supplies, we set up a Towngas China Charity Library at a primary school in Tongling, Anhui province — our 43rd school so far. Schools in 14 provinces and municipalities have been receiving teaching aids since the campaign's inception in 2013, with more than RMB4.5 million donated to over 9,000 students.

Rice Dumplings for the Community

Around 70 project companies and over 1,300 volunteers participated in this programme to deliver rice dumplings and festive gifts during the year.

Bauhinia Action Initiative

We met the basic needs of underprivileged families in 30 cities across the country, including donations of our Bauhinia appliances and waivers of the installation fee.

Through the Towngas Gentle Breeze Movement, we donated teaching supplies to a primary school in Tongling, Anhui province and set up a Towngas China Charity Library.

Ensuring Health and Safety

To protect our employees, customers and the general public, we continued our work of promoting health and safety across our operations and carrying out audits to identify and rectify hidden hazards in our workplaces.

In 2021 we updated our preparedness plan for infectious diseases, published the latest information on COVID-19 for our staff and contractors, and provided protective equipment to all frontline staff. Other sanitation measures introduced in 2020 remained in force. We also continued to encourage our employees to get vaccinated. By year end, 97 per cent of the staff from our mainland project companies and 92 per cent of our staff from Hong Kong had been vaccinated; the remaining number were unable to be vaccinated due to health reasons. To promote public health, we launched a lucky draw with HK$3 million in prizes to encourage Hong Kong citizens to get vaccinated.

During the year, we completed the upgrade of our occupational health and safety management system for accreditation under ISO 45001. It covers six areas, including occupational health and safety (OHS), workplace infection control, gas production safety, transmission safety, mental health and welfare, as well as business risk management.

Nine occupational safety and health awards and recognition certificates were received at the 20th Hong Kong Occupational Safety and Health Award competition, organised by the Occupational Safety & Health Council.

The 20th Hong Kong Occupational Safety and Health Awards

Safety Performance Award – Outstanding Award

| Towngas' Gas Production |

| U-Tech Engineering Company Limited |

| P-Tech Engineering Company Limited |

| Towngas Telecommunications Company Limited |

| ECO – LPG Filling Stations |

OSH Enhancement Program Award – Gold Award

OSH Innovative Award – Gold Award

| Intelligent Approach to Gas Services Riser Safety Management System |

OSH MVP Award 15 Years Plus

OSHC Strategic Partner Certificate

Our regular safety inspection programme helps us maintain the highest standard of customer safety.

Safety Innovation in Hong Kong

We ensure our gas network remains safe through the use of a sophisticated Supervisory Control and Data Acquisition system, which monitors and controls our pressure-regulating stations and network. For more accurate and efficient gas leak detection and pipe inspections, we employ long distance laser guns equipped with cameras.

New gas safety innovations in 2021 included an Internal Conditioning Robot that applies surface finishing and internal pipe coatings for steel weld seams; new video foam pigs for carrying out in-pipe inspections; and a high-pressure water jet system for trenchless excavations in mini tunnelling projects. To improve employee and contractor safety, we developed VR technology with a Light Emitting Diode (LED) wall, which provides simulations of working at height, underground pipe repairs and industrial accidents.

In 2021 we maintained our vigorous regime of regular gas leakage surveys and replacement of ageing pipes to ensure the safety of our gas network. Our inspections also included the construction projects of third party contractors. These construction activities had been seriously affected at the early stage of the COVID-19 pandemic in 2020 but have been gradually resumed since then. The number of leaks in 2021 was kept at low level, with a reduction of 6 per cent as compared with 2020.

For our Gas Riser Artificial Intelligence System developed in 2020, we received the Digital Transformation Award – Gold Award from the Hong Kong Association for Customer Service Excellence during the year, recognising our efforts to safeguard the gas supply system.

Continuous Safety Improvements on the Mainland

To ensure the highest level of gas safety on the mainland, the general managers of our project companies maintained their twice-a-month safety inspections in 2021. Our audit teams also carried out 105 scheduled or unannounced safety and risk management audits. The average scores of the audits increased compared with last year, and new KPIs were set based on the audit results.

In addition, regular safety inspections were conducted for all our chemical plants. To help our staff identify hidden dangers and unsafe workplace conditions, we launched a Hazard Identification and Mitigation Programme. In addition, we organised experience sharing workshops and webinars on safety risks in the frontline operations of our chemical plants.

As a new version of the national law on workplace safety came into effect in 2021, we held workshops to brief all project companies on the changes. To increase safety awareness among staff, we also organised competitions on safety knowledge.

No company-liable accidents were reported in 2021, and the number of cases per 100 km of gas pipe network leakages declined by 28.8 per cent compared with the previous year.

Building a Sustainable Workforce

As staff retire and leave the company, it is critical for us to train a new generation of employees so that we can ensure a sustainable talent pipeline. We address this challenge common to all companies by making Towngas an attractive place to work, providing internal and external training opportunities and encouraging optimal work-life balance.

An Equal Opportunity Employer

We value diversity and inclusion within our workforce and make every effort to attract and retain women, the disabled and minority groups. We now have 14 disabled employees in our workforce. About 25 per cent of senior staff are female, and nearly half of our university graduate intakes are also female.

Adjusting to COVID-19

Measures to keep our people safe during the pandemic included holding job interviews online instead of face-to-face; implementing an online learning platform; and creating a new home-based part-time Customer Services Officer role for parents with children. We recruited working mothers under this latter arrangement.

We also offered a wide range of activities to help staff stay physically and mentally fit. These included online yoga, Pilates and fitness classes, health webinars and assessments, talks and recommendations on health products.

We made it easier for our staff to get vaccinated.

We held talks on the safety and effectiveness of the vaccines, offered free pre-vaccination check-ups, released staff early on their vaccination days and provided two days of leave after three vaccine doses.

The Company's management and department heads visited frontline colleagues and contractors working outdoors and presented them with cold drinks.

2021 Human Resources Awards

Award for Excellence in Training & Development
GOLD AWARD
Excellence in Cultural Change Award
The Hong Kong Management Association

Excellence in Practice Award
Association for Talent Development, USA

2021 Randstad Employer Brand Award Hong Kong's Most Attractive Employer
SECOND RUNNER-UP
Randstad

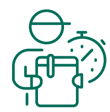
Equal Opportunity Employer Recognition Scheme – Equal Opportunity Employer (Gender Equality, Equality for Diverse Abilities and Family Status Equality)
Equal Opportunities Commission

Developing a Talent Pipeline

To ensure we have a sufficient pool of well-trained staff, we hold regular talent reviews that include a thorough discussion of our talent succession needs.

In 2021 we organised the 18-month Young Towngas Leadership Competencies Acceleration Programme (YTLC+) for young staff. During the programme, YTLC+ members will participate in a series of training programmes, mentoring, action learning projects and company visits. Additionally, more than 200 colleagues from Hong Kong and the Chinese mainland attended this year's Towngas Management Programme, which teaches supervisors and managers how to manage their teams for better performance.

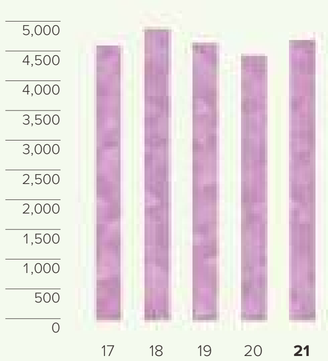
The Towngas Engineering Academy provides professional training that supports our business by reinforcing our reputation for service excellence and gas safety and attracts young people to the industry. We also work with the Vocational Training Council and local universities to help our technical employees acquire recognised qualifications, such as the DVE (Diploma of Vocational Education) in Gas Services Engineering and the Professional Diploma in Gas Engineering. These programmes can also lead to higher academic qualifications, paving the way to professional engineering degrees.



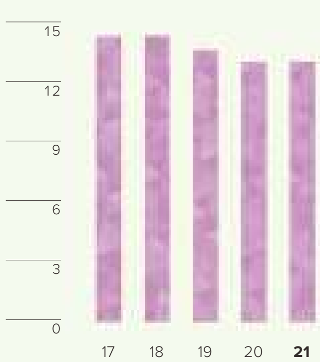
2021 Average training hours per employee

Hong Kong:
21.6 hours
Mainland Utilities:
51.5 hours

Revenue per Employee
Company (HK$ thousand)



Town Gas Sales per Employee
Company (million MJ)



Creating Long-term Value for our Stakeholders

Towngas is fully committed to delivering enhanced value for our stakeholders over the long term by addressing their interests and needs. As combating climate change and attaining carbon neutrality are a global priority, we believe that our sustainable business strategy focusing on ESG profiles will lead to more robust growth and investment outcomes. This commitment is also reflected in our corporate culture and the way we develop our human capital and promote innovation.

With our strong commitment to protecting the environment, we are confident in our ability to fulfil Towngas' vision of being "Asia's leading clean energy supplier and quality service provider, with a focus on innovation and environmental-friendliness."

2021 Key Engagement Initiatives

Employees

- Annual Quality Festival, including online seminars and company visits
- A Calligraphy Design Competition on the Chinese character "Courtesy", with winning artwork used on face masks for staff
- Workshops and seminars on the environment, health and safety

Contractors and Suppliers

- Selected key suppliers verified for their ISO14064 greenhouse gas emission inventories
- CSR self-assessments completed by over 90 per cent of key suppliers in Hong Kong
- Workshops and seminars on environment, health and safety

Customers

- Online channels such as our website, social media platforms and the Towngas App
- Customer Focus Team and online safety talks
- Bi-monthly surveys on the performance of our services and products

Local Communities

- Green partnerships and sponsorship programmes
- Charity and community programmes
- Towngas Volunteer Service Team

Investors

- Annual General Meeting
- Investor and securities analyst briefings for annual and interim results
- Conferences and meetings with investors, securities analysts and credit rating agencies
- Local and overseas roadshows

Business Projects in 2021

Mainland Utility Businesses

(City-gas projects re-invested by the Group's Companies are excluded)

Towngas (Stock Code: 3)

Piped City-Gas Projects

Guangdong Province

Panyu
Zhongshan
Dongyong
Shenzhen
Chaoan
Chaozhou Raoping

Central China

Wuhan
Xinmi

Eastern China

Yixing
Taizhou
Zhangjiagang
Wujiang
Xuzhou
Suining
Fengxian
Peixian
Danyang
Jintan
Tongling
Suzhou Industrial Park
Changzhou
Nanjing
Fengcheng
Pingxiang
Jiangxi
Zhangshu
Yonganzhou
Hangzhou

Shandong Province

Jinan East

Northern China

Jilin
Beijing Economic-technological Development Area
Hebei Jingxian

Northwestern China

Xi'an

Hainan Province

Qionghai

Midstream Projects

Guangdong LNG
Anhui NG
Hebei NG
Jilin NG
Henan NG
Jintan NG (Phase 1)
Jintan NG (Phase 2)
Huanghua Port LNG
Taizhou (District High Pressure Network)
Tangshan Caofeidian LNG Terminal

LNG Refilling Station

Nanjing (Marine)

Smart Energy

Net Zero Industrial Parks

Cangzhou
Dalian
Guangzhou
Changzhou Zhonglou
Changzhou Jintan

Photovoltaic

Suqian
Foshan
Zhaoqing
Nanyang
Xiamen
Quanzhou
Jining
Yantai
Wuxi
Shenzhen
Guangzhou
Yingkou
Jiangmen
Yangjiang
Zhengzhou

Power Storage

Dunhuang
Yangzhou
Nanjing

Power Savings Management

Changsha
Guangzhou

Charging Station & Others

Xi'an
Qinghai
Shanghai
Jilin Electric Power

Water/Waste Treatment Projects

Wujiang
Suzhou Industrial Park
Wuhu
Suzhou Industrial Park (Industrial Wastewater Treatment)
Maanshan
Jiangbei
Suzhou Industrial Park (Food Waste Processing and Utilisation)
Foshan Water Environmental Protection
Tongling
Changzhou Jiashan Waste Incineration and Power Generation
Changzhou Wujing Sewage Treatment
Jiangsu Changzhou Wujing Sewage Treatment
Wujin Hi-tech Development Zone Industrial Sewage Treatment
Wujin Food Waste Processing

Towngas Smart Energy (Stock Code: 1083)

Piped City-Gas Projects

Guangdong Province
Foshan
Shaoguan
Qingyuan
Yangdong
Fengxi

Eastern China
Shanghai
Nanjing Gaochun
Dafeng
Tongshan
Hubei Zhongxiang
Maanshan
Bowang
Zhengpugang Xin Qu Modern Industrial Zone
Wuhu Fanchang
Wuhu Jiangbei
Anqing
Chizhou
Tunxi
Huangshan
Huizhou
Tongxiang
Huzhou
Yuhang
Songyang
Changjiu
Fuzhou
Jiujiang
Wuning
Xiushui
Yifeng
Changting

Shandong Province
Jimo
Laoshan
Laoshan Bay
Zibo
Zibo Lvbo
Longkou
Jinan West
Weifang
Weihai
Taian
Chiping
Linqu
Laiyang
Zhaoyuan
Pingyin
Feicheng
Boxing Economic Development Zone
Yangxin
Wulian

Hunan Province
Miluo

Northeastern China
Benxi
Chaoyang
Tieling
Fuxin
Shenyang Coastal Economic Zone
Yingkou
Dalian Changxingdao
Dalian Economic and Technical Development Zone
Anshan
Lvshun
Kazuo
Beipiao
Wafangdian
Xinqiu
Jianping
Changchun
Gongzhuling
Siping
Qiqihar

Hebei Province
Qinhuangdao
Yanshan
Cangxian
Mengcun
Shijiazhuang

Inner Mongolia
Baotou

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

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

Upstream Project
Sichuan Liquefaction of Shale Gas

Mainland Utility Businesses (continued)

(City-gas projects re-invested by the Group's Companies are excluded)

Towngas Smart Energy (Stock Code: 1083)

CNG Refilling Stations

Qiqihar (Lianfu)
Qiqihar (Xingqixiang)

Net Zero Industrial Parks

Jiangsu Xuzhou Industrial Park
Jiangsu Danyang
Shijiazhuang Economic and Technological Development Zone
Anhui Maanshan Bowang
Anhui Chizhou
Jiangsu Taizhou Hailing
Changshu Economic Development Area
Hebei Tangshan Fengnan
Liaoning Benxi
Liaoning Tieling
Guangdong Zhongshan
Henan Zhengzhou
Shandong Jining
Xiamen Xiangan

Distributed Energy Systems

Sichuan
Shenyang Economic and Technical Development Zone
Jiawang District, Xuzhou
Jimo Chuangzhi New District, Qingdao
Yangxin Economic & Technological Development Zone, Binzhou
Changchun
Guilin
Tangshan Chengnan Economic Development Zone
Boxing Economic Development Zone, Binzhou
Xuzhou Biomedical Industrial Park
Maanshan Economic and Technological Development Zone South District
Zhengzhou Xinmi Yinji International Tourism Resort
Shenzhen Gas Building
Dangtu Economic Development Zone Northern District
Lishui Songyang Wangcun Industrial Park
Tangshan Fengnan Lingang Economic Development Zone
Anhui Electricity Company
Changzhou Photovoltaic Industrial Park
Eastern Park of Tongling Economic and Technological Development Zone
Fuxin Industrial Park
Haicheng city Xiliu Textile Industrial Park
Anqing Economic and Technological Development Zone

Photovoltaic

Shandong Liaocheng
Hubei Xianning
Beijing
Guangzhou
Shandong Qingdao
Shandong Weifang
Jiangsu Changzhou
Jiangsu Shuzhou
Shandong Binzhou
Maanshan Hua Yan Water
Jiangsu Yancheng
Hubei Wuhan
Jiangsu Suqian
Shandong Qingdao Towngas Energy
Shandong Weihai
Jiangsu Yancheng

Power Storage

Jiangsu Suzhou
Jiangsu Danyang

Other Projects

Zhuojia Public Engineering
Towngas Natural Gas Sales
U-Tech (Guang Dong) Engineering
Liaoning Clean Energy Group
Towngas Cosy Home (Chengdu) Technological Services
Shaanxi
Shenzhen Carbon Asset Management

New Energy and Other Projects

New Energy Projects

Coal Mining, Logistics & Coal-Based Chemicals

Inner Mongolia Ordos Kejian
Jiangxi Fengcheng
Inner Mongolia Ordos
Shandong Jining Jiaxianggang Logistics Port

CNG/LNG Refilling Stations

Shaanxi Xianyang
Shaanxi Huitai
Shaanxi Lueyang
Shaanxi Fengxiang
Shaanxi Shenmu
Shaanxi Baoji
Shaanxi Hancheng
Shanxi Yuanping
Shanxi Lingshi
Shanxi Xinzhou
Shandong Chiping
Shandong Dongping
Shandong Jiaxiang
Shandong Weishan
Shandong Shanxian
Shandong Linqing
Shandong Heze
Hebei Shijiazhuang
Xingtai (Gangxing)
Xingtai (Xinghua)
Henan Kaifeng
Henan Linzhou
Henan Nanyang
Henan Wuyang
Inner Mongolia Huhhot
Inner Mongolia Wulatezhong Qi
Inner Mongolia Xiwuzhumuqin Qi
Inner Mongolia Chifeng
Inner Mongolia Chaha'eryouyiqian Qi
Inner Mongolia Xilingol League
Inner Mongolia Ulanqab Huade
Inner Mongolia Ulanqab Chahar
Inner Mongolia Bayannur Uradqian Qi
Inner Mongolia Bayannur Linhe
Inner Mongolia Bayannur Hanggin
Ningxia Jinyintan
Ningxia Zhongwei
Ningxia Zhongwei Haixing Development Zone
Jiangsu Xuzhou
Anhui Maanshan
Jiangxi Pengze
Guangdong Guangzhou

Upstream Projects

Shanxi LCBM
Jilin Tianyuan
Xuzhou COG

Biomass

Zhangjiagang
Luanzhou
Cangzhou (Biofuel)

Oilfield Project

Phetchabun Province in Thailand

Telecommunications Projects

Shandong Jinan
Shandong Jinan Chibo
Shandong Laiyang
Jiangsu Xuzhou Fengxian
Jiangsu Xuzhou Peixian
Dalian DETA
Dalian Yida
Harbin
Beijing Zhongjing
Beijing Chibo
Dongguan
Shenzhen (Qianhai)
Shenzhen (Interlink Connectivity)
Yingtong TGT Network Services (Shenzhen)

Other Projects

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
S-Tech (Wuhan)
S-Tech (Zhuhai)
ECO Engineering Management (Shenzhen)
Towngas Life Style
Towngas Payment Technology (Shenzhen)
Hong Kong & China Gas International Energy Trading
Mia Cucina Kitchen Cabinets (Shenzhen)
Inner Mongolia Ordos Carbon Material
Towngas Agriculture Investment (Nanjing)
Tangshan Laundry Factory
Danyang Laundry Factory
Suzhou Industrial Park Urban Utilities Development
Jiangsu Jinzhuo Construction Engineering Co Ltd
Zhengzhou Kangerjie
C-Tech (Nanjing)

Risk Factors

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

For further details on how the Group manages its risks, please refer to the "Risk Management and Internal Control" section of our Corporate Governance Report on pages 92 to 94.

Business Environment

The outbreak of COVID-19 in 2020 has created unprecedented challenges in the global business environment, including lockdowns, global supply chain disruptions, travel bans and restrictions, and at-home work and school arrangements.

Despite the relatively effective measures to contain the virus, including the rapid deployment of vaccines and accommodative fiscal support, the performance of many of the major economies remains uneven and unsteady. While some economies have been able to rein in new cases and, consequently, experience a faster recovery, some are still ramping up their containment measures amid local resurgences of the pandemic. Moreover, the spread of the Delta and Omicron variants coupled with the potential threat of new variants has increased uncertainty about just how quickly the pandemic can be overcome.

At the same time, sustainability will be an important focus for 2021 and is already being positioned as an opportunity for accelerating the business and policy transition to net zero carbon. The push for economic recovery and growth could drive green infrastructure investment, creating a turning point in the fight against climate change.

Hong Kong's estimated GDP grew notably by 6.4 per cent in 2021, reversing the declines in the previous two years. Yet it was still 3.6 per cent below the level in 2018. And the growth pace is subject to various uncertainties, especially those relating to the local epidemic development. The latest wave of COVID-19 and tightened social distancing measures have created renewed pressure on economic activities and consumer sentiment.

In 2021, the freeze on inbound tourism continued to exert a drag on the Hong Kong economy. Visitor arrivals sank 97.4 per cent compared with 2020, dropping precipitously from 55.9 million in 2019 to 3.6 million in 2020 and down to 0.1 million in 2021. On the other hand, the average hotel occupancy rate rose from 46 per cent in 2020 to 63 per cent in 2021 (December 2021: 72 per cent) as a result of staycation packages and quarantine arrangements. The Government's Consumption Voucher Scheme also helped to support consumption-related activities. Total retail sales volume rose by 6.5 per cent in 2021 compared with the slump of 25.5 per cent in 2020. In addition, the unemployment rate continued to improve, from 4.5 per cent in Q3 2021 to 3.9 per cent in Q4 2021.

China's GDP grew by 8.1 per cent in 2021, beating the target of 'above 6 per cent'. But GDP growth in Q4 2021 slowed to 4 per cent, amid disruptions caused by the appearance of the COVID-19 Omicron variant and property market slowdown, as well as the turbulence triggered by US trade policy tightening. In 2021, total export value increased 29.9 per cent, a significant improvement from the 3.6 per cent increase in 2020. The PMI was 50.3 in December 2021, compared with 50.1 in November. The Brent crude oil price increased 69 per cent from an average of USD42/barrel in 2020 to USD71/barrel in 2021. The average RMB currency exchange rate was 6.45 in 2021 and 6.93 in 2020. In the energy sector, electricity consumption grew 10.3 per cent in 2021 compared with 3.1 per cent in 2020, while natural gas consumption grew 12.7 per cent (372.6B m^3) in 2021 compared with 5.6 per cent in 2020.

Business challenges faced by the Group included a slowdown in gas demand as a result of global warming, competition from providers of electricity in Hong Kong and direct sales by upstream gas companies, as well as suppliers of liquefied natural gas (LNG) and alternative energy sources in the Chinese mainland. Other threats to our business included the increased number of extreme weather events, rising commodity prices due to logistics interruptions and changes in government policy (political, legal, regulatory, environmental or competition related), all of which could also affect our operations.

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

Furthermore, we are constantly exploring new gas applications and new business opportunities to achieve business diversification in both the Chinese mainland and Hong Kong, while maintaining close communication with our operational partners and governments whose support is essential for our business growth. We will also conduct a pilot study on the supply of hydrogen separated from our town gas for bus companies in Hong Kong, as part of our green initiative to combat climate change and achieve carbon neutrality.

In response to the outbreak of COVID-19, a variety of counter measures has been put in place to alleviate its impact on our operations and relieve the pressure on our customers, including the granting of credit period extensions. In addition, special measures have been taken to minimise the impact of the pandemic on our workforce, as mentioned later in this section.

Reliability of Gas Supply

We secure multiple sources of feedstock for the production of town gas in our Hong Kong operations. These include natural gas transmitted from our LNG receiving terminal at

Shenzhen to our gas production plant at Tai Po, naphtha imported from places such as Southeast Asia and Australia, and treated landfill gas obtained from our landfill project sites in Hong Kong.

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

In the Chinese mainland, to facilitate more efficient gas inventory management and reduce supply bottlenecks during high demand periods we have built LNG storage facilities as well as a natural gas storage facility at our underground salt caverns in Jiangsu province. A variety of energy sources have also been obtained, including natural gas from Russia to northern and north-eastern China, LNG imported directly from receiving terminal owners and the reinforcement of pipeline network interconnections.

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

Production and Network Safety

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

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

Information Security

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

Ethics and Integrity

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

Health and Safety

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

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

With regard to COVID-19, counter measures (e.g. social distancing, video conferencing, enhanced hygiene controls, an employee quarantine policy) have been incorporated into the "new normal" way of operating in order to reduce the risk of the pandemic spreading to working premises and ensure business continuity. In addition, special Human Resources initiatives have been adopted to encourage our Hong Kong workforce to participate in the government's vaccination programme.

Financial Resources Review

Liquidity and Capital Resources

As at 31st December 2021, the Group had a net current borrowings position of HK$7,620 million (31st December 2020: HK$3,224 million) and long-term borrowings of HK$36,856 million (31st December 2020: HK$31,286 million). In addition, banking facilities available for use amounted to HK$20,900 million (31st December 2020: HK$21,200 million).

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

Financing Structure

In May 2009, the Group established a US$1 billion Medium Term Note Programme (the "Programme") which gives the Group the flexibility to issue notes at favourable terms and timing. In June 2021, the Programme was updated with the size increased to US$5 billion. In addition, our major listed subsidiary company Towngas Smart Energy Company Limited ("Towngas Smart Energy", formerly known as Towngas China Company Limited) also established its Medium Term Note Programme of US$2 billion in June 2021, which will add flexibility and capacity to its financing in future. As at 31st December 2021, the Group issued notes in the total nominal amount of HK$21,876 million (31st December 2020: HK$20,742 million) with maturity terms of 3 years, 10 years, 12 years, 15 years, 30 years and 40 years in Renminbi, Australian dollar, Japanese yen and Hong Kong dollar under the Programmes (the "MTNs"). The carrying value of the issued MTNs as at 31st December 2021 was HK$21,299 million (31st December 2020: HK$20,165 million).

As at 31st December 2021, the Group's borrowings amounted to HK$55,111 million (31st December 2020: HK$42,139 million). The increase in borrowings was mainly contributed by the drawdown of bridging loans by Towngas Smart Energy to fund its acquisition of 25% of the enlarged capital of Shanghai Gas Co., Ltd. ("Shanghai Gas") at RMB4,700 million in June 2021 and the issue of convertible bonds ("CB") of nominal amount at RMB1,836 million by Towngas Smart Energy to a strategic investor in November 2021. The carrying value of the debt component of the issued CB as at 31st December 2021 was HK$1,957 million. While the notes and CB mentioned above together with the bank and other loans of HK$9,522 million (31st December 2020: HK$8,139 million) had fixed interest rate and were unsecured, the remaining bank and other loans were unsecured and had a floating interest rate, of which HK$10,221 million (31st December 2020: HK$6,935 million) were long-term bank loans and HK$12,112 million (31st December 2020: HK$6,900 million) had maturities within one year on revolving credit or term loan facilities. As at 31st December 2021, the maturity profile of the Group's borrowings was 33 per cent within 1 year, 13 per cent within 1 to 2 years, 33 per cent within 2 to 5 years and 21 per cent over 5 years (31st December 2020: 26 per cent within 1 year, 20 per cent within 1 to 2 years, 22 per cent within 2 to 5 years and 32 per cent over 5 years).

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

In February 2019, the Group re-issued Perpetual Subordinated Guaranteed Capital Securities (the "Perpetual Capital Securities") of US$300 million and the proceeds were mainly used to refinance the 2014 first-issued perpetual capital securities redeemed in January 2019. The Perpetual Capital Securities are at a distribution rate of 4.75 per cent per annum for the first five years and thereafter at fixed distribution rate. With no fixed maturity and the distribution payment can be deferred at the discretion of the Group, and the Perpetual Capital Securities are redeemable at the Group's option on or after 12th February 2024, they are accounted for as equity in the financial statements. The 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 borrowings / (total equity + net borrowings)] for the Group as at 31st December 2021 remained healthy at 35 per cent (31st December 2020: 30 per cent). The increase in gearing was mainly contributed by the drawdown of bridging loans by Towngas Smart Energy to fund its acquisition of 25% of the enlarged capital of Shanghai Gas and the issue of CB by Towngas Smart Energy to a strategic investor as mentioned above.

Contingent Liabilities

As at 31st December 2021 and 2020, 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 the Chinese mainland. As such, its cash, cash equivalents or borrowings are mainly denominated in Hong Kong dollars, Renminbi or United States dollars, whereas borrowings for the Group's subsidiaries, associates and joint ventures in the Chinese mainland are predominantly denominated in the local currency, Renminbi, in order to provide natural hedging for the investment there.

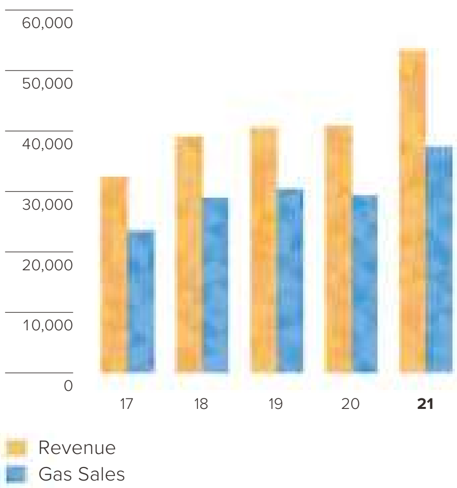
Group's Financial Investments in Securities

Under the guidance of the Group's Treasury Committee, financial investments have been made in equity and debt securities. As at 31st December 2021, the relevant investments in securities amounted to HK$360 million (31st December 2020: HK$685 million). The performance of the Group's financial investments in securities was satisfactory.

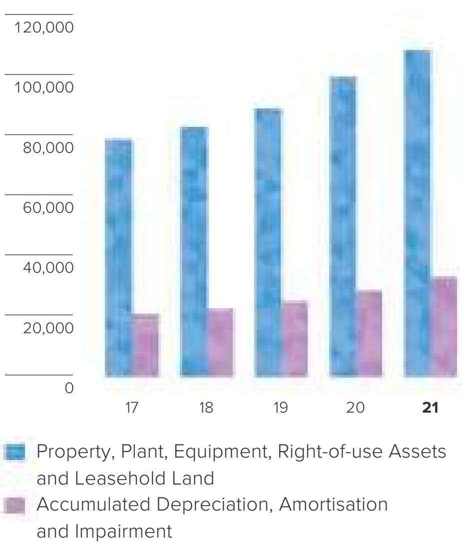
Five-Year Financial Statistics

Earnings and Dividends per Share (HK$)

Revenue and Gas Sales
(HK$ million)



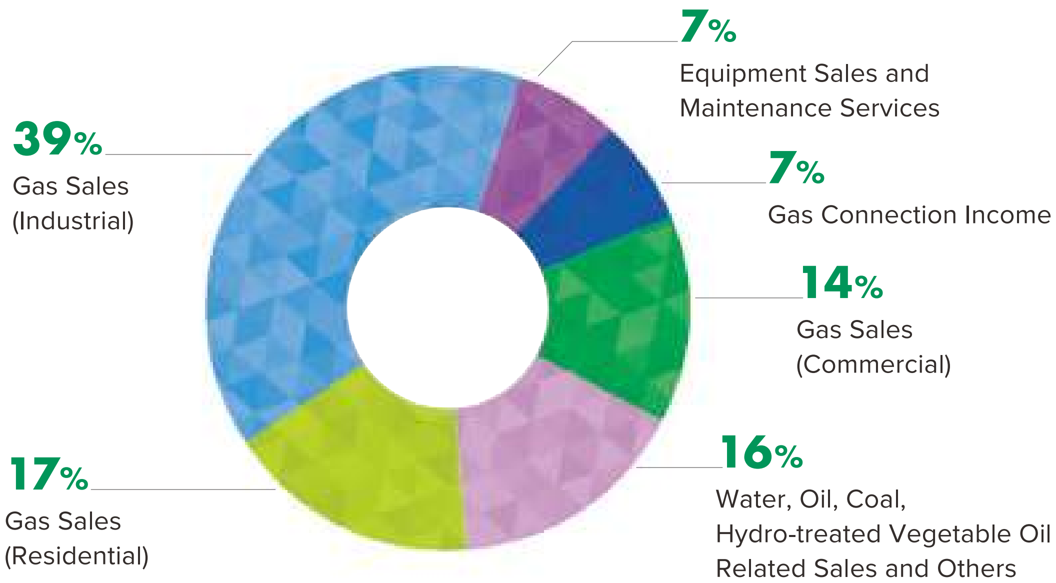
Property, Plant, Equipment, Right-of-use Assets and Leasehold Land (HK$ million)



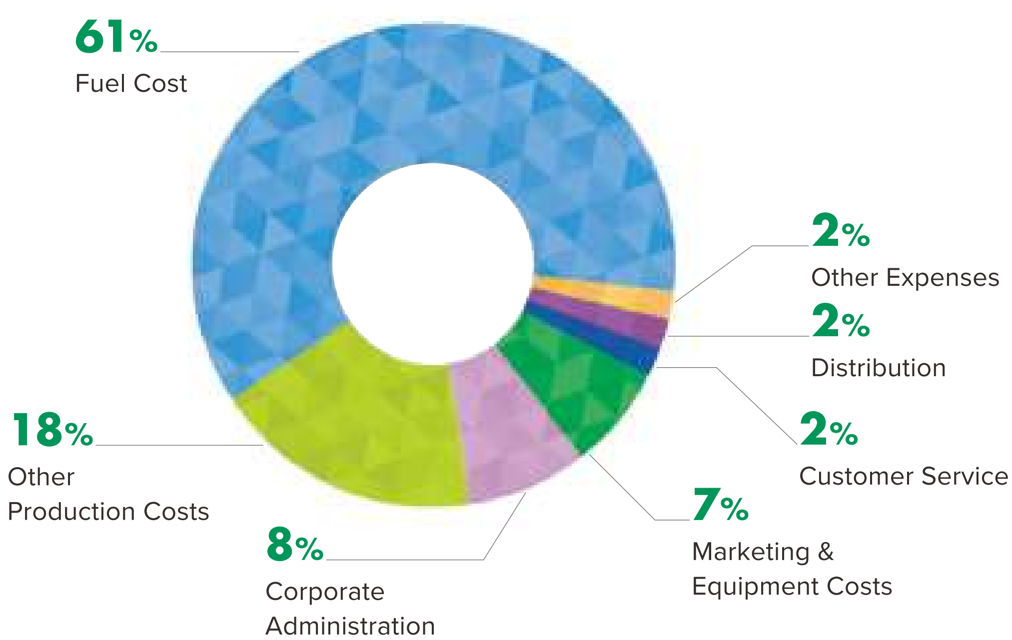
Capital Expenditures
(HK$ million)

2021 Financial Analysis

Analysis of Revenue



Analysis of Expenditures



Comparison of Ten-Year Results

	2021	2020	2019
Highlights (Company)			
Number of Customers as at 31st December	**1,964,937**	1,943,777	1,933,727
Town Gas Sales, million MJ	**27,677**	27,947	28,712
Installed Capacity, thousand m^3 per day	**12,820**	12,596	12,596
Maximum Daily Demand, thousand m^3	**6,493**	5,859	6,058
Revenue and Profit	**HK$'M**	HK$'M	HK$'M
Revenue	**53,563.7**	40,927.0	40,628.1
Profit before Taxation	**8,380.7**	8,925.6	10,403.9
Taxation	**(2,155.0)**	(1,713.2)	(2,289.6)
Profit after Taxation	**6,225.7**	7,212.4	8,114.3
Owners of perpetual securities	**(110.9)**	(110.3)	(98.6)
Non-controlling Interests	**(1,097.8)**	(1,094.8)	(1,050.0)
Profit Attributable to Shareholders	**5,017.0**	6,007.3	6,965.7
Dividends	**6,531.0**	6,220.0	5,923.8
Assets and Liabilities			
Property, Plant, Equipment, Right-of-use Assets and Leasehold Land	**75,160.2**	70,936.1	63,807.9
Investment Property	**849.0**	827.0	830.0
Intangible Assets	**5,607.2**	5,462.9	5,291.1
Associates	**36,149.9**	28,670.3	27,475.5
Joint Ventures	**12,575.2**	11,981.2	10,613.5
Non-current Financial Assets *	**7,549.9**	7,485.1	8,172.5
Other Non-current Assets	**5,988.1**	4,761.0	4,150.2
Current Assets	**24,187.9**	20,156.6	20,129.4
Current Liabilities	**(38,533.7)**	(29,806.3)	(26,167.5)
Non-current Liabilities	**(47,694.9)**	(41,320.6)	(38,905.9)
Net Assets	**81,838.8**	79,153.3	75,396.7
Capital and Reserves			
Share Capital	**5,474.7**	5,474.7	5,474.7
Share Premium	**–**	–	–
Reserves	**57,659.9**	57,196.4	54,841.9
Proposed Dividend	**4,291.8**	4,087.4	3,892.8
Shareholders' Funds	**67,426.4**	66,758.5	64,209.4
Perpetual Capital Securities	**2,384.2**	2,384.0	2,384.2
Non-controlling Interests	**12,028.2**	10,010.8	8,803.1
Total Equity	**81,838.8**	79,153.3	75,396.7
Earnings per Share, HK Dollar #	**0.27**	0.32	0.37
Dividends per Share, HK Dollar #	**0.35**	0.33	0.32
Dividend Cover	**0.77**	0.97	1.18

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

\# Adjusted for the bonus share issue in 2021

2018	2017	2016	2015	2014	2013	2012
1,908,511	1,883,407	1,859,414	1,839,261	1,819,935	1,798,731	1,776,360
29,550	29,049	28,814	28,404	28,835	28,556	28,360
12,596	12,596	12,596	12,596	12,260	12,260	12,260
7,255	6,191	6,964	6,172	6,571	6,283	6,403
HK$'M	HK$'M	HK$'M	HK$'M	HK$'M	HK$'M	HK$'M
39,073.0	32,476.5	28,557.1	29,591.3	31,614.7	28,245.9	24,922.5
12,339.5	11,096.7	9,845.7	9,906.0	9,874.6	9,410.8	9,885.6
(1,907.6)	(1,749.8)	(1,575.9)	(1,726.7)	(1,771.4)	(1,655.2)	(1,484.6)
10,431.9	9,346.9	8,269.8	8,179.3	8,103.2	7,755.6	8,401.0
(107.4)	(111.2)	(110.5)	(110.5)	(102.2)	–	–
(1,011.7)	(1,010.4)	(818.6)	(766.8)	(891.8)	(901.8)	(688.9)
9,312.8	8,225.3	7,340.7	7,302.0	7,109.2	6,853.8	7,712.1
5,385.3	4,895.7	4,450.9	4,046.6	3,679.7	3,345.9	3,041.7
60,193.3	58,056.7	51,226.2	49,417.5	51,353.6	47,002.3	41,914.1
778.0	764.0	729.0	713.0	683.0	646.0	540.0
5,682.1	5,883.6	5,572.4	5,819.5	5,858.5	5,253.3	3,845.4
26,314.1	23,393.4	20,485.0	19,591.9	17,572.5	17,015.1	16,307.1
10,950.3	10,889.2	9,226.5	9,288.2	9,033.8	8,939.0	9,103.6
4,633.7	4,289.9	4,967.1	4,567.0	2,599.7	2,937.3	3,078.6
3,529.4	3,419.3	3,366.3	2,533.3	2,668.3	2,913.5	2,710.6
20,612.2	24,365.8	21,170.9	23,632.9	24,641.5	21,688.7	21,437.8
(26,150.9)	(31,948.1)	(19,547.5)	(23,180.6)	(20,689.6)	(19,261.8)	(17,252.9)
(36,348.9)	(28,867.9)	(34,297.9)	(30,269.8)	(31,497.6)	(30,762.9)	(31,334.1)
70,193.3	70,245.9	62,898.0	62,112.9	62,223.7	56,370.5	50,350.2
5,474.7	5,474.7	5,474.7	5,474.7	5,474.7	2,389.9	2,172.6
–	–	–	–	–	2,861.0	3,078.3
53,387.1	51,746.9	45,532.6	44,707.7	44,735.7	42,418.0	37,952.1
3,538.9	3,217.2	2,924.9	2,659.0	2,417.8	2,198.7	1,998.8
62,400.7	60,438.8	53,932.2	52,841.4	52,628.2	49,867.6	45,201.8
–	2,354.1	2,353.8	2,353.8	2,353.8	–	–
7,792.6	7,453.0	6,612.0	6,917.7	7,241.7	6,502.9	5,148.4
70,193.3	70,245.9	62,898.0	62,112.9	62,223.7	56,370.5	50,350.2
0.50	0.44	0.39	0.39	0.38	0.37	0.41
0.29	0.26	0.24	0.22	0.20	0.18	0.16
1.73	1.68	1.65	1.80	1.93	2.05	2.54

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 2021 which are to be presented at the Annual General Meeting to be held at 18th Floor, Harbour East, 218 Electric Road, North Point, Hong Kong on Monday, 6th June 2022.

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 the Chinese mainland. Particulars of the principal subsidiaries of the Company are shown from pages 192 to 203 of this Annual Report. Revenue and contribution to operating profit are mainly derived from activities carried out in Hong Kong and the Chinese mainland.

Results and Appropriations

The results of the Group for the year ended 31st December 2021 are set out in the consolidated income statement and the consolidated statement of comprehensive income on pages 104 and 105 of this Annual Report respectively.

An interim dividend of HK12 cents per share was paid to shareholders on 15th September 2021 and the Directors recommend a final dividend of HK23 cents per share payable on 22nd June 2022 to shareholders whose names are on the register of members of the Company on 14th June 2022.

Business Review

A review of the business of the Group during the year is provided from pages 2 to 75 of this Annual Report, with particulars of important events affecting the Group that have occurred since the end of the year ended 31st December 2021, an analysis of the Group's performance using financial key performance indicators, and a discussion of the Group's future business development plans. A description of the possible risks and uncertainties that the Group faces are set out from pages 68 to 69. The Group's approach to financial risk management can be found in Note 3 to the consolidated financial statements. In addition, discussions of the Group's relationships with its key stakeholders, environmental policies and performance, and compliance with relevant laws and regulations that have a significant impact on the Group can be found from pages 26 to 67 and pages 84 to 96, respectively.

The Group complies with all major local laws and regulations in both Hong Kong and the Chinese mainland, including those related to business ethics, health and safety, employees, customers, and the environment, which are the basic requirements of how we operate.

Preventing gas leakages or explosions in our production and storage facilities, pipelines and networks is a top priority for the Group. In the Hong Kong gas business, the gas safety requirements are covered by the Gas Safety Ordinance (Cap. 51 of the Laws of Hong Kong), with which the Group complies fully at all times. The Group conducts regular reviews of all operating procedures to mitigate these risks and implements targeted strategies for addressing them. The Group also manages its assets according to international standards and external certifications, and maintains insurance coverage against any property damage or financial loss.

The Group collects and keeps customers' personal data necessary for the provision of the Group's services. Customers are required to supply personal data to the Group in connection with the opening or operation of gas accounts, and when the Group provides other related facilities and services. The Group takes every step necessary to protect its customers' data and has established a Personal Data Privacy Policy that sets out its standards for handling customer information. The Group complies with the Personal Data (Privacy) Ordinance (Cap. 486 of the Laws of Hong Kong).

The Group is governed by the Prevention of Bribery Ordinance (Cap. 201 of the Laws of Hong Kong) and all anti-bribery laws, which include zero tolerance towards corruption and related malpractice. The Group complies with the Prevention of Bribery Ordinance and its Code of Conduct; an Anti-fraud Policy is in place to promote integrity as a core company value. The Group further insists that all staff and business partners adhere to both the letter and the spirit of the law during the course of business. All employees are strictly forbidden from giving or accepting bribes and must never offer an advantage to, or ask for an advantage from, customers, suppliers, contractors, regulators and legislators, government authorities or other business partners.

Business Review (Continued)

The Group sets out its commitment to comply with the laws and regulations pertaining to anti-competitive practices, in line with the Group's nine core values. Guidance is provided for staff on the requirements and importance of compliance, as well as the disciplinary actions and possible liabilities they will be subject to in cases of non-compliance. Additionally, the Group closely monitors the Competition Ordinance (Cap. 619 of the Laws of Hong Kong) and reports to the management any developments that could have a significant impact on the Group.

The Company has complied with the requirements under the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (the "Listing Rules"), the Companies Ordinance (Cap. 622 of the Laws of Hong Kong) (the "Companies Ordinance") and the Securities and Futures Ordinance (Cap. 571 of the Laws of Hong Kong) (the "SFO") including but not limited to the disclosure of information and corporate governance practices.

The Group has also been aware of all relevant laws and regulations of the People's Republic of China, including but not limited to the Company Law, Environmental Protection Law, The Atmospheric Pollution Prevention and Control Law, Solid Waste Pollution Prevention and Control Law, Prevention and Control of Pollution From Environmental Noise Law, Labour Law, Production Safety Law, Fire Control Law, Construction Law, Road Traffic Safety Law, Anti-monopoly Law, Personal Information Protection Law, Cybersecurity Law, as well as the Administration Regulation on the Urban Gas and Work Safety of Construction Projects with proper compliance.

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 74 and 75 of this Annual Report.

Distributable Reserves

The distributable reserves of the Company as at 31st December 2021 amounted to HK$12,499 million (2020: HK$13,773 million) before the proposed final dividend for the year ended 31st December 2021.

Shares Issued

During the year, the Company issued 888,565,242 bonus shares without consideration on the basis of one bonus share for every twenty 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.

Bank Loans, Guaranteed Notes, Medium Term Note Programmes and Convertible Bonds

Particulars of bank loans, guaranteed notes, Medium Term Note Programmes and convertible bonds of the Company and the Group as at 31st December 2021 are set out in Note 32 to the consolidated financial statements on pages 176 to 178 and Financial Resources Review on pages 70 and 71, respectively.

Charitable Donations

During the year, the Group made charitable donations amounting to approximately HK$3 million (2020: HK$7.9 million).

Directors

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

Non-executive Directors

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

Independent Non-executive Directors

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

Executive Directors

Mr. Alfred Chan Wing-kin
Mr. Peter Wong Wai-yee
Mr. John Ho Hon-ming

At the Annual General Meeting held on 2nd June 2021, Dr. Lee Ka-shing, Prof. Poon Chung-kwong, Mr. Peter Wong Wai-yee and Mr. John Ho Hon-ming were re-elected as Directors of the Company. Dr. Lee Ka-kit, Dr. Colin Lam Ko-yin, Dr. the Hon. Sir David Li Kwok-po, Dr. the Hon. Moses Cheng Mo-chi and Mr. Alfred Chan Wing-kin 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. Colin Lam Ko-yin, Dr. the Hon. Moses Cheng Mo-chi and Mr. Alfred Chan Wing-kin are due to retire by rotation at the forthcoming Annual General Meeting and shall be eligible for re-appointment. Dr. Colin Lam Ko-yin and Dr. the Hon. Moses Cheng Mo-chi offer themselves for re-appointment. As announced by the Company on 19th March 2021, Mr. Alfred Chan Wing-kin informed the Company that he will not seek re-election as a director of the Company at the forthcoming Annual General Meeting and will retire from office with effect from the conclusion of the forthcoming Annual General Meeting. Details of the 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 kept at the Company's registered office and available for inspection by shareholders during office hours.

Biographical Details of Directors

The biographical details of Directors and senior management who are also Executive Directors are set out from pages 20 to 24 of this Annual Report.

Disclosure of Interests

A. Directors

As at 31st December 2021, 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 SFO) as recorded in the register required to be kept under section 352 of the SFO or as otherwise notified to the Company and The Stock Exchange of Hong Kong Limited (the "Exchange") pursuant to the Model Code for Securities Transactions by Directors of Listed Issuers were as follows:

Shares and Underlying Shares (Long Positions)

		Interest in Shares				
Name of Company	Name of Director	Personal Interests	Corporate Interests	Other Interests	Aggregate Interests	Approximate %*
The Hong Kong and China Gas Company Limited	Dr. Lee Ka-kit			7,748,692,715 (Note 2)	7,748,692,715	41.53
	Dr. Lee Ka-shing			7,748,692,715 (Note 2)	7,748,692,715	41.53
	Dr. the Hon. Sir David Li Kwok-po	57,297,885			57,297,885	0.31
	Mr. Alfred Chan Wing-kin	355,772 (Note 4)			355,772	0.00
	Prof. Poon Chung-kwong	243,085 (Note 5)			243,085	0.00
	Mr. John Ho Hon-ming	55,710			55,710	0.00
Lane Success Development Limited	Dr. Lee Ka-kit			9,500 (Note 6)	9,500	95
	Dr. Lee Ka-shing			9,500 (Note 6)	9,500	95
Yieldway International Limited	Dr. Lee Ka-kit			2 (Note 7)	2	100
	Dr. Lee Ka-shing			2 (Note 7)	2	100
Towngas Smart Energy Company Limited ("Towngas Smart Energy", formerly known as Towngas China Company Limited)	Dr. Lee Ka-kit			2,084,895,656 (Note 8)	2,084,895,656	65.98
	Dr. Lee Ka-shing			2,084,895,656 (Note 8)	2,084,895,656	65.98
	Mr. Alfred Chan Wing-kin	4,161,034			4,161,034	0.13
	Mr. Peter Wong Wai-yee	3,201,000			3,201,000	0.10
	Mr. John Ho Hon-ming	1,133,862			1,133,862	0.04
EcoCeres, Inc.	Mr. Alfred Chan Wing-kin		66,409 (Note 9)		66,409	0.58
Everwealth Investment A, L.P. (the "Limited Partnership")	Mr. Alfred Chan Wing-kin	USD2,237,452 (Note 10)			USD2,237,452	100

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

Save as mentioned above, as at 31st December 2021, there were no other interests or short positions of the Directors of the Company in any shares, underlying shares or debentures of the Company or any of its associated corporations (within the meaning of Part XV of the SFO) recorded in the register maintained by the Company pursuant to section 352 of the SFO or as otherwise notified to the Company and the Exchange pursuant to the Model Code for Securities Transactions by Directors of Listed Issuers.

Disclosure of Interests (Continued)

B. Substantial Shareholders and Others (Long Positions)

As at 31st December 2021, the interests and short positions of every person, other than the Directors of the Company, in the shares and underlying shares of the Company as recorded in the register required to be kept under section 336 of the SFO were as follows:

	Name of Individual / Company	No. of Shares in which Interested	Approximate %*
Substantial Shareholders (a person who is entitled to exercise, or control the exercise of, 10% or more of the voting power at any general meeting)	Dr. the Hon. Lee Shau-kee (Note 3)	7,748,692,715	41.53
	Disralei Investment Limited (Note 1)	4,313,717,809	23.12
	Timpani Investments Limited (Note 1)	5,989,193,083	32.10
	Faxson Investment Limited (Note 1)	7,748,692,715	41.53
	Henderson Land Development Company Limited (Note 1)	7,748,692,715	41.53
	Henderson Development Limited (Note 1)	7,748,692,715	41.53
	Hopkins (Cayman) Limited (Note 2)	7,748,692,715	41.53
	Riddick (Cayman) Limited (Note 2)	7,748,692,715	41.53
	Rimmer (Cayman) Limited (Note 2)	7,748,692,715	41.53
Persons other than Substantial Shareholders	Macrostar Investment Limited (Note 1)	1,759,499,632	9.43
	Chelco Investment Limited (Note 1)	1,759,499,632	9.43
	Medley Investment Limited (Note 1)	1,675,475,274	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 2021, the register maintained by the Company pursuant to section 336 of the SFO recorded no other interests or short positions in shares and underlying shares of the Company.

Notes:

1. These 7,748,692,715 shares were beneficially owned by Macrostar Investment Limited ("Macrostar"), Medley Investment Limited ("Medley") and Disralei Investment Limited ("Disralei"). Macrostar was a wholly-owned subsidiary of Chelco Investment Limited, which was in turn, a wholly-owned subsidiary of Faxson Investment Limited ("FIL"). Medley and Disralei were wholly-owned subsidiaries of Timpani Investments Limited, which was in turn, a wholly-owned subsidiary of FIL. FIL was a wholly-owned subsidiary of Henderson Land Development Company Limited ("HLD"). Henderson Development Limited ("HD") was entitled to exercise or control the exercise of more than one-third of the voting power at general meetings of HLD.
2. These 7,748,692,715 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 Dr. Lee Ka-shing, as discretionary beneficiaries of the discretionary trusts, were taken to have duties of disclosure in relation to these shares by virtue of Part XV of the SFO.
3. These 7,748,692,715 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 355,772 shares were jointly held by Mr. Alfred Chan Wing-kin and his spouse.
5. These 243,085 shares were jointly held by Prof. Poon Chung-kwong and his spouse.
6. These 9,500 shares in Lane Success Development Limited were beneficially owned by a wholly-owned subsidiary of the Company (as to 4,500 shares) and a wholly-owned subsidiary of HLD (as to 5,000 shares). Dr. Lee Ka-kit and Dr. Lee Ka-shing were taken to be interested in HLD and the Company as set out in Notes 1 and 2 by virtue of Part XV of the SFO.
7. These 2 shares in Yieldway International Limited were beneficially owned by a wholly-owned subsidiary of the Company (as to 1 share) and a wholly-owned subsidiary of HLD (as to 1 share). Dr. Lee Ka-kit and Dr. Lee Ka-shing were taken to be interested in HLD and the Company as set out in Notes 1 and 2 by virtue of Part XV of the SFO.
8. These 2,084,895,656 shares in Towngas Smart Energy representing approximately 65.98% of the total number of issued shares in Towngas Smart Energy were beneficially owned by Hong Kong & China Gas (China) Limited (as to 1,905,302,051 shares), Planwise Properties Limited (as to 176,588,786 shares) and Superfun Enterprises Limited (as to 3,004,819 shares), wholly-owned subsidiaries of the Company. Dr. Lee Ka-kit and Dr. Lee Ka-shing were taken to be interested in the Company as set out in Notes 1 and 2 by virtue of Part XV of the SFO.
9. These 66,409 shares in EcoCeres, Inc. were beneficially owned by the Limited Partnership (an exempted limited partnership). Since Mr. Alfred Chan Wing-kin's capital commitment as limited partner to the Limited Partnership was more than one-third of the total capital contribution requirements of the Limited Partnership, Mr. Alfred Chan Wing-kin was taken to be interested in these shares by virtue of Part XV of the SFO.
10. These interests in the Limited Partnership representing Mr. Alfred Chan Wing-kin's capital commitment of USD2,237,452 as limited partner to the Limited Partnership, being an associated corporation of the Company 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

During the year and as at 31st December 2021, 66,409 shares in EcoCeres, Inc., a non wholly-owned subsidiary of the Company, were beneficially owned by Everwealth Investment A, L.P. (the "Limited Partnership"). Mr. Alfred Chan Wing-kin, as a limited partner, had committed to make capital contribution of USD2,237,452 to the Limited Partnership representing more than one-third of the total capital contribution requirements of the Limited Partnership.

Save as mentioned above, 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 Listing Rules, the interests of Directors of the Company in businesses which might compete with the Group during the year ended 31st December 2021 and as at 31st December 2021 were as follows:

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

Service Contracts

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

Connected Transactions

During the year, the Company had the following connected transactions, each of which, as disclosed by way of announcement, was subject to the reporting and announcement requirements but exempt from independent shareholders' approval requirements under Chapter 14A of the Listing Rules since each of the applicable percentage ratios was less than 5%:

1. As disclosed in an announcement of the Company dated 11th June 2021, Alpha Idea International Limited ("Alpha Idea"), a wholly-owned subsidiary of the Company, had by signing and returning to Best Galaxy Limited ("Best Galaxy"), a wholly-owned subsidiary of Henderson Land Development Company Limited ("HLD"), on 11th June 2021: (a) a first letter of nomination in respect of the engagement for the carrying out of the town gas installation works at the sum of HK$34,744,000; and (b) a second letter of nomination in respect of a successful tender for a sub-contract for the carrying out of the supply and installation works of kitchen appliances at the sum of HK$14,906,430, both at the residential development situated at Fanling North New Development Site A, Ma Sik Road, Fanling Sheung Shui Town Lot 262, Fanling, New Territories, Hong Kong for Best Galaxy. As Best Galaxy is a wholly-owned subsidiary of HLD, which in turn is a controlling shareholder of the Company, Best Galaxy is a connected person of the Company under the Listing Rules and the aforesaid transactions therefore constituted connected transactions for the Company under Chapter 14A of the Listing Rules.

Connected Transactions (Continued)

2. As disclosed in an announcement of the Company dated 8th October 2021, (a) U-Tech Engineering Company Limited ("U-Tech"), a wholly-owned subsidiary of the Company, had by signing and returning to Heng Lai Construction Company Limited ("Heng Lai"), a wholly-owned subsidiary of HLD, on 24th November 2020 a letter of acceptance (the "Previous Letter of Acceptance") in respect of a successful tender for a sub-contract for the carrying out of the supply and installation of electrical equipment and the testing and commissioning of electrical systems (the "Electrical Installation Works") for Heng Lai at the sum of HK$39,892,140; and (b) Alpha Idea had by signing and returning to Asia Turbo Development Limited ("Asia Turbo"), a wholly-owned subsidiary of HLD, on 8th October 2021 a letter of nomination (the "Letter of Nomination") in respect of the engagement by Asia Turbo for the carrying out of the town gas installation works (the "Town Gas Installation Works") at the sum of HK$14,019,500, both at the residential development situated at 25-29 Kok Cheung Street, Tai Kok Tsui, Kowloon, Hong Kong (the "Tai Kok Tsui Property").

   As Heng Lai is a wholly-owned subsidiary of HLD, which in turn is a controlling shareholder of the Company, Heng Lai is a connected person of the Company under the Listing Rules and the transaction in respect of the Electrical Installation Works therefore constituted a connected transaction for the Company under Chapter 14A of the Listing Rules. Nonetheless, as all of the relevant percentage ratios calculated pursuant to Rule 14.07 of the Listing Rules in respect of the Electrical Installation Works were less than 0.1%, the transaction in respect of the Electrical Installation Works was fully exempt from all disclosure requirements under Chapter 14A of the Listing Rules on a standalone basis. As Asia Turbo is a wholly-owned subsidiary of HLD, which in turn is a controlling shareholder of the Company, Asia Turbo is a connected person of the Company under the Listing Rules and the transaction in respect of the Town Gas Installation Works therefore constituted a connected transaction for the Company under Chapter 14A of the Listing Rules. Since the Previous Letter of Acceptance and the Letter of Nomination were entered into between the Group and subsidiaries of HLD within 12 months in relation to the installation works to be performed at the Tai Kok Tsui Property, and when calculated on an aggregated basis, one of the relevant percentage ratios calculated pursuant to Rule 14.07 of the Listing Rules in respect of the Electrical Installation Works and the Town Gas Installation Works was greater than 0.1% but less than 5%, the aforesaid transactions were subject to the reporting and announcement requirements.

3. As disclosed in the announcement of the Company dated 3rd December 2021, (a) U-Tech had by countersigning and returning to Infinite Sun Limited ("Infinite Sun"), a company which is indirectly owned as to 30% by HLD, on 3rd December 2021 a first letter of intent in respect of the confirmation of the nomination of U-Tech as the sub-contractor to carry out the works relating to the upgrade of certain lighting, the supply and installation of electrical equipment (including the installation of booking facility system for clubhouse) and the testing and commissioning of electrical systems at the fixed contact sum of HK$152,000,000; and (b) Alpha Idea had by countersigning and returning to Infinite Sun on 3rd December 2021 a second letter of intent in respect of the confirmation of the nomination of Alpha Idea as the sub-contractor to carry out the works relating to supply and installation of town gas supply pipework and gas appliances and facilities at the fixed contract sum of HK$26,173,480, both at the residential development situated at New Kowloon Inland Lot No. 6576, Area 4B, Site 1, Kai Tak, Kowloon, Hong Kong for Infinite Sun. As Infinite Sun is an associate (as defined in the Listing Rules) of HLD (a controlling shareholder of the Company), Infinite Sun is a connected person of the Company under the Listing Rules and the aforesaid transactions therefore constituted connected transactions for the Company under Chapter 14A of the Listing Rules.

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

Directors' Material Interests in Transactions, Arrangements or Contracts

Except for the "Connected Transactions" as disclosed in this report, no other transactions, arrangements or contracts of significance in relation to the Group's business to which the Company or any of its subsidiaries was a party, and in which a Director of the Company and the Director's connected entity had a material interest, whether directly or indirectly, subsisted at the end of the year or at any time during the year.

Management Contracts

No contracts (as defined in section 543 of the Companies Ordinance) 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.

Controlling Shareholders' Interests in Significant Contracts

Save as disclosed in this report, no contract of significance has been entered into between the Company or any of its subsidiaries and the controlling shareholder or its subsidiaries during the year.

Purchase, Sale or Redemption of 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 ended 31st December 2021, except that the trustee of the share award scheme adopted by Towngas Smart Energy (a 65.98%-owned subsidiary of the Company) on 17th August 2021 (the "Share Award Scheme"), pursuant to the terms of the rules and trust deed of the Share Award Scheme, purchased on the Exchange a total of 3,772,000 shares of Towngas Smart Energy at a total consideration of HK$19,928,000.

Permitted Indemnity

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

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

Major Customers and Suppliers

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

Corporate Governance

The Company's corporate governance principles and practices are set out in the Corporate Governance Report from pages 84 to 96 of this Annual Report.

Public Float

As at the date of this report, the Company has maintained the prescribed public float under the Listing Rules, based on the information that is publicly available to the Company and within the knowledge of the Directors.

Auditor

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

On behalf of the Board

Lee Ka-kit	**Lee Ka-shing**
Chairman	*Chairman*

Hong Kong, 21st March 2022

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 2021, the Company complied with all the code provisions as set out in the Corporate Governance Code contained in Appendix 14 to the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (the "Listing Rules").

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

Board of Directors

Responsibilities of Directors

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

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

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

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

All Directors participated in appropriate continuous professional development and provided the Company with their records of training they received for the year ended 31st December 2021.

Board of Directors (Continued)

Responsibilities of Directors (Continued)

During the year ended 31st December 2021, all the current Directors participated in the training which included reading regulatory updates or information relevant to the Group or its businesses and attending or giving talks at seminars and/or conferences.

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

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

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

Corporate Governance Functions

The Board has undertaken the following corporate governance functions:

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

During the year ended 31st December 2021, the Board reviewed the Company's policies and practices on corporate governance and the disclosure in the Corporate Governance Report.

Board of Directors (Continued)

Board Diversity Policy

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

Nomination Policy

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

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

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

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

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

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

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

Board of Directors (Continued)

Dividend Policy

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

Board Composition

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

During the year ended 31st December 2021 and up to the date of publication of this Annual Report, the Directors of the Company are set out below:

Non-executive Directors

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

Independent Non-executive Directors

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

Executive Directors

Mr. Alfred Chan Wing-kin
Mr. Peter Wong Wai-yee
Mr. John Ho Hon-ming

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 20 to 24 of this Annual Report. Save as disclosed therein, there is no financial, business, family or other material/relevant relationship among the Directors. A List of Directors and their Role and Function is available on both the websites of The Stock Exchange of Hong Kong Limited (the "Exchange") and the Company.

According to the Articles of Association, one-third of all the directors are subject to retirement by rotation at every AGM. Subject to the provisions contained in the Articles of Association, the term of office of all Non-executive Directors (including Independent Non-executive Directors) shall expire on 31st December 2023.

Board of Directors (Continued)

Joint Chairmen of the Board and Managing Director

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

Board 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 2021, the Board met four times. The attendance record of each Director at the Board meetings during the year ended 31st December 2021 is set out below:

Directors	No. of Meetings Attended / Held
Non-executive Directors	
Dr. Lee Ka-kit (Chairman)	4/4
Dr. Lee Ka-shing (Chairman)	4/4
Dr. Colin Lam Ko-yin	4/4
Independent Non-executive Directors	
Dr. the Hon. Sir David Li Kwok-po	4/4
Prof. Poon Chung-kwong	4/4
Dr. the Hon. Moses Cheng Mo-chi	3/4
Executive Directors	
Mr. Alfred Chan Wing-kin	4/4
Mr. Peter Wong Wai-yee	4/4
Mr. John Ho Hon-ming	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.

Board of Directors (Continued)

Directors' Securities Transactions

The Company has adopted the Model Code for Securities Transactions by Directors of Listed Issuers as set out in Appendix 10 to the Listing Rules as the code for dealing in securities of the Company by the Directors (the "Model Code"). Having made specific enquiry by the Company, all Directors confirmed that they had fully complied with the required standard set out in the Model Code throughout the year ended 31st December 2021.

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 responsibility for preparing the financial statements for the year ended 31st December 2021, which give a true and fair view of the state of affairs of the Company and of the Group at that date and of the Group's results and cash flows for the year then ended and are properly prepared on a going concern basis in accordance with statutory requirements and applicable accounting standards. The Directors shall ensure the publication of the Group's financial statements in a timely manner.

The statement of the Auditor of the Company about their reporting responsibilities on the financial statements of the Group is set out in the Independent Auditor's Report from pages 97 to 103 of this Annual Report.

Board Committees

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

Board Audit and Risk Committee

The Board Audit and Risk Committee (formerly known as Audit Committee) was formed in May 1996. The members of the Board Audit and Risk Committee are Dr. the Hon. Sir David Li Kwok-po (Chairman of the Board Audit and Risk Committee), Prof. Poon Chung-kwong and Dr. the Hon. Moses Cheng Mo-chi. All members are Independent Non-executive Directors. The Chairman of the Board Audit and Risk Committee has the appropriate professional qualification as required by the Listing Rules.

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

The Board Audit and Risk Committee held two meetings during the year ended 31st December 2021 and the following sets out a summary of the work of the Board Audit and Risk Committee during the year under review:

- review of the financial reports for 2020 annual results and 2021 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;
- review of the external auditor's findings;
- review of the Company's continuing connected transactions for the year ended 31st December 2020 pursuant to the Listing Rules; and
- review of the effectiveness of the Company's financial control and risk management and internal control systems, including the review of the adequacy of resources, staff qualifications and experience, training programmes and budget of the Company's accounting and financial reporting function.

Board Committees (Continued)

Board Audit and Risk Committee (Continued)

The attendance record of each member at the Board Audit and Risk Committee meetings during the year ended 31st December 2021 is set out below:

Board Audit and Risk Committee Members	No. of Meetings Attended / Held
Dr. the Hon. Sir David Li Kwok-po (Chairman)	2/2
Prof. Poon Chung-kwong	2/2
Dr. the Hon. Moses Cheng Mo-chi	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. Lee Ka-kit and Dr. Lee Ka-shing (both are Non-executive Directors), Prof. Poon Chung-kwong and Dr. the Hon. Moses Cheng Mo-chi (both are Independent Non-executive Directors) 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 websites of the Exchange and the Company.

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 2021, every Director received a Director's fee at the rate of HK$250,000 per annum while the Joint Chairmen of the Board each received an additional fee at the rate of HK$250,000 per annum and each member of the Board Audit and Risk Committee, the Remuneration Committee and the Nomination Committee received additional fees at the rate of HK$250,000, HK$100,000 and HK$100,000 per annum respectively. The Remuneration Committee considered the fees reasonable in view of the Directors' responsibilities. During the year ended 31st December 2021, 66,409 shares in EcoCeres, Inc., a non wholly-owned subsidiary of the Company, were beneficially owned by Everwealth Investment A, L.P. (the "Limited Partnership"). Mr. Alfred Chan Wing-kin, as a limited partner had committed to make capital contribution of USD2,237,452 to the Limited Partnership representing more than one-third of the total capital contribution requirements of the Limited Partnership (the "Arrangement"). Details of the Arrangement are set out in page 81 of the Report of Directors.

The Remuneration Committee held one meeting during the year ended 31st December 2021. During the year under review, the Remuneration Committee reviewed the Directors' fees and the remuneration of the Executive Directors including the Arrangement. The attendance record of each member at the Remuneration Committee meeting during the year ended 31st December 2021 is set out below:

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

Board Committees (Continued)

Nomination Committee

The Company established a Nomination Committee on 19th March 2012. The Nomination Committee is jointly chaired by Dr. Lee Ka-kit and Dr. Lee Ka-shing (both are Non-executive Directors) with members who are all Independent Non-executive Directors, including Dr. the Hon. Sir David Li Kwok-po, Prof. Poon Chung-kwong and Dr. the Hon. Moses Cheng Mo-chi.

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 websites of the Exchange and the Company.

The Nomination Committee held one meeting during the year ended 31st December 2021. During the year under review, the Nomination Committee reviewed the structure, size and composition (including the skills, knowledge and experience) of the Board, the Board Diversity Policy and the Nomination Policy, and considered that the said policies were appropriate and effective. Further, the Nomination Committee also assessed the independence of all independent non-executive directors of the Company and recommended to the Board for approval of the re-election of the retiring Directors at the 2021 AGM, the acceptance of the retirement of Mr. Alfred Chan Wing-kin as Managing Director and Executive Director of the Company with effect from the conclusion of the 2022 AGM, and the appointment of Mr. Peter Wong Wai-yee (Executive Director) as Deputy Managing Director of the Company with effect from 1st April 2021; and as the Managing Director of the Company upon the retirement of Mr. Alfred Chan Wing-kin with effect from the conclusion of the 2022 AGM.

The attendance record of each member at the Nomination Committee meeting during the year ended 31st December 2021 is set out below:

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

Auditor's Remuneration

For the year ended 31st December 2021, the total remuneration in respect of statutory audit services provided by the Company's external auditor, PricewaterhouseCoopers, amounted to approximately HK$13.4 million. During the year, payment to PricewaterhouseCoopers in respect of non-audit services, mainly including taxation services, interim results review service and other transaction related services provided to the Group amounted to approximately HK$16.4 million.

Risk Management and Internal Control

Internal Control

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

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

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

During the year ended 31st December 2021, the Board, through the Board Audit and Risk Committee, has conducted a bi-annual review of the overall effectiveness of the Group's internal control systems over financial, operational and compliance controls, risk management process, information systems security, scope and quality of the management's monitoring of risks and internal control systems, the effectiveness of financial reporting and compliance with the Listing Rules.

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

Risk Management and Internal Control (Continued)

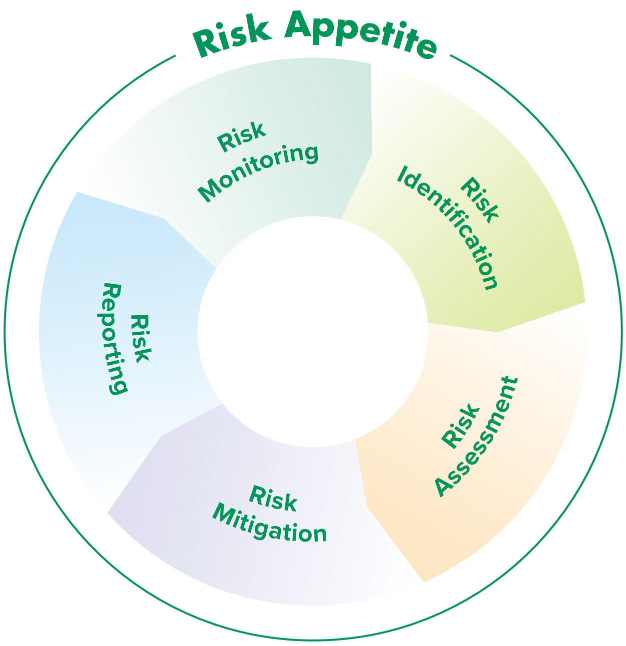
Risk Management

Risk Management Framework

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

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

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



Risk Appetite

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

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

Risk Management and Internal Control (Continued)

Risk Management (Continued)

Risk Management Structure

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

Risk Management Process

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

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

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

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

A description of the Group's risk factors is shown on pages 68 to 69 of the Annual Report. The Group seeks continuous improvement to the Framework in response to the changing business environment.

Policy and Procedures on Disclosure of Inside Information

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

Company Secretary

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

During the year ended 31st December 2021, the Company Secretary undertook no less than 15 hours of relevant professional training.

Communication with Shareholders

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

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

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

The 2021 AGM was held on 2nd June 2021. The attendance record of each Director at the 2021 AGM is set out below:

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

Convening a General Meeting

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

Shareholders' Rights (Continued)

Putting Forward Proposals at a Shareholders' Meeting

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

Putting Forward Enquiries to the Board

The Company has maintained a policy on shareholders' communication to handle enquiries put to the Board. In order to enable such enquiries be properly directed, designated contacts, email addresses and enquiry lines of the Company were provided on page 204 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 websites of the Company and the Exchange. During the year ended 31st December 2021, there was no change in the Articles of Association.

Independent Auditor's Report

羅兵咸永道

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

Opinion

What we have audited

The consolidated financial statements of The Hong Kong and China Gas Company Limited (the "Company") and its subsidiaries (the "Group"), which are set out on pages 104 to 203, comprise:

- the consolidated income statement for the year ended 31st December 2021;
- the consolidated statement of comprehensive income for the year then ended;
- the consolidated statement of financial position as at 31st December 2021;
- 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 significant accounting policies and other explanatory information.

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 2021, and of its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with Hong Kong Financial Reporting Standards ("HKFRSs") issued by the Hong Kong Institute of Certified Public Accountants ("HKICPA") and have been properly prepared in compliance with the Hong Kong Companies Ordinance.

Basis for opinion

We conducted our audit in accordance with Hong Kong Standards on Auditing ("HKSAs") issued by the HKICPA. Our responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the consolidated financial statements section of our report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Independence

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

Key audit matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Key audit matters (Continued)

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

- Valuation of investment in certain equity interest of an unlisted company
- Impairment assessment of (i) coal mine and oil properties, (ii) property, plant and equipment and goodwill of a chemical production project, and (iii) property, plant and equipment and goodwill of individual city-gas projects
- Recognition of gas connection income

Key audit matter	How our audit addressed the key audit matter
Valuation of investment in certain equity interest of an unlisted company Refer to notes 3, 4(g) and 24 to the consolidated financial statements The Group's investment in certain equity interest of an unlisted company which owned a coking coal mine and related coke production and coke-gas conversion facility in Inner-Mongolia, and its related derivative (the "Investment"), were accounted for entirely as a financial asset at fair value through profit or loss and it was subject to fair value revaluation at each reporting date. The Investment at 31st December 2021 was valued by an independent professional valuer. With reference to the valuation, management had estimated the fair value of the Investment at HK$3.2 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 and relevant option pricing models. The valuation involved significant judgements and estimates from management, including coking coal reserves, future business growth driven by future expansion plan, future products selling prices and production costs of the investee, discount rate, marketability discount, minority discount and expected fair value volatility, etc.	Our procedures in relation to management's valuation of the Investment include: • Obtaining an understanding of the management's control procedures of valuation of the Investment and assessing the inherent risk of material misstatement by considering the degree of estimation uncertainty and level of other inherent risk factors; • Evaluating the independent professional valuer's competence, capabilities and objectivity; • Assessing the valuation methodology used by the independent professional valuer to estimate the fair value of the Investment; • Checking, on a sample basis, the accuracy and reasonableness of the input data provided by management to the independent professional valuer, to supporting evidence, such as approved budgets and considering the reasonableness of these budgets by comparing the budgets to the historical results and market data; • Assessing the reasonableness of cash flows projection, challenging and performing audit procedures on management's assumptions such as coking coal reserves, the future business growth driven by future expansion plan, future products selling prices and production costs, discount rate by comparing the assumptions to historical results and published market and industry data and comparing the current year's results with the prior year forecast and other relevant information. Internal valuation expert had been engaged to assist the review on valuation methodology, discount rate, marketability discount, minority discount and expected fair value volatility. In addition, we had communicated with the management of the Investment to understand the business and assessed if there was any inconsistency in the assumptions used in the cash flows projection; and • Testing the mathematical accuracy of the cash flows projection. Based on the audit procedures performed, we found the assumptions made by management in relation to the valuation were supported by available evidence.

Key audit matters (Continued)

Key audit matter	How our audit addressed the key audit matter
Impairment assessment of (i) coal mine and oil properties, (ii) property, plant and equipment and goodwill of a chemical production project, and (iii) property, plant and equipment and goodwill of individual city-gas projects Refer to notes 4(a), 7, 16, 19, 21 and 22 to the consolidated financial statements In relation to the new energy business segment, the Group owned a coal mine in the Chinese mainland and oil properties in Thailand which were engaged in the exploration, drilling and sale of crude oil. The Group also operated a chemical production project in the Chinese mainland which was engaged in production of coal related chemical products. The carrying values of the coal mine and oil properties are mainly included under "mining and oil properties" of HK$2.1 billion of property, plant and equipment and the carrying values of the property, plant and equipment and goodwill of the chemical production project were HK$2.9 billion as at 31st December 2021. In consideration of the prices of the primary inputs/outputs (where applicable) of these projects, namely coal, oil, and coal related chemical products were volatile during the year, management considered there were impairment indicators and performed impairment assessments on these assets. Based on the results of the impairment assessments, provision for impairment against property, plant and equipment of HK$731.0 million and goodwill of HK$25.1 million for the chemical production project was recognised in the consolidated income statement for the year ended 31st December 2021.	Our procedures in relation to management's impairment assessment include: • Obtaining an understanding of the management's control procedures of impairment assessment and assessing the inherent risk of material misstatement by considering the degree of estimation uncertainty and level of other inherent risk factors; • Understanding, evaluating and testing management's control procedures in relation to impairment assessment, where applicable; • Evaluating the independent professional valuer's and consultant's competence, capabilities and objectivity, where applicable; • Assessing the methodology used by management to estimate the recoverable amounts; • Checking, on a sample basis, the accuracy and relevance of the input data to supporting evidence, such as approved budgets and considering the reasonableness of these budgets by comparing the budgets to the historical results and the market data;

Key audit matters (Continued)

Key audit matter	How our audit addressed the key audit matter
In relation to city-gas business in the Chinese mainland operated by the Group's subsidiaries, the carrying values of property, plant and equipment and goodwill related to these individual city-gas projects as at 31st December 2021 amounting to approximately HK$38.7 billion (after impairment as detailed below). The Group's share of property, plant and equipment, together with goodwill related to individual city-gas projects accounted for as associates and joint ventures of the Group as at 31st December 2021 were carried at approximately HK$18.9 billion and HK$17.5 billion respectively. In consideration of regulatory development and market-oriented reforms for the natural gas industry in the Chinese mainland, management considered there were uncertainties to future profitability from these projects and performed impairment assessments on these assets. Based on the results of these impairment assessments on these assets, provisions for impairment of HK$89.3 million and HK$31.0 million on goodwill and property, plant and equipment were recognised respectively in the consolidated income statement for the year ended 31st December 2021. Under the impairment assessments, management calculated the recoverable amounts under value-in-use or fair value less costs of disposal method. As the calculations require the use of significant management judgement and estimates, including the coal and oil reserves, future business growth, future products selling prices and production costs, expected impact of the regulatory changes, discount rate, terminal value etc., we consider it was one of the key audit matters.	• Assessing the appropriateness of cash flows projections in calculation of the recoverable amount of the coal mine and oil properties, the chemical production project and city-gas business, challenging the reasonableness of management's assumptions such as the coal and oil reserves, future business growth, future products selling prices and production costs, production volume, expected impact of regulatory changes, discount rate, terminal value, etc. based on our knowledge of the business and industry by comparing the assumptions to historical results and published market and industry data and comparing the current year's actual results with the prior year forecast, where applicable. Internal valuation expert had been engaged to assist the review on the methodology of the recoverable amount calculations and discount rates; and • Performing sensitivity analysis in consideration of potential impact of reasonably possible downside changes in the key assumptions. Based on the audit procedures performed, we found that the assumptions made by management were supported by available evidence.

Key audit matters (Continued)

Key audit matter	How our audit addressed the key audit matter
Recognition of gas connection income Refer to notes 4(e) and 5 to the consolidated financial statements Gas connection income is recognised when or as the control of the underlying performance obligations is transferred to the customer. The Group recognised gas connection income of HK$3.9 billion for the year ended 31st December 2021. Management identified performance obligations from the contract and determined corresponding transaction price. For performance obligation being satisfied at a point in time, revenue is recognised when the customer obtains control of the service. For performance obligation being satisfied over time, the progress towards complete satisfaction of the performance obligation is measured using input method. Management are required to exercise significant judgement in their review and revision of the estimates of the total contract costs and actual costs incurred up to the end of the reporting period for each contract as the contract progresses, based on past experience and specific circumstances. The eventual realisation of these estimates are subject to the finalisation of the costs. Any change in the estimate of the total contract costs, which determined the progress towards complete satisfaction of performance obligation, would affect the gas connection income recognition. Due to its quantitative significance to the consolidated income statement and judgments involved in the determination of the progress, we considered recognition of gas connection income as one of the key audit matters.	Our audit procedures in relation to recognition of gas connection income and margins included the following: • Obtaining an understanding of the management's control procedures of recognition of gas connection income and assessing the inherent risk of material misstatement by considering the degree of estimation uncertainty and level of other inherent risk factors; • Understanding, evaluating and testing the key controls surrounding the gas connection income cycle, including the assessment of project status, estimation of the total contract costs and actual costs incurred; • Evaluating the appropriateness of profit margin adopted by management by comparing to profit margin of similar services and external market data, if available; • Checking, on a sample basis, to contracts, invoices, project status reports and other relevant correspondences to evaluate the project status, reasonableness of management's assessment of budgeted total contract costs and actual costs incurred, and to validate the amounts of income recognised; and • Selecting contracts, on a sample basis, to perform interview with the project managers and assessed whether or not these estimates showed any evidence of management bias. We found the management's estimations and judgements in the recognition of gas connection income to be reasonable based on the available evidence.

Other information

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

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

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of directors and those charged with governance for the consolidated financial statements

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

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

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

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

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. We report our opinion solely to you, as a body, in accordance with Section 405 of the Hong Kong Companies Ordinance and for no other purpose. We do not assume responsibility towards or accept liability to any other person for the contents of this report. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with HKSAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

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

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.

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

(Continued)

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors.
- Conclude on the appropriateness of the directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the Group audit. We remain solely responsible for our audit opinion.

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

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

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

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

PricewaterhouseCoopers

Certified Public Accountants
Hong Kong, 21st March 2022

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 2021

	Note	2021 HK$'M	2020 HK$'M
Revenue	5	**53,563.7**	40,927.0
Total operating expenses	6	**(44,744.0)**	(32,527.1)
		8,819.7	8,399.9
Other losses, net	7	**(1,563.3)**	(481.9)
Interest expense	9	**(1,408.2)**	(1,268.6)
Share of results of associates	21	**1,885.6**	1,187.0
Share of results of joint ventures	22	**646.9**	1,089.2
Profit before taxation	10	**8,380.7**	8,925.6
Taxation	13	**(2,155.0)**	(1,713.2)
Profit for the year		**6,225.7**	7,212.4
Attributable to:			
Shareholders of the Company		**5,017.0**	6,007.3
Holders of perpetual capital securities		**110.9**	110.3
Non-controlling interests		**1,097.8**	1,094.8
		6,225.7	7,212.4
Earnings per share – basic and diluted, HK cents	15	**26.9**	32.2*

* Adjusted for the bonus share issue in 2021

The notes on pages 112 to 203 form part of these consolidated financial statements.

Consolidated Statement of Comprehensive Income

for the year ended 31st December 2021

	2021 HK$'M	2020 HK$'M
Profit for the year	**6,225.7**	7,212.4
Other comprehensive income:		
Items that will not be reclassified subsequently to profit or loss:		
Movement in reserve of equity investments at fair value through other comprehensive income	**(279.7)**	(597.6)
Remeasurements of retirement benefit	**82.8**	55.2
Share of other comprehensive loss of an associate	**–**	(19.7)
Exchange differences	**340.0**	891.6
Items that may be reclassified subsequently to profit or loss:		
Movement in reserve of debt investments at fair value through other comprehensive income	**(6.6)**	4.5
Change in fair value of cash flow hedges	**24.8**	(87.1)
Share of other comprehensive (loss)/income of an associate	**(3.5)**	4.1
Exchange differences	**1,937.2**	2,975.9
Other comprehensive income for the year, net of tax	**2,095.0**	3,226.9
Total comprehensive income for the year	**8,320.7**	10,439.3
Total comprehensive income attributable to:		
Shareholders of the Company	**6,829.6**	8,534.0
Holders of perpetual capital securities	**110.9**	110.3
Non-controlling interests	**1,380.2**	1,795.0
	8,320.7	10,439.3

The notes on pages 112 to 203 form part of these consolidated financial statements.

Consolidated Statement of Financial Position

as at 31st December 2021

	Note	2021 HK$'M	2020 HK$'M
Assets			
Non-current assets			
Property, plant and equipment	16	**72,221.5**	68,133.7
Investment property	17	**849.0**	827.0
Right-of-use assets	18	**2,938.7**	2,802.4
Intangible assets	19	**5,607.2**	5,462.9
Associates	21	**36,149.9**	28,670.3
Joint ventures	22	**12,575.2**	11,981.2
Financial assets at fair value through other comprehensive income	23	**2,170.5**	2,492.8
Financial assets at fair value through profit or loss	24	**5,047.6**	4,687.3
Derivative financial instruments	25	**331.8**	305.0
Retirement benefit assets	26	**184.0**	111.9
Other non-current assets	27	**5,804.1**	4,649.1
		143,879.5	130,123.6
Current assets			
Inventories	28	**3,140.7**	2,671.0
Trade and other receivables	29	**9,148.9**	8,572.5
Loan and other receivables from associates	21	**418.8**	401.7
Loan and other receivables from joint ventures	22	**535.9**	442.9
Loan and other receivables from non-controlling shareholders		**306.6**	206.3
Financial assets at fair value through profit or loss	24	**–**	205.4
Derivative financial instruments	25	**2.1**	28.5
Time deposits over three months	30	**77.9**	173.3
Time deposits up to three months, cash and bank balances	30	**10,557.0**	7,455.0
		24,187.9	20,156.6
Current liabilities			
Trade payables and other liabilities	31	**(18,487.6)**	(17,031.1)
Amounts due to joint ventures	22	**(189.5)**	(486.3)
Loan and other payables due to non-controlling shareholders		**(159.4)**	(108.3)
Provision for taxation		**(931.0)**	(1,188.1)
Borrowings	32	**(18,255.2)**	(10,852.3)
Derivative financial instruments	25	**(511.0)**	(140.2)
		(38,533.7)	(29,806.3)
Total assets less current liabilities		**129,533.7**	120,473.9

The notes on pages 112 to 203 form part of these consolidated financial statements.

Consolidated Statement of Financial Position (Continued)

as at 31st December 2021

	Note	2021 HK$'M	2020 HK$'M
Non-current liabilities			
Deferred taxation	33	**(7,225.4)**	(7,059.1)
Borrowings	32	**(36,855.9)**	(31,286.3)
Derivative financial instruments	25	**(856.9)**	(478.6)
Other non-current liabilities	34	**(2,756.7)**	(2,496.6)
		(47,694.9)	(41,320.6)
Net assets		**81,838.8**	79,153.3
Capital and reserves			
Share capital	35	**5,474.7**	5,474.7
Reserves	36	**61,951.7**	61,283.8
Shareholders' funds		**67,426.4**	66,758.5
Perpetual capital securities	37	**2,384.2**	2,384.0
Non-controlling interests		**12,028.2**	10,010.8
Total equity		**81,838.8**	79,153.3

Approved by the Board of Directors on 21st March 2022

Lee Ka-kit
Director

David Li Kwok-po
Director

The notes on pages 112 to 203 form part of these consolidated financial statements.

Consolidated Cash Flow Statement

for the year ended 31st December 2021

	Note	2021 HK$'M	2020 HK$'M
Net cash from operating activities	41(a)	**10,469.5**	9,910.2
Investing activities			
Receipt from sale of property, plant and equipment		**93.2**	32.6
Receipt from sale of right-of-use assets		**48.6**	5.2
Purchase of property, plant and equipment		**(7,273.5)**	(7,217.6)
Deposit paid for acquisition of an associate		**–**	(394.1)
Increase in other intangible assets		**(25.2)**	–
Payment for right-of-use assets		**(1,113.2)**	(77.3)
Increase in investments in associates		**(6,255.6)**	(268.5)
Increase in loans to associates		**(264.0)**	(75.5)
Repayment of loans by associates		**432.8**	172.9
Increase in investments in joint ventures		**(118.8)**	(307.8)
Increase in loans to joint ventures		**(68.8)**	(48.7)
Decrease in amounts due to joint ventures		**(295.1)**	(303.5)
Repayment of loans by joint ventures		**86.1**	317.1
Acquisition of businesses	42(a)	**(128.5)**	18.2
Sale of financial assets at fair value through profit or loss		**272.3**	149.3
Sale of financial assets at fair value through other comprehensive income		**101.0**	79.5
Purchase of financial assets at fair value through profit or loss		**(271.8)**	(120.1)
Purchase of financial assets at fair value through other comprehensive income		**(140.6)**	(99.0)
Decrease/(increase) in time deposits over three months		**97.5**	(8.8)
Interest received		**171.7**	183.4
Dividends received from investments in securities		**153.3**	143.9
Dividends received from associates		**1,067.7**	1,001.7
Dividends received from joint ventures		**508.9**	827.5
Net cash used in investing activities		**(12,922.0)**	(5,989.6)

The notes on pages 112 to 203 form part of these consolidated financial statements.

Consolidated Cash Flow Statement (Continued)

for the year ended 31st December 2021

	Note	2021 HK$'M	2020 HK$'M
Financing activities			
Change in loans with non-controlling shareholders		57.7	47.1
Capital injection by non-controlling shareholders		191.4	38.1
Further acquisition of subsidiaries	42(b)	(50.0)	(63.1)
Increase in borrowings		27,341.3	20,221.8
Proceeds from issue of convertible bonds		2,349.7	–
Repayment of borrowings		(16,859.0)	(16,566.4)
Principal elements of lease payments		(141.6)	(134.8)
Interest paid for the lease liability		(13.5)	(13.2)
Interest paid to holders of perpetual capital securities		(110.7)	(110.5)
Interest paid		(1,643.8)	(1,373.6)
Dividends paid to shareholders of the Company	43(a)	(6,326.6)	(6,025.4)
Dividends paid to non-controlling shareholders		(612.2)	(540.5)
Proceeds from deemed partial disposal of subsidiaries	41(d)	1,232.2	–
Purchase of shares under share award scheme of a subsidiary		(19.9)	–
Net cash generated from/(used in) financing activities		5,395.0	(4,520.5)
Increase/(decrease) in cash and cash equivalents		2,942.5	(599.9)
Cash and cash equivalents at 1st January		7,455.0	7,848.9
Effect of foreign exchange rate changes		159.5	206.0
Cash and cash equivalents at 31st December		10,557.0	7,455.0
Analysis of the balances of cash and cash equivalents			
Cash and bank balances		9,375.4	5,775.4
Time deposits up to three months		1,181.6	1,679.6
		10,557.0	7,455.0

The notes on pages 112 to 203 form part of these consolidated financial statements.

Consolidated Statement of Changes in Equity

for the year ended 31st December 2021

	Attributable to shareholders of the Company		Holders of perpetual capital securities	Non-controlling interests	Total
	Share capital HK$'M	Reserves HK$'M	HK$'M	HK$'M	HK$'M
As at 1st January 2021	5,474.7	61,283.8	2,384.0	10,010.8	79,153.3
Profit for the year	–	5,017.0	110.9	1,097.8	6,225.7
Other comprehensive income:					
Movement in reserve of financial assets at fair value through other comprehensive income	–	(218.7)	–	(67.6)	(286.3)
Remeasurements of retirement benefit	–	82.8	–	–	82.8
Change in fair value of cash flow hedges	–	14.8	–	10.0	24.8
Share of other comprehensive loss of an associate	–	(3.5)	–	–	(3.5)
Exchange differences	–	1,937.2	–	340.0	2,277.2
Total comprehensive income for the year	–	6,829.6	110.9	1,380.2	8,320.7
Capital injections in subsidiaries	–	17.6	–	173.8	191.4
Further acquisition of subsidiaries (note 42(b))	–	(29.6)	–	(20.4)	(50.0)
Acquisition of businesses (note 42(a))	–	–	–	24.1	24.1
Share-based payments of a subsidiary	–	36.5	–	–	36.5
Deemed partial disposal of subsidiaries (note 41(d))	–	136.1	–	1,096.1	1,232.2
Interest paid on perpetual capital securities	–	–	(110.7)	–	(110.7)
Dividends paid to shareholders of the Company	–	(6,326.6)	–	–	(6,326.6)
Dividends paid to non-controlling shareholders	–	–	–	(612.2)	(612.2)
Share award scheme of a subsidiary	–	4.3	–	(24.2)	(19.9)
As at 31st December 2021	5,474.7	61,951.7	2,384.2	12,028.2	81,838.8

The notes on pages 112 to 203 form part of these consolidated financial statements.

Consolidated Statement of Changes in Equity (Continued)

for the year ended 31st December 2021

	Attributable to shareholders of the Company		Holders of perpetual capital securities	Non-controlling interests	Total
	Share capital HK$'M	Reserves HK$'M	HK$'M	HK$'M	HK$'M
As at 1st January 2020	5,474.7	58,734.7	2,384.2	8,803.1	75,396.7
Profit for the year	–	6,007.3	110.3	1,094.8	7,212.4
Other comprehensive income:					
Movement in reserve of financial assets at fair value through other comprehensive income	–	(405.2)	–	(187.9)	(593.1)
Remeasurements of retirement benefit	–	55.2	–	–	55.2
Change in fair value of cash flow hedges	–	(83.6)	–	(3.5)	(87.1)
Share of other comprehensive loss of associates	–	(15.6)	–	–	(15.6)
Exchange differences	–	2,975.9	–	891.6	3,867.5
Total comprehensive income for the year	–	8,534.0	110.3	1,795.0	10,439.3
Capital injection	–	–	–	38.1	38.1
Further acquisition of subsidiaries	–	40.5	–	(103.6)	(63.1)
Acquisition of business	–	–	–	18.7	18.7
Interest paid on perpetual capital securities	–	–	(110.5)	–	(110.5)
Dividends paid to shareholders of the Company	–	(6,025.4)	–	–	(6,025.4)
Dividends paid to non-controlling shareholders	–	–	–	(540.5)	(540.5)
As at 31st December 2020	5,474.7	61,283.8	2,384.0	10,010.8	79,153.3

The notes on pages 112 to 203 form part of these consolidated financial statements.

Notes to the Consolidated Financial Statements

1 General information

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

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

2 Summary of significant accounting policies

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

(a) Basis of preparation

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

As at 31st December 2021, the Group was in a net current liabilities position of approximately HK$14.3 billion. This is mainly because of management utilisation of the relatively favourable short term borrowings under the low interest rate environment in recent years to finance (i) the settlement of the USD1 billion guaranteed notes in August 2018, (ii) the acquisition of 25% equity interest in Shanghai Gas Co., Ltd. ("Shanghai Gas") (Note 39(c) provides for details about the transaction) and (iii) other working capital and capital expenditure requirements. Taking into consideration the Group's available facilities, history of obtaining external financing and the Group's expected cash flows from operations, management believes that there are sufficient financial resources available to the Group to meet its liabilities as and when they fall due. Accordingly, these consolidated financial statements have been prepared on a going concern basis.

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

(i) Amendments to standards adopted in 2021

The Group has adopted the following amendments to standards which are effective for the Group's financial year beginning 1st January 2021 and relevant to the Group.

Amendments to HKFRS 9, HKAS 39, HKFRS 7, HKFRS 4 and HKFRS 16	Interest Rate Benchmark Reform – Phase 2

In addition, the Group has early adopted amendments to HKFRS 16 "COVID-19-related Rent Concessions" ahead of the effective date and applied the amendments from 1st January 2021.

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

2 Summary of significant accounting policies (Continued)

(a) Basis of preparation (Continued)

(ii) New standards, amendments and interpretations to existing standards which are not yet effective for the year ended 31st December 2021 but relevant to the Group and have not been early adopted by the Group

Annual Improvements Project (1)	Annual Improvements to HKFRSs 2018-2020
Amendments to HKFRS 3, HKAS 16 and HKAS 37 (1)	Narrow-scope amendments
AG5 (revised) (1)	Revised Accounting Guideline 5 Merger Accounting for Common Control Combinations
Amendments to HKAS 1 (2)	Classification of Liabilities as Current or Non-current
HKFRS 17 and Amendments to HKFRS 17 (2)	Insurance Contracts
HK Int 5 (2020) (1)	Hong Kong Interpretation 5 (2020) Presentation of Financial Statements – Classification by the Borrower of a Term Loan that Contains a Repayment on Demand Clause (HK Int 5 (2020))
Amendments to HKAS 1 and HKFRS Practice Statement 2 (2)	Disclosure of Accounting Policies
Amendments to HKAS 8 (2)	Definition of Accounting Estimates
Amendments to HKAS 12 (2)	Deferred tax related to assets and liabilities arising from a single transaction
Amendments to HKFRS10 and HKAS 28 (3)	Sale or Contribution of Assets between an Investor and its Associate or Joint Venture

(1) Effective for annual periods beginning 1st January 2022
(2) Effective for annual periods beginning 1st January 2023
(3) To be determined

Except for the amendments to HKFRSs mentioned below, the directors of the Company anticipate that the application of all other new standards, amendments and interpretations to existing standards will have no material impact on the consolidated financial statements in the foreseeable future.

Amendments to HKAS 1 "Classification of Liabilities as Current or Non-current and related amendments to Hong Kong Interpretation 5 (2020)"

The amendments provide clarification and additional guidance on the assessment of right to defer settlement for at least 12 months from reporting date for classification of liabilities as current or non-current, which:

- specify that the classification of liabilities as current or non-current should be based on rights that are in existence at the end of the reporting period. Specifically, the amendments clarify that:
  - (i) the classification should not be affected by management intentions or expectations to settle the liability within 12 months; and
  - (ii) if the right is conditional on the compliance with covenants, the right exists if the conditions are met at the end of the reporting period, even if the lender does not test compliance until a later date; and
- clarify that if a liability has terms that could, at the option of the counterparty, result in its settlement by the transfer of the entity's own equity instruments, these terms do not affect its classification as current or non-current only if the entity recognises the option separately as an equity instrument applying HKAS 32 "Financial Instruments: Presentation".

2 Summary of significant accounting policies (Continued)

(a) Basis of preparation (Continued)

(ii) New standards, amendments and interpretations to existing standards which are not yet effective for the year ended 31st December 2021 but relevant to the Group and have not been early adopted by the Group (Continued)

Amendments to HKAS 1 "Classification of Liabilities as Current or Non-current and related amendments to Hong Kong Interpretation 5 (2020)" (Continued)

In addition, Hong Kong Interpretation 5 was revised as a consequence of the "Amendments to HKAS 1" to align the corresponding wordings with no change in conclusion.

As at 31st December 2021, the Group's right to defer settlement for certain borrowings are subject to compliance with certain financial ratios within 12 months from the reporting date. Such borrowings were classified as non-current as the Group met such ratios at 31st December 2021. Pending clarification on the application of relevant requirements of the amendments, the Group will further assess the potential impacts of the amendments in relation to the borrowings with financial and other covenants. The impacts on application, if any, will be disclosed in the Group's future consolidated financial statements.

As at 31st December 2021, the Group's outstanding convertible bonds include counterparty conversion options that do not meet equity instruments classification by applying HKAS 32. The Group classified as current or non-current based on the earliest date in which the Group has the obligation to redeem these instruments through cash settlement. The debt component is measured at amortised cost with carrying amount of HK$1,956.6 million and the embedded derivative component (including the conversion options) is measured at fair value with carrying amount of HK$776.6 million as at 31st December 2021, both of which are classified as non-current as set out in note 32 and note 25 respectively. Upon the application of the amendments, in addition to the obligation to redeem through cash settlement, the transfer of equity instruments upon the exercise of the conversion options that do not meet equity instruments classification also constitute settlement of the convertible instruments. Given that the conversion options are exercisable anytime, the debt and the embedded derivative components of the convertible bonds would be reclassified to current liabilities as the holders have the option to convert within 12 months.

Except for as disclosed above, the application of the amendments is not expected to result in reclassification of the Group's other liabilities as at 31st December 2021.

(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 date of acquisition. Subsequent changes to the fair value of the contingent consideration that is deemed to be an asset or liability is recognised in accordance with HKFRS 9 in the profit or loss. Contingent consideration that is classified as equity is not remeasured, and its subsequent settlement is accounted for within equity. The Group recognises any non-controlling interest in the acquiree on an acquisition-by-acquisition basis, either at fair value or at the non-controlling interest's proportionate share of the recognised amounts of acquiree's net identifiable assets.

2 Summary of significant accounting policies (Continued)

(b) Consolidation (Continued)

(i) Subsidiaries (Continued)

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

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

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

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

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

(iii) Disposal of subsidiaries

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

(iv) Associates

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

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

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

2 Summary of significant accounting policies (Continued)

(b) Consolidation (Continued)

(iv) Associates (Continued)

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

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

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

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

(v) Joint ventures

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

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

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

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

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

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

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

2 Summary of significant accounting policies (Continued)

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

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

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

(iii) Group companies

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

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

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

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

2 Summary of significant accounting policies (Continued)

(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 profit or loss.

(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 profit or loss.

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

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

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

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

2 Summary of significant accounting policies (Continued)

(g) Deferred overburden removal costs

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

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

(h) Investment property

Property owned or held by the lessee as a right-of-use asset 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 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 (2020 Edition) published by The Hong Kong Institute of Surveyors ("HKIS"). These valuations are reviewed annually by qualified valuers. The fair value of investment property reflects, among other things, rental income from current leases and assumptions about rental income from future leases in the light of current market conditions. The fair value also reflects, on a similar basis, any cash outflows that could be expected in respect of the property.

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

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

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

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

(i) Leases

Leases are recognised as a right-of-use asset and a corresponding liability at the date at which the leased asset is available for use by the Group.

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

2 Summary of significant accounting policies (Continued)

(i) Leases (Continued)

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

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

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

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

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

Lease payments are allocated between principal and finance cost. The finance cost is charged to the profit or loss over the lease period so as to produce a constant periodic rate of interest on the remaining balance of the liability for each period.

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

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

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

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

(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 a joint venture is included in the cost of the investment of the relevant associate or joint venture. Separately recognised goodwill is tested annually for impairment and carried at cost less accumulated impairment losses. Impairment losses on separately recognised goodwill are not reversed. Gains and losses on the disposal of an entity include the carrying amount of goodwill relating to the entity sold.

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

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

2 Summary of significant accounting policies (Continued)

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

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

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

(l) Investments and other financial assets

(i) Classification

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

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

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

(ii) Recognition and derecognition

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

(iii) Measurement

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

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

Debt instruments

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

2 Summary of significant accounting policies (Continued)

(l) Investments and other financial assets (Continued)

(iii) Measurement (Continued)

Equity instruments

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

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

(iv) Impairment

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

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

(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).

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

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

Cash flow hedge that qualify for hedge accounting

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

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

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

2 Summary of significant accounting policies (Continued)

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

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

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

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

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

(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) Contract assets and contract liabilities

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

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

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

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

2 Summary of significant accounting policies (Continued)

(p) Construction contracts

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

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

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

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

(q) Trade and other receivables

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

Trade and other receivables are recognised initially at the amount of consideration that is unconditional unless they contain significant financing components, when they are recognised at fair value. The Group holds with the objective to collect the contractual cash flows and therefore measures them subsequently at amortised cost using the effective interest method, less provision for impairment. A provision for impairment is established when there is no reasonable expectation of recovery.

(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

Trade payables 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 profit or loss over the period of the borrowings using the effective interest method.

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

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

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

2 Summary of significant accounting policies (Continued)

(t) Borrowings and borrowing costs (Continued)

Convertible bonds

A conversion option that will be settled other than by the exchange of a fixed amount of cash or another financial asset for a fixed number of the Group's own equity instruments is a conversion option derivative.

At the date of the issue, both the debt instrument and the derivative components are recognised at fair value. In subsequent periods, the debt component of the convertible bonds is carried at amortised cost using the effective interest method. The derivative component is measured at fair value with changes in fair value recognised in profit or loss.

Transaction costs that relate to the issue of the convertible bonds are allocated to the debt and derivative components in proportion to their relative fair values. Transaction costs relating to the derivative component are charged to profit or loss immediately. Transaction costs relating to the debt component are included in the carrying amount of the debt portion and amortised over the period of the convertible bonds using the effective interest method.

(u) Current and deferred taxation

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

The current taxation is calculated on the basis of the tax laws enacted or substantively enacted at the statement of financial position date in the jurisdictions 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 and considers whether it is probable that a taxation authority will accept an uncertain tax treatment. The Group measures its tax balances either based on the most likely amount or the expected value, depending on which method provides a better prediction of the resolution of the uncertainty.

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

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

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

(v) Revenue and income recognition

(i) Gas sales – recognised at point in time and based on gas consumption primarily derived from meter readings.

(ii) Water sales – recognised at a point in time and based on water consumption primarily derived from meter readings.

(iii) Liquefied petroleum gas sales – recognised at a point in time and upon completion of the gas filling transaction.

(iv) Equipment sales – recognised at a point in time and upon completion of installation work or when equipment, materials and parts are delivered to customers and title has passed.

2 Summary of significant accounting policies (Continued)

(v) Revenue and income recognition (Continued)

(v) Oil, coal, hydro-treated vegetable oil and other chemical products related sales – recognised at a point in time and upon completion of delivery and title has passed.

(vi) Maintenance and service charges – recognised over time when services are provided.

(vii) Interest income – recognised on a time proportion basis, taking into account the principal amounts outstanding and the interest rates applicable.

(viii) Dividend income – recognised when the right to receive payment is established.

(ix) Rental income – recognised on a straight-line accrual basis over the terms of lease agreements.

(x) Construction and gas connection income – recognised overtime or at a point in time depending on the terms of the contracts and actual work performed.

Revenue is recognised when or as the control of the goods or service is transferred to the customer, at the amount of promised consideration to which the Group is expected to be entitled. Depending on the terms of the contract and the laws that apply to the contract, control of the good or service may be transferred over time or at a point in time.

For contracts that contain more than one performance obligations, the Group allocates the transaction price to each performance obligation on a relative stand-alone selling price basis.

The stand-alone selling price of the distinct good or service underlying each performance obligation is determined at contract inception. It represents the price at which the Group would sell a promised good or service separately to a customer. If a stand-alone selling price is not directly observable, the Group estimates it using appropriate techniques such that the transaction price ultimately allocated to any performance obligation reflects the amount of consideration to which the Group expects to be entitled in exchange for transferring the promised goods or services to the customer.

(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.

Equity-settled share-based payments are measured at fair value (excluding the effect of non-market-based vesting conditions) at the date of grant. The fair value determined at the grant date of the equity-settled share-based payments is expensed on a straight-line basis over the vesting period, based on the Group's estimate of their shares that will eventually vest and adjusted for the effect of non-market-based vesting conditions.

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 the Chinese mainland, the Group contributes on a monthly basis to various defined contribution plans organised by the relevant municipal and provincial governments in the Chinese mainland 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.

2 Summary of significant accounting policies (Continued)

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

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

(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 profit or loss when occurred.

2 Summary of significant accounting policies (Continued)

(y) Government grants

Grants from the government are recognised at their fair value when there is reasonable assurance that the grant will be received and the Group will comply with all the attached condition.

Government grants are recognised as income over the periods necessary to match them with the related costs which they are intended to compensate, on a systematic basis. Government grants relating to expenses are shown in other losses, net in the consolidated income statement.

In relation to the pandemic of COVID-19, the Group received government grants during 2020 in supporting its operations.

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 department (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, the Chinese mainland and Thailand and is exposed to foreign exchange risk arising from various unhedged currency exposures, primarily with respect to the United States dollars ("USD"), Renminbi ("RMB") and Thailand Baht ("THB"). Foreign exchange risk arises from future commercial transactions and recognised assets and liabilities.

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

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

At 31st December 2021, if the RMB had weakened/strengthened by 2 per cent (2020: 2 per cent) against HKD with all other variables held constant, pre-tax profit for the year would have been HK$37.1 million (2020: HK$43.1 million) lower/higher.

3 Financial risk management (Continued)

Financial risk factors (Continued)

(a) Market risk (Continued)

(ii) Price risk

The Group is exposed to equity securities price risk for the listed equity investments held by the Group which are classified as financial assets at FVOCI and financial assets at FVPL of HK$1,599.0 million (2020: HK$1,930.7 million) and HK$1,498.0 million (2020: HK$1,742.0 million) respectively.

The Group did not hold any unlisted equity investments which are classified as FVPL under level 1 or level 2 (2020: HK$56.3 million). The underlyings of the investments held by the Group as at 31st December 2020 were listed equity securities, which made them subject to equity securities price risk.

The Group controls this risk through active monitoring of price movements and changes in market conditions that may have an impact on the value of these financial assets and instruments.

Majority of the Group's equity securities are publicly traded and are included in one of the following indexes: Hang Seng Index, S&P 500 Index, Euro Stoxx 50 Price Index and Shanghai Stock Exchange A Share Index.

The table below summarises the impact of increases/decreases of the following indexes on the Group's pre-tax profit for the year and on other comprehensive income. The analysis is based on the assumption that the indexes had increased/decreased by 10 per cent with all other variables held constant and all the Group's equity securities moved according to the historical correlation with the indexes.

	Impact on pre-tax profit		Impact on other comprehensive income	
	2021 HK$'M	2020 HK$'M	**2021 HK$'M**	2020 HK$'M
Hang Seng Index	**–**	18.5	**4.8**	4.8
S&P 500 Index	**–**	4.4	**–**	–
Euro Stoxx 50 Price Index	**–**	4.7	**–**	–
Shanghai Stock Exchange A Share Index	**89.1**	153.2	**96.1**	148.4

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

3 Financial risk management (Continued)

Financial risk factors (Continued)

(a) Market risk (Continued)

(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$10,634.9 million (2020: HK$7,628.3 million). The Group's interest-bearing liabilities mainly comprises floating rate borrowings of HK$22,333.8 million (2020: HK$13,835.3 million), fixed rate borrowings of HK$32,777.3 million (2020: HK$28,303.3 million) and floating rate deposits received from customers of HK$1,434.0 million (2020: HK$1,392.2 million).

At 31st December 2021, if market interest rates on bank deposits had been 100 basis points (2020: 100 basis points) higher/lower with all other variables held constant, pre-tax profit for the year would have been HK$81.1 million (2020: HK$77.8 million) higher/lower, mainly as a result of higher/lower interest income on floating rate bank deposits.

At 31st December 2021, if market interest rates on borrowings and customers' deposits had been 100 basis points (2020: 100 basis points) higher/lower with all other variables held constant, pre-tax profit for the year would have been HK$210.0 million (2020: HK$172.9 million) lower/higher, mainly as a result of higher/lower interest expense on floating rate borrowings and customers' deposits.

(b) Credit risk

Credit risk of the Group mainly arises from:

	2021 HK$'M	2020 HK$'M
Cash and bank deposits	**10,634.9**	7,628.3
Debt securities and derivative financial instruments	**757.3**	413.1
Trade receivables	**4,211.8**	3,827.9
Other receivables	**3,153.7**	2,586.0
Loan and other receivables from joint ventures	**535.9**	442.9
Loan and other receivables from associates	**1,161.5**	1,336.7
Loan and other receivables from non-controlling shareholders	**306.6**	206.3
Other non-current assets	**3,586.0**	3,283.1

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 Chinese mainland associates and joint ventures where there is no significant concentration of sales to any individual customer. Other non-current assets mainly represent aviation fuel facility construction receivable. Management considered that counterparty default risk is low and there is no history of default in repayment. Debt securities, derivative financial instruments entered with financial institutions 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.

3 Financial risk management (Continued)

Financial risk factors (Continued)

(b) Credit risk (Continued)

The Group monitors the exposure to credit risk in respect of the financial assistance provided to its joint ventures and associates through exercising joint control or influence over their financial and operating policy decisions and reviewing their financial positions on a regular basis.

The credit quality of financial assets can be assessed by reference to external credit ratings (if available) or to historical information about counterparty default rates is as follows:

	2021 %	2020 %
Cash and bank deposits		
AA	**2.1**	1.6
A	**58.7**	74.4
BBB	**31.4**	17.8
Unrated	**7.8**	6.2
	100.0	100.0
Debt securities		
AA	**10.2**	27.7
A	**21.0**	67.0
BBB	**1.7**	5.3
Unrated	**67.1**	–
	100.0	100.0
Derivative financial instruments		
AA	**3.5**	3.8
A	**94.5**	96.2
BBB	**2.0**	–
	100.0	100.0

Credit ratings are quoted from Bloomberg.

Credit quality of loan and other receivables from associates, loan and other receivables from joint ventures, other non-current assets and trade and other receivables are disclosed in notes 21, 22, 27 and 29 respectively to the consolidated financial statements.

The Group has several types of financial assets that are subject to the expected credit loss model, including trade receivables, other receivables, loan and other receivables from associates, joint ventures and non-controlling shareholders, aviation fuel facility construction receivable and debt investments carried at amortised cost or FVOCI. While cash and cash equivalents are also subject to the impairment requirements of HKFRS 9, the identified impairment loss was immaterial.

3 Financial risk management (Continued)

Financial risk factors (Continued)

(b) Credit risk (Continued)

Trade receivables and contract assets

The Group applies the simplified approach to provide for expected credit losses prescribed by HKFRS 9, which permits the use of the lifetime expected credit loss provision for trade receivables and contract assets. The expected credit loss provision rates for trade receivables and contract assets are based on historical payment profiles and historical credit loss experience, adjusted to reflect, where relevant and appropriate, current and information specific to the debtors, future economic and market conditions and forward-looking information on macroeconomic factors (e.g. Gross Domestic Product) affecting the ability of the debtors to settle the receivables that the Group considers are reasonable and appropriate. To measure the expected credit losses, trade receivables and contract assets have been grouped based on the days past due. The gross carrying amount of the trade receivables, contract assets and the loss allowance provision analysed by aging band are set out below:

	Current	1-30 days	31-60 days	61-90 days	Over 90 days	Total
31st December 2021						
Expected loss rate	**0.3%**	**0.3%**	**2.3%**	**4.0%**	**44.8%**	**4.9%**
Gross carrying amount – trade receivables and contract assets	**3,267.0**	**1,040.0**	**103.9**	**105.4**	**512.5**	**5,028.8**
Loss allowance	**6.9**	**3.3**	**2.4**	**4.2**	**229.4**	**246.2**
31st December 2020						
Expected loss rate	0.3%	0.4%	2.6%	5.4%	49.4%	6.2%
Gross carrying amount – trade receivables and contract assets	3,316.1	787.7	128.5	53.8	576.1	4,862.2
Loss allowance	6.6	3.2	3.3	2.9	284.9	300.9

The closing loss allowance for trade receivables as at 31st December 2021 and 2020 reconcile to the opening loss allowance as follows:

	Loss allowance for trade receivables	
	2021 HK$'M	2020 HK$'M
At 1st January	**300.9**	248.0
Increase in loss allowance recognised in the profit or loss during the year	**39.7**	42.5
Receivables written off during the year as uncollectible	**(99.0)**	(1.6)
Unused amount reversed	**(2.9)**	(1.4)
Exchange differences	**7.5**	13.4
At 31st December	**246.2**	300.9

A provision for impairment is established when there is no reasonable expectation of recovery. Indicators that there is no reasonable expectation of recovery include, amongst others, the failure of a debtor to engage in a repayment plan with the Group, and a failure to make contractual payments after certain periods of time.

3 Financial risk management (Continued)

Financial risk factors (Continued)

(b) Credit risk (Continued)

Other receivables, loans and other receivables from associates, joint ventures and non-controlling shareholders, and aviation fuel facility construction receivable

Impairment on other receivables, loans and other receivables from associates, joint ventures and non-controlling shareholders, and aviation fuel facility construction receivable are measured as either 12-month expected credit losses or lifetime expected credit losses, depending on whether there has been a significant increase in credit risk since initial recognition. If a significant increase in credit risk of a receivable has occurred since initial recognition, then loss allowance is measured as lifetime expected credit losses.

The Group applies 12-month expected credit loss model under HKFRS 9 and considers there is no significant increase in credit risk since initial recognition. The loss allowance for other receivables and loans and other receivables from associates, joint ventures and non-controlling shareholders as a result of applying the expected credit loss model was immaterial.

Other financial investments

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

Taking into account the ongoing dealings with counterparties and securities pledged by the counterparties, management consider 'low credit risk' for the derivative financial instruments.

(c) Liquidity risk

Prudent liquidity risk management implies maintaining sufficient cash and marketable securities, the availability of funding through an adequate amount of credit facilities and the ability to close out market positions. Due to the dynamic nature of the underlying businesses, Group Treasury aims to maintain flexibility in funding by keeping adequate free cash and credit lines available.

The Group determines that there is no significant liquidity risk in view of the adequate and stable sources of funds and unutilised banking facilities.

3 Financial risk management (Continued)

Financial risk factors (Continued)

(c) Liquidity risk (Continued)

The table below analyses the Group's major financial liabilities into relevant maturity groupings based on the remaining period at the date of statement of financial position to the contractual maturity date. The amounts disclosed in the table are the contractual undiscounted cash flows, except for derivative financial instruments. Non-interest-bearing 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 2021				
Trade and other payables	**6,425.3**	**–**	**–**	**–**
Loan and other payables to joint ventures	**189.5**	**–**	**–**	**–**
Loan and other payables to non-controlling shareholders	**159.4**	**40.8**	**98.5**	**–**
Borrowings	**20,031.5**	**7,906.0**	**20,284.6**	**15,708.7**
Lease liabilities	**114.6**	**85.4**	**115.0**	**61.4**
Derivative financial instruments	**511.0**	**70.7**	**776.7**	**9.6**
At 31st December 2020				
Trade and other payables	5,453.4	–	–	–
Loan and other payables to joint ventures	486.3	–	–	–
Loan and other payables to non-controlling shareholders	108.3	–	20.9	–
Borrowings	12,045.4	9,795.2	10,696.2	17,911.7
Lease liabilities	115.5	67.9	78.6	73.0
Derivative financial instruments	140.2	421.4	57.2	–

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 net movement in customers' deposits is not significant based on past experience.

Capital risk management

The Group's objectives when managing capital are to safeguard the Group's ability to continue as a going concern in order to provide returns for shareholders and benefits for other stakeholders and to maintain an optimal capital structure to reduce the cost of capital.

In order to maintain or adjust the capital structure, the Group may adjust the amount of dividends paid to shareholders, return capital to shareholders, buy back existing shares, drawdown and repay borrowings, issue and redeem perpetual capital securities, issue new shares or convertible bonds, 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 total equity and net borrowing. Net borrowing is calculated as total borrowings, less time deposits, cash and bank deposits as shown in the consolidated statement of financial position. Lease liabilities are excluded from the calculation of this ratio.

3 Financial risk management (Continued)

Capital risk management (Continued)

The gearing ratios at 31st December 2021 and 2020 are as follows:

	2021 HK$'M	2020 HK$'M
Total borrowings	**(55,111.1)**	(42,138.6)
Less: Time deposits, cash and bank deposits	**10,634.9**	7,628.3
Net borrowing	**(44,476.2)**	(34,510.3)
Total equity	**(81,838.8)**	(79,153.3)
Net borrowing	**(44,476.2)**	(34,510.3)
	(126,315.0)	(113,663.6)
Gearing ratio	**35%**	30%

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 financial assets and financial liabilities that are measured at fair value at 31st December 2021 and 2020.

	Level 1		Level 2		Level 3		Total	
HK$'M	**2021**	2020	**2021**	2020	**2021**	2020	**2021**	2020
Financial assets								
Financial assets at FVPL								
– Debt securities	**284.2**	–	**–**	–	**–**	–	**284.2**	–
– Equity investments	**1,498.0**	1,742.0	**–**	56.3	**3,265.4**	3,094.4	**4,763.4**	4,892.7
Derivative financial instruments	**–**	–	**71.1**	79.1	**262.8**	254.4	**333.9**	333.5
Financial assets at FVOCI								
– Debt securities	**139.2**	158.7	**–**	–	**–**	–	**139.2**	158.7
– Equity investments	**1,599.0**	1,930.7	**–**	–	**432.3**	403.4	**2,031.3**	2,334.1
Total financial assets	**3,520.4**	3,831.4	**71.1**	135.4	**3,960.5**	3,752.2	**7,552.0**	7,719.0
Financial liabilities								
Other payables	**–**	–	**–**	–	**154.0**	154.0	**154.0**	154.0
Derivative financial instruments	**–**	–	**591.3**	618.8	**776.6**	–	**1,367.9**	618.8
Total financial liabilities	**–**	–	**591.3**	618.8	**930.6**	154.0	**1,521.9**	772.8

3 Financial risk management (Continued)

Fair value estimation (Continued)

There are no changes in valuation techniques during the year.

The fair value of financial instruments traded in active markets is based on quoted market prices at the end of the reporting year. A market is regarded as active if quoted prices are readily and regularly available from an exchange, dealer, broker, industry group, pricing service, or regulatory agency, and those prices represent actual and regularly occurring market transactions on an arm's length basis. The quoted market price used for financial assets held by the Group is the current bid price. These instruments are included in level 1.

The fair value of financial instruments that are not traded in an active market (for example, over-the-counter derivatives) is determined by using valuation techniques. These valuation techniques maximise the use of observable market data where it is available and rely as little as possible on entity specific estimates. If all significant inputs required to fair value an instrument are observable, the instrument is included in level 2.

Specific valuation techniques used to value financial instruments include:

- Quoted market prices or dealer quotes for similar instruments.
- The fair value of cross currency swaps is calculated as the present value of the estimated future cash flows based on observable foreign exchange rates and yield curves.
- The fair value of interest rate swaps is calculated as the present value of the estimated future cash flows based on observable yield curves.
- The fair value of forward foreign exchange contracts is calculated as the present value of future cash flows based on the forward exchange rates at the end of the reporting period.

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

- Financial assets include a total of approximately HK$3.2 billion (2020: approximately HK$3.1 billion) of an unlisted equity investment and its related derivative, which are considered entirely as financial assets at FVPL. 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 12.0 per cent (2020: 13.0 per cent), sales price, sales volume and expected free cash flows of the investee. The fair value decreases with the increase in the discount rate, and increases with the increase in the sales price, sales volume or expected free cash flows of the investee. In respect of the related derivative, the fair value is determined based on the binomial and black scholes models. The significant unobservable inputs, except for those included in the fair value of the unlisted equity investment, mainly include 47.9 per cent (2020: 33.6 per cent) expected volatility of the fair value of the unlisted equity investment. The fair value increases with the increase in the expected volatility.
- Financial assets also include derivative financial instrument of approximately HK$0.3 billion (2020: approximately HK$0.3 billion), the fair value is determined based on the binomial model. The significant unobservable inputs include discount rate of 10.2 per cent (2020: 10.2 per cent) and share price expected volatility of the fair value of the underlying equity instrument of 36.2 per cent (2020: 35.5 per cent). The fair value increases with the decrease in discount rate and increase in share price expected volatility or decreases with the increase in the discount rate and decrease in share price expected volatility.
- Financial assets also include unlisted equity investments of approximately HK$0.5 billion (2020: approximately HK$0.4 billion), the fair values of which are determined with reference to their attributable net assets values and recent comparable transaction price, where available, being significant unobservable inputs. The fair value increases with the increase in the attributable net assets value and recent comparable transaction price, where available.

3 Financial risk management (Continued)

Fair value estimation (Continued)

- Financial liabilities include contingent consideration of approximately HK$0.2 billion (2020: approximately HK$0.2 billion), which is generated from the further acquisition of a subsidiary in 2015 under other payables in level 3. The fair value is determined based on discounted cash flow model. The significant unobservable inputs include discount rate of 3.1 per cent (2020: 3.1 per cent) and the rate of probability on the outflow of resources will be required to settle the obligation. The fair value decreases with the increase in the discount rate, and increases with the increase in the rate of probability.
- Financial liabilities also include embedded derivative component of convertible bonds of approximately HK$0.8 billion, the fair value of which is determined based on binomial option pricing model. The significant unobservable inputs include share price expected volatility of 34.1 per cent. The fair value increases with the increase in the share price expected volatility.

The following table presents the changes in level 3 instruments of the Group for the year ended 31st December 2021 and 2020.

	Financial assets		Financial liabilities	
	2021 HK$'M	2020 HK$'M	**2021 HK$'M**	2020 HK$'M
At 1st January	**3,752.2**	3,519.2	**154.0**	154.0
Additions	**164.8**	40.2	**409.4**	–
Change in fair value	**(47.7)**	(14.7)	**358.6**	–
Exchange differences	**91.2**	207.5	**8.6**	–
At 31st December	**3,960.5**	3,752.2	**930.6**	154.0

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

4 Critical accounting estimates and judgements

Estimates and judgements are continually evaluated by management and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. Management incorporates their assessment on the impact arising from the ongoing development of the COVID-19 pandemic and other relevant global political and economic situations into their evaluation.

The Group makes estimates and assumptions concerning the future. The resulting accounting estimates will, by definition, seldom equal the related actual results.

(a) Estimated impairment of assets

The Group tests annually whether goodwill has suffered any impairment or whenever events of changes in circumstances indicates 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 of the assets exceeds its recoverable amount. The recoverable amounts of the assets and cash-generating units have been determined based on the higher of fair value less costs of disposal and value-in-use calculations, and reflecting management's latest business plans and strategies in light of the latest market environment and the management's assessment on the business prospect thereof as of 31st December 2021. These calculations require the use of estimates which includes the following key assumptions as detailed below:

4 Critical accounting estimates and judgements (Continued)

(a) Estimated impairment of assets (Continued)

Mining and oil properties in the Chinese mainland and Thailand

In respect to the Group's mining and oil properties in the Chinese mainland and Thailand respectively (under New Energy business segment), the Group tested them for impairment by estimating the recoverable amount of these projects as at 31st December 2021. The key assumptions adopted in the test were coal and oil reserves, future business growth, future products selling prices and production costs, production volume and discount rate of 10.0 per cent to 11.2 per cent (2020: 10.5 per cent to 11.0 per cent). Based on the result of the tests, no impairment loss was recognised in the profit or loss for the year ended 31st December 2021 (2020: impairment loss of HK$385.0 million). Assuming projected revenue decreased by 5.0 per cent and 3.0 per cent for mining and oil properties respectively or the discount rate increased by 100 basis point, the recoverable amount calculated for each of these projects would not result in a further material loss to the Group.

Chemical production project in the Chinese mainland

In respect to a chemical production project of the Group in the Chinese mainland which produces industrial chemical products including methanol (under New Energy business segment), the Group tested it for impairment by estimating the recoverable amount of the project as at 31st December 2021. The key assumptions adopted in the test were future business growth, future products selling prices and production costs, production volume and discount rate of 10.0 per cent (2020: 10.0 per cent). Based on the result of the tests, impairment loss of HK$731.0 million against property, plant and equipment and HK$25.1 million against goodwill were recognised in the profit or loss for the year ended 31st December 2021 (2020: Nil). Assuming projected revenue and projected production costs decreased by 5.0 per cent or the discount rate increased by 100 basis point, the recoverable amount calculated for the project would not result in a further material loss to the Group.

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

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

The assessment for each of the city-gas projects is based on value-in-use approach using the discounted cash flow method. The estimated cash flows used in the assessment are derived based on the most recent financial budget as of 31st December 2021 for the next five years approved by management. Cash flows beyond five-year period until the end of the relevant concession periods are determined by considering both internal and external factors relating to the cash-generating units. The Group is of the view that, in order to achieve a smooth transition to both the gas project operators and the society, the existing gas pricing mechanism would be adopted continuously for certain years and thereafter gradually implemented before 2030. The connecting fee margin was also reduced by management to address the rationale that drove the issue of the Guiding Opinions. The terminal value is determined by management with reference to applicable valuation basis and relevant rules and regulations. Discount rate ranged between 8.2 per cent to 16.0 per cent (2020: 8.5 per cent to 11.0 per cent) was used to reflect specific risk relating to the investments. In relation to city-gas business in the Chinese mainland operated by the Group's subsidiaries, the aggregate carrying values of property, plant and equipment and goodwill related to these individual city-gas projects as at 31st December 2021 amounting to approximately HK$38.7 billion, after impairment as detailed below (2020: HK$34.6 billion). The Group's share of property, plant and equipment, together with goodwill related to individual city-gas projects accounted for as associates and joint ventures of the Group as at 31st December 2021 were carried at approximately HK$18.9 billion and HK$17.5 billion respectively (2020: approximately HK$12.0 billion and HK$17.0 billion respectively). Based on the assessment, provisions for impairment of HK$89.3 million and HK$31.0 million on goodwill and property, plant and equipment were recognised in the profit or loss for the year ended 31st December 2021 (2020: Nil).

4 Critical accounting estimates and judgements (Continued)

(a) Estimated impairment of assets (Continued)

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

The assumptions used in the assessment are highly judgemental, and heavily dependent on the timing and the extent the pricing mechanism as detailed in the Guiding Opinions will be implemented as well as the discount rate used and the terminal value. If the discount rate is increased by 50 basis points and all other variables are held constant, the recoverable amount calculated for each of these projects would not result in a further material loss to the Group. If the terminal value is decreased by 10 per cent and all other variables are held constant, the recoverable amount calculated for each of these projects would not result in a further material loss to the Group.

(b) Property, plant and equipment

The Group's management determines the estimated useful lives and related depreciation charges for its property, plant and equipment. This estimate is based on the historical experience of the actual useful lives of the property, plant and equipment of similar nature and functions. It could change significantly as a result of technical innovation. Management will change the depreciation charge where useful lives are different from the previously estimated lives. It will also write off or write down technically obsolete or non-strategic assets that have been abandoned or sold. For cost incurred and capitalised as property, plant and equipment, management assessed whether the Group has control over these assets based on relevant regulations and the terms as stipulated in the relevant agreements, where applicable.

(c) Estimate of fair value of investment property

The valuation of investment properties (including those held by an associate) is performed in accordance with The HKIS Valuation Standards (2020 Edition) published by HKIS and the 'International Valuation Standards' published by the International Valuation Standards Committee. The valuation is reviewed annually by qualified valuers by considering the information from a variety of sources including:

- current prices in an active market for properties of different nature, condition or location, adjusted to reflect those differences;
- recent prices of similar properties in less active markets, with adjustments to reflect any changes in economic conditions since the date of the transactions that occurred at those prices; and
- rental income derived from the terms of any existing lease and other contracts, and (where possible) from external evidence such as current market rents for similar properties in the same location and condition, and using capitalisation rates that reflect current market assessments of the uncertainty in the amount and timing of the rental income.

If information on current or recent prices of investment properties is not available, the fair values of investment properties are mainly determined using income capitalisation valuation techniques. The Group uses assumptions that are mainly based on market conditions existing at each date of statement of financial position.

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

(d) Estimate of gas and water consumption

Revenue for gas and water supply may include an estimation of the gas and water supplied to the customers of which actual meter reading is not available. The estimation is done mainly based on the past consumption records and recent consumption pattern of the customers. As of the year-end date, the overall billed gas and water sales are in line with the gas and water supplied to the customers.

4 Critical accounting estimates and judgements (Continued)

(e) Recognition of gas connection income and allocation of transaction price

Critical judgements in recognising revenue

Gas connection income is recognised when or as the control of the underlying performance over time, the progress towards complete satisfaction of the performance obligation is measured using input method. Management are required to exercise significant judgement in their review and revision of the estimates of the total contract costs and actual costs incurred up to the end of the reporting period for each contract as the contract progresses, based on past experience and specific circumstances.

Critical judgements in allocating the transaction price

Some gas connection contracts include installation services. Because these contracts include performance obligations, the transaction price must be allocated to the performance obligations on a relative stand-alone selling price basis.

Management estimates that the stand-alone selling price at contract inception based on expected cost plus a margin approach for installation services and residual approach for connection services.

(f) Reserves estimates

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

Estimating the quantity and/or grade of reserves requires the size, shape and depth of ore bodies or fields to be determined by analysing geological data such as drilling samples. This process may require complex and difficult geological judgements and calculations to interpret the data.

Because the economic assumptions used to estimate reserves changes from period to period, and because additional geological data is generated during the course of operations, estimates of reserves may change from period to period. Changes in reported reserves may affect the Group's financial results and financial position in a number of ways, including the following:

- Asset carrying values may be affected due to changes in estimated future cash flows.
- Depreciation charged in the profit or loss may change where such charges are determined by the units of production basis, or where the useful economic lives of assets change.
- Decommissioning, site restoration and environmental provisions may change where changes in estimated reserves affect expectations about the timing or cost of these activities.

(g) Estimate of fair value of equity investments

The fair value of financial assets that are not traded in an active market is determined by using valuation techniques. The Group uses its judgement to select a variety of methods (such as discounted cash flow model) and makes assumptions that are mainly based on market conditions existing at each date of statement of financial position. Details of the key assumptions used and the impact of changes to these assumptions are described in note 3.

(h) Estimate of purchase cost of natural gas

In respect of the purchase of natural gas of the Group's Chinese mainland city-gas projects, under certain situations, as at the end of the financial year, the ultimate purchase cost of certain portion of supplied natural gas of certain projects is yet to be finalised and subject to negotiation with the suppliers due to different supply allocation bases and volatile commodity price environment. The Group exercises judgement in estimating the purchase cost, taking into account latest negotiation status, past experience and other relevant factors. For the year ended 31st December 2021, the difference between the estimated and ultimate purchase cost is not expected to be material to the consolidated financial statements as a whole.

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 the Chinese mainland. The revenue comprises the following:

	2021 HK$'M	2020 HK$'M
Gas sales before fuel cost adjustment	**37,434.0**	29,547.2
Fuel cost adjustment	**806.7**	447.2
Gas sales after fuel cost adjustment	**38,240.7**	29,994.4
Gas connection income	**3,924.4**	3,161.0
Equipment sales and maintenance services	**3,456.3**	2,867.5
Water and related sales	**1,762.7**	1,360.4
Oil and coal related sales	**1,158.7**	785.5
Hydro-treated vegetable oil related sales	**2,604.9**	964.3
Other sales	**2,416.0**	1,793.9
	53,563.7	40,927.0

The chief operating decision-maker has been identified as the executive committee members (the "ECM") of the Company. The ECM reviews the Group's internal reporting in order to assess performance and allocate resources. The ECM considers the business from both product and geographical perspectives. 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 the Chinese mainland).

The ECM assesses the performance of the operating segments based on a measure of adjusted EBITDA. Other information provided, except as noted below, to the ECM is measured in a manner consistent with that in the consolidated financial statements.

5 Segment information (Continued)

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

2021 HK$'M	Gas, water and related businesses: Hong Kong	Gas, water and related businesses: Chinese mainland	New Energy	Property	Other segments	Total
Revenue recognised at a point in time	9,982.4	35,104.0	5,657.3	–	231.4	50,975.1
Revenue recognised over time	–	1,192.0	–	–	863.0	2,055.0
Finance and rental income	–	–	474.1	59.5	–	533.6
	9,982.4	36,296.0	6,131.4	59.5	1,094.4	53,563.7
Adjusted EBITDA	4,886.0	6,505.2	1,053.4	30.5	227.3	12,702.4
Depreciation and amortisation	(871.2)	(1,781.2)	(401.4)	–	(186.6)	(3,240.4)
Unallocated expenses						(642.3)
						8,819.7
Other losses, net						(1,563.3)
Interest expense						(1,408.2)
Share of results of associates	–	1,355.8	94.5	431.6	3.7	1,885.6
Share of results of joint ventures	–	638.1	1.0	10.6	(2.8)	646.9
Profit before taxation						8,380.7
Taxation						(2,155.0)
Profit for the year						6,225.7

There is no material change in the valuation of the Group's shared investment properties at the International Finance Centre complex for the year (2020: a decrease of HK$477.0 million included in the share of results of associates).

5 Segment information (Continued)

2020 HK$'M	Gas, water and related businesses: Hong Kong	Gas, water and related businesses: Chinese mainland	New Energy	Property	Other segments	Total
Revenue recognised at a point in time	9,516.7	25,914.0	3,041.8	–	189.8	38,662.3
Revenue recognised over time	–	994.4	–	–	783.7	1,778.1
Finance and rental income	–	–	434.6	52.0	–	486.6
	9,516.7	26,908.4	3,476.4	52.0	973.5	40,927.0
Adjusted EBITDA	4,865.7	6,067.2	793.0	25.4	197.6	11,948.9
Depreciation and amortisation	(857.0)	(1,535.0)	(319.6)	–	(177.1)	(2,888.7)
Unallocated expenses						(660.3)
						8,399.9
Other losses, net						(481.9)
Interest expense						(1,268.6)
Share of results of associates	–	1,186.9	32.6	(39.0)	6.5	1,187.0
Share of results of joint ventures	–	1,082.3	1.3	10.2	(4.6)	1,089.2
Profit before taxation						8,925.6
Taxation						(1,713.2)
Profit for the year						7,212.4

The segment assets at 31st December 2021 and 2020 are as follows:

2021 HK$'M	**Gas, water and related businesses: Hong Kong**	**Gas, water and related businesses: Chinese mainland**	**New Energy**	**Property**	**Other segments**	**Total**
Segment assets	**18,952.2**	**100,401.4**	**18,398.3**	**15,752.3**	**4,591.5**	**158,095.7**
Unallocated assets:						
Financial assets at FVOCI						**2,170.5**
Financial assets at FVPL						**5,047.6**
Time deposits, cash and bank balances excluded from segment assets						**1,314.0**
Others (note)						**1,439.6**
Total assets						**168,067.4**

5 Segment information (Continued)

2020 HK$'M	Gas, water and related businesses Hong Kong	 Chinese mainland	New Energy	Property	Other segments	Total
Segment assets	17,756.5	82,048.7	18,587.0	15,707.0	4,702.0	138,801.2
Unallocated assets:						
Financial assets at FVOCI						2,492.8
Financial assets at FVPL						4,892.7
Time deposits, cash and bank balances excluded from segment assets						2,808.3
Others (note)						1,285.2
Total assets						150,280.2

Note

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

The Company is domiciled in Hong Kong. The Group's revenue from external customers in Hong Kong for the year ended 31st December 2021 is HK$11,728.9 million (2020: HK$11,029.7 million), and the revenue from external customers in the Chinese mainland and other geographical locations is HK$41,834.8 million (2020: HK$29,897.3 million).

At 31st December 2021, the total of non-current assets other than financial instruments located in Hong Kong is HK$35,093.8 million (2020: HK$34,352.3 million), and the total of non-current assets other than financial instruments located in the Chinese mainland and other geographical locations is HK$101,235.8 million (2020: HK$88,286.2 million).

For the years ended 31st December 2021 and 2020, the percentage of revenues attributable to the Group's five largest customers is less than 30 per cent.

6 Total operating expenses

	2021 HK$'M	2020 HK$'M
Stores and materials used	**32,591.8**	21,986.5
Manpower costs (note 11)	**3,623.8**	3,284.2
Depreciation and amortisation	**3,288.6**	2,940.6
Other operating items	**5,239.8**	4,315.8
	44,744.0	32,527.1

7 Other losses, net

	2021 HK$'M	2020 HK$'M
Net investment gains/(losses) (note 8)	**354.9**	(162.3)
Fair value gain/(loss) on investment property (note 17)	**22.0**	(3.0)
Provision for assets (note)	**(1,531.7)**	(446.8)
Ineffective portion on cash flow hedges	**4.9**	6.9
Change in fair value of embedded derivative component of convertible bonds (note 32(b))	**(358.6)**	–
Others	**(54.8)**	123.3
	(1,563.3)	(481.9)

Note

For the year ended 31st December 2021, the amount included impairment provision against goodwill of HK$25.1 million and property, plant and equipment of HK$731.0 million in relation to a chemical production project under New Energy business segment, and included impairment provision against goodwill of HK$89.3 million and property, plant and equipment of HK$31.0 million in relation to several city-gas projects in the Chinese mainland. The remaining balance was provided mainly for other projects under the New Energy business segment and other segments. For the year ended 31st December 2020, the amount included an impairment provision of HK$385.0 million in relation to oil properties under New Energy business segment.

8 Net investment gains/(losses)

	2021 HK$'M	2020 HK$'M
(a) Interest income		
Bank deposits	**105.4**	107.0
Listed financial assets at FVOCI	**2.2**	3.0
Loans to associates and joint ventures	**51.5**	63.9
Others	**11.9**	13.3
	171.0	187.2
(b) Net realised and unrealised (losses)/gains and interest income on financial assets at FVPL and derivative financial instruments		
Listed securities	**(31.8)**	(570.4)
Unlisted securities	**(23.3)**	(47.1)
Exchange differences	**2.3**	(1.0)
	(52.8)	(618.5)
(c) Net realised and unrealised gains/(losses) on financial assets at FVOCI		
Exchange differences	**1.7**	(2.0)
	1.7	(2.0)
(d) Dividend income		
Listed financial assets at FVPL	**43.2**	36.8
Listed financial assets at FVOCI	**48.2**	46.4
Unlisted financial assets at FVOCI	**61.9**	60.7
	153.3	143.9
(e) Exchange gains	**81.7**	127.1
	354.9	(162.3)

9 Interest expense

	2021 HK$'M	2020 HK$'M
Interest on bank loans and overdrafts wholly repayable within five years	**906.6**	851.0
Interest on guaranteed notes wholly repayable within five years	**271.7**	204.9
Interest on guaranteed notes not wholly repayable within five years	**354.3**	361.4
Interest on convertible bonds	**9.3**	–
Interest on lease liabilities	**13.5**	13.2
	1,555.4	1,430.5
Less: amount capitalised	**(147.2)**	(161.9)
	1,408.2	1,268.6

The interest expense is capitalised at average rates from 2.59 per cent to 6.18 per cent (2020: 2.96 per cent to 5.35 per cent) per annum.

10 Profit before taxation

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

	2021 HK$'M	2020 HK$'M
Cost of inventories sold	**32,045.3**	23,054.0
Depreciation and amortisation	**3,288.6**	2,940.6
Loss on disposal/write off of property, plant and equipment	**18.4**	72.6
(Gain)/loss on disposal of right-of-use assets	**(26.0)**	1.4
Impairment loss of trade receivables	**39.7**	42.5
Rental income from investment property		
– gross rental income	**(59.5)**	(52.0)
– outgoing expenses	**28.8**	26.4
Auditors' remuneration		
– audit services	**32.7**	30.0
– non-audit services	**17.9**	9.4
Net loss on residential maintenance (note)	**81.5**	70.4

Note

	2021 HK$'M	2020 HK$'M
Analysis of net loss on residential maintenance:		
Residential maintenance revenue	**(218.9)**	(213.6)
Less expenses:		
Manpower costs	**175.1**	169.7
Other operating and administrative expenses	**125.3**	114.3
Net loss	**81.5**	70.4

11 Manpower costs

(a) Staff costs

	2021 HK$'M	2020 HK$'M
Salaries and wages	**3,178.1**	3,009.3
Pension costs – defined contribution retirement schemes	**431.0**	261.0
Pension costs – defined benefit retirement scheme (note 26)	**14.7**	13.9
	3,623.8	3,284.2

During the year, a subsidiary of the Group issued equity-settled share-based payments to certain employees to allow them to invest indirectly in the equity interest in a subsidiary engaging in the New Energy business. Such expense of HK$36.5 million (2020: Nil) is included in "Other losses, net" in the profit or loss as shown in note 7.

(b) Five highest paid individuals

The five individuals whose emoluments were the highest in the Group for the year include three (2020: three) directors whose emoluments are reflected in the analysis shown in note 12. Details of the emoluments payable to the remaining two (2020: two) individuals during the year are as follows:

	2021 HK$'M	2020 HK$'M
Fee, salaries, allowances and benefits in kind	**5.2**	5.3
Performance bonus	**7.1**	8.1
Contributions to retirement scheme	**1.6**	2.4
Share-based payment benefits	**16.4**	–
	30.3	15.8

Number of individuals whose emoluments fell within:

Emoluments band (HK$'M)	2021	2020
20.0 – 20.5	**1**	–
9.5 – 10.0	**1**	–
8.5 – 9.0	**–**	1
7.0 – 7.5	**–**	1

(c) Emoluments of senior management

Senior management for the years ended 31st December 2021 and 2020 were all executive directors of the Company whose emoluments have been shown in note 12.

12 Benefits and interests of directors

(a) Directors' emoluments

Name of director	Emoluments paid or payable to every director whether of the Company or its subsidiary undertaking					
	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
2021						
Alfred Chan Wing-kin (Managing Director) (note (i) and (ii))	0.4	6.7	22.2	5.7	0.4	35.4
Peter Wong Wai-yee (Deputy Managing Director) (note (i))	0.4	6.2	16.6	5.0	–	28.2
John Ho Hon-ming (note (i))	0.4	5.3	6.0	2.3	–	14.0
Colin Lam Ko-yin	0.3	0.1	–	–	–	0.4
Lee Ka-kit (note (i))	0.8	0.1	–	–	–	0.9
Lee Ka-shing	0.7	0.2	–	–	–	0.9
David Li Kwok-po	0.7	0.1	–	–	–	0.8
Poon Chung-kwong	0.7	–	–	–	–	0.7
Moses Cheng Mo-chi	0.7	–	–	–	–	0.7
	5.1	18.7	44.8	13.0	0.4	82.0

Notes

(i) Mr. Alfred Chan Wing-kin, Mr. Peter Wong Wai-yee, Mr. John Ho Hon-ming and Dr. Lee Ka-kit who are also directors of Towngas Smart Energy Company Limited ("Towngas Smart Energy") (formerly known as Towngas China Company Limited), a significant subsidiary of the Group. In this connection, the above emoluments included Mr. Alfred Chan Wing-kin, Mr. Peter Wong Wai-yee, Mr. John Ho Hon-ming and Dr. Lee Ka-kit each received directors' emoluments from Towngas Smart Energy of HK$0.2 million, HK$8.5 million, HK$6.3 million and HK$0.1 million (2020: HK$0.2 million, HK$7.2 million, HK$1.2 million and nil) respectively, and no other share-based payment benefits were received from Towngas Smart Energy during the year and 2020.

(ii) During the year and as at 31st December 2021, 66,409 shares in EcoCeres, Inc., a non-wholly-owned subsidiary of the Company, were beneficially owned by Everwealth Investment A, L.P. (the "Limited Partnership"). Mr. Alfred Chan Wing-kin, as a limited partner, had committed to make capital contribution of approximately USD2.2 million to the Limited Partnership representing more than one-third of the total capital contribution requirements of the Limited Partnership. The related equity-settled share-based payment benefits of HK$0.4 million has been included in "Others" emoluments to Mr. Alfred Chan Wing-kin.

12 Benefits and interests of directors (Continued)

(a) Directors' emoluments (Continued)

Name of director	Fees HK$'M	Salary, allowances and benefits in kind HK$'M	Performance bonus HK$'M	Contributions to retirement scheme HK$'M	Total HK$'M
	Emoluments paid or payable to every director whether of the Company or its subsidiary undertaking				
2020					
Alfred Chan Wing-kin (Managing Director)	0.4	6.7	21.6	5.9	34.6
Peter Wong Wai-yee	0.4	4.8	9.4	2.6	17.2
John Ho Hon-ming (note (iii))	0.1	1.3	1.2	0.6	3.2
Colin Lam Ko-yin	0.3	0.1	–	–	0.4
Lee Ka-kit	0.7	0.2	–	–	0.9
Lee Ka-shing	0.7	0.2	–	–	0.9
David Li Kwok-po	0.7	0.1	–	–	0.8
Poon Chung-kwong	0.7	–	–	–	0.7
Moses Cheng Mo-chi	0.7	–	–	–	0.7
	4.7	13.4	32.2	9.1	59.4

(iii) Mr. John Ho Hon-ming was appointed as director on 1st October 2020. For the period from 1st January to 30th September 2020, in the role of Chief Financial Officer and Company Secretary, Mr. John Ho Hon-ming had a remuneration of HK$8.1 million from the Group, including fees of HK$0.1 million, salary, allowances and benefits in kind of HK$3.2 million, performance bonus of HK$4.0 million and contributions to retirement scheme of HK$0.8 million.

The above remuneration paid to directors of the Company also represents the amounts of short-term employee benefits of HK$68.6 million (2020: HK$50.3 million), post-employment benefits of HK$13.0 million (2020: HK$9.1 million) and share-based payment benefits of HK$0.4 million (2020: Nil) paid to the Group's key management personnel during the year ended 31st December 2021. There were no other long-term benefits and termination benefits paid to the Group's key management personnel during the year (2020: Nil).

(b) Directors' material interests in transactions, arrangements or contracts

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

13 Taxation

The amount of taxation charged to the profit or loss represents:

	2021 HK$'M	2020 HK$'M
Current taxation – provision for Hong Kong Profits Tax at the rate of 16.5% (2020: 16.5%) on the estimated assessable profits for the year	**741.5**	738.6
Current taxation – provision for other jurisdictions income tax at the prevailing rates on the estimated assessable profits for the year (note)	**1,066.9**	979.2
Current taxation – under/(over) provision in prior years	**10.2**	(0.5)
Deferred taxation – origination and reversal of temporary differences	**210.8**	(114.9)
Withholding tax	**125.6**	110.8
	2,155.0	1,713.2

Note

The prevailing income tax rates of the Chinese mainland and Thailand range from 15 per cent to 25 per cent (2020: 15 per cent to 25 per cent) and 50 per cent (2020: 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:

	2021 HK$'M	2020 HK$'M
Profit before taxation	**8,380.7**	8,925.6
Less: Share of results of associates	**(1,885.6)**	(1,187.0)
Share of results of joint ventures	**(646.9)**	(1,089.2)
	5,848.2	6,649.4
Calculated at a tax rate of 16.5% (2020: 16.5%)	**965.0**	1,097.2
Effect of different tax rates in other jurisdictions	**374.6**	238.6
Income not subject to taxation	**(101.6)**	(313.6)
Expenses not deductible for taxation purposes	**629.1**	448.8
Utilisation of previously unrecognised tax losses	**(15.1)**	(37.2)
Under/(over) provision in prior years	**10.2**	(0.5)
Withholding tax	**125.6**	110.8
Unrecognised tax losses and others	**167.2**	169.1
	2,155.0	1,713.2

Share of associates' taxation for the year ended 31st December 2021 of HK$556.1 million (2020: HK$479.0 million) is included in the profit or loss as share of results of associates.

Share of joint ventures' taxation for the year ended 31st December 2021 of HK$448.9 million (2020: HK$409.7 million) is included in the profit or loss as share of results of joint ventures.

14 Dividends

	2021 HK$'M	2020 HK$'M
Interim, paid of HK12 cents per ordinary share (2020: HK12 cents per ordinary share)	**2,239.2**	2,132.6
Final, proposed of HK23 cents per ordinary share (2020: HK23 cents per ordinary share)	**4,291.8**	4,087.4
	6,531.0	6,220.0

At a meeting held on 21st March 2022, the directors of the Company declared a final dividend of HK23 cents per ordinary share for the year ended 31st December 2021. 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 2021.

15 Earnings per share

The calculation of basic earnings per share is based on the profit attributable to shareholders of HK$5,017.0 million (2020: HK$6,007.3 million) and the weighted average of 18,659,870,098 shares (2020: 18,659,870,098 shares[1]) in issue during the year.

The computation of diluted earnings per share for the year ended 31st December 2021 does not assume the conversion of all convertible bonds issued by a subsidiary as their assumed conversion would result in an increase in earnings per share. Accordingly, the diluted earnings per share for the year ended 31st December 2021 is the same as the basic earnings per share.

As there were no diluted potential ordinary shares outstanding during the year, the diluted earnings per share for the year ended 31st December 2020 was the same as the basic earnings per share.

1 Adjusted for the bonus share issue in 2021

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 2021	27,987.9	46,861.3	4,369.2	3,770.0	987.9	12,057.3	96,033.6
Additions	1,411.2	713.1	311.3	23.3	58.9	4,458.6	6,976.4
Acquisition of businesses (note 42(a))	73.3	–	–	–	–	–	73.3
Transfers from capital work in progress	1,375.5	3,604.3	17.7	3.4	–	(5,000.9)	–
Disposals/write off	(214.2)	(35.9)	(115.6)	(3.2)	–	(7.4)	(376.3)
Exchange differences	704.7	1,158.6	5.8	(319.4)	32.0	313.4	1,895.1
At 31st December 2021	31,338.4	52,301.4	4,588.4	3,474.1	1,078.8	11,821.0	104,602.1
Accumulated depreciation and impairment losses							
At 1st January 2021	11,265.2	11,799.6	3,130.6	1,488.9	215.6	–	27,899.9
Charge for the year	1,372.8	1,364.4	292.7	23.3	21.0	–	3,074.2
Impairment	385.9	31.0	–	–	–	889.2	1,306.1
Disposals/write off	(161.3)	(6.2)	(96.2)	(1.0)	–	–	(264.7)
Exchange differences	224.4	233.5	3.2	(103.9)	7.9	–	365.1
At 31st December 2021	13,087.0	13,422.3	3,330.3	1,407.3	244.5	889.2	32,380.6
Net book value							
At 31st December 2021	18,251.4	38,879.1	1,258.1	2,066.8	834.3	10,931.8	72,221.5
At 31st December 2020	16,722.7	35,061.7	1,238.6	2,281.1	772.3	12,057.3	68,133.7

The carrying values of the property, plant and equipment related to city-gas projects in the Chinese mainland as at 31st December 2021 amounted to approximately HK$36.0 billion (2020: HK$31.8 billion) in total. An impairment loss of HK$31.0 million was recognised in the profit or loss for the year ended 31st December 2021 (2020: Nil).

The carrying values of the property, plant and equipment related to a chemical production project in the Chinese mainland as at 31st December 2021 amounted to approximately HK$2.9 billion (2020: HK$3.7 billion) in total. An impairment loss of HK$731.0 million was recognised in the profit or loss for the year ended 31st December 2021 (2020: Nil).

The additions to property, plant and equipment mainly included HK$998.4 million (2020: HK$1,040.0 million) and HK$4,948.0 million (2020: HK$4,967.9 million) in relation to gas, water and related businesses in Hong Kong and the Chinese mainland respectively. Remaining balance mainly included HK$807.5 million (2020: HK$1,297.9 million) in relation to New Energy business segment and HK$222.5 million (2020: HK$88.0 million) in other segments.

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 2020	23,968.1	41,262.5	4,196.7	3,794.6	916.4	11,202.6	85,340.9
Additions	811.2	747.2	262.3	3.0	22.1	5,548.0	7,393.8
Acquisition of business	–	–	–	–	–	0.4	0.4
Transfers from capital work in progress	2,292.7	2,929.4	8.5	–	–	(5,230.6)	–
Disposals/write off	(224.3)	(6.6)	(107.1)	(8.8)	(5.6)	(16.3)	(368.7)
Exchange differences	1,140.2	1,928.8	8.8	(18.8)	55.0	553.2	3,667.2
At 31st December 2020	27,987.9	46,861.3	4,369.2	3,770.0	987.9	12,057.3	96,033.6
Accumulated depreciation and impairment losses							
At 1st January 2020	9,847.1	10,230.3	2,919.6	1,076.2	185.0	–	24,258.2
Charge for the year	1,199.8	1,195.3	288.6	33.2	17.1	–	2,734.0
Impairment	28.4	–	–	385.0	–	–	413.4
Disposals/write off	(176.5)	(4.0)	(83.0)	–	–	–	(263.5)
Exchange differences	366.4	378.0	5.4	(5.5)	13.5	–	757.8
At 31st December 2020	11,265.2	11,799.6	3,130.6	1,488.9	215.6	–	27,899.9
Net book value							
At 31st December 2020	16,722.7	35,061.7	1,238.6	2,281.1	772.3	12,057.3	68,133.7
At 31st December 2019	14,121.0	31,032.2	1,277.1	2,718.4	731.4	11,202.6	61,082.7

17 Investment property

	2021 HK$'M	2020 HK$'M
At 1st January	**827.0**	830.0
Fair value gain/(loss) (note 7)	**22.0**	(3.0)
At 31st December	**849.0**	827.0

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 2021 by an independent professionally qualified valuer, Knight Frank Petty Limited which conform to The HKIS Valuation Standards (2020 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%	8.75%	The higher the capitalisation rate, the lower the fair value
Monthly rent	HK$19.0 /sq.ft.	N/A	The higher the market rent, the higher the fair value

Valuation processes of the Group

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

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

18 Right-of-use assets

	Prepaid leasehold land HK$'M	Buildings, plant and equipment and others HK$'M	Total HK$'M
At 1st January 2021	**2,550.2**	**252.2**	**2,802.4**
Additions	**105.2**	**186.4**	**291.6**
Acquisition of businesses (note 42(a))	**6.5**	**–**	**6.5**
Depreciation and amortisation	**(74.3)**	**(139.2)**	**(213.5)**
Disposals	**(22.6)**	**(4.1)**	**(26.7)**
Exchange differences	**72.5**	**5.9**	**78.4**
At 31st December 2021	**2,637.5**	**301.2**	**2,938.7**

	Prepaid leasehold land HK$'M	Buildings, plant and equipment and others HK$'M	Total HK$'M
At 1st January 2020	2,418.3	306.9	2,725.2
Additions	77.3	64.8	142.1
Depreciation and amortisation	(68.8)	(134.5)	(203.3)
Disposals	(8.9)	–	(8.9)
Exchange differences	132.3	15.0	147.3
At 31st December 2020	2,550.2	252.2	2,802.4

18 Right-of-use assets (Continued)

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

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

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

19 Intangible assets

		2021 HK$'M	2020 HK$'M
(a)	**Goodwill**		
	At 1st January	**5,081.3**	4,913.6
	Acquisition of businesses (note 42(a))	**41.7**	–
	Impairment	**(114.4)**	–
	Exchange differences	**95.0**	167.7
	At 31st December	**5,103.6**	5,081.3
(b)	**Other intangible assets**		
	Cost		
	At 1st January	**522.9**	497.5
	Acquisition of businesses (note 42(a))	**103.1**	–
	Additions	**25.2**	–
	Exchange differences	**14.3**	25.4
	At 31st December	**665.5**	522.9
	Accumulated amortisation		
	At 1st January	**(141.3)**	(120.0)
	Amortisation	**(22.6)**	(17.5)
	Exchange differences	**2.0**	(3.8)
	At 31st December	**(161.9)**	(141.3)
	Net book value		
	At 31st December	**503.6**	381.6
	Total intangible assets	**5,607.2**	5,462.9

19 Intangible assets (Continued)

Goodwill is allocated to an individual cash-generating unit and a group of 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 the Chinese mainland. The goodwill balance included HK$2,242.0 million (2020: HK$2,242.0 million) related to the Group's investments in Towngas Smart Energy. The remaining balance mainly represents goodwill associated with individual city-gas projects (approximately HK$2.7 billion as of 31st December 2021) (2020: HK$2.8 billion). 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 key assumptions used in the value-in-use calculations are detailed in note 4(a). Management assesses the fair value less costs of disposal in relation to the investments in certain subsidiaries by referencing to their market values (if applicable) as at the end of the reporting period.

Based on impairment tests performed, impairment provision on goodwill of HK$114.4 million was recognised as at 31st December 2021 (2020: Nil).

20 Subsidiaries

Material non-controlling interests

The total non-controlling interest as at 31st December 2021 is HK$12,028.2 million (2020: HK$10,010.8 million) of which HK$8,855.4 million (2020: HK$7,163.3 million) is attributable to Towngas Smart Energy and the non-controlling interest in respect of other individual subsidiaries of the Group is not material.

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

Summarised statement of financial position	2021 HK$'M	2020 HK$'M
Assets		
Non-current assets	**42,848.7**	33,087.0
Current assets	**7,535.9**	6,037.8
	50,384.6	39,124.8
Liabilities		
Non-current liabilities	**(12,681.3)**	(8,197.6)
Current liabilities	**(16,257.6)**	(11,979.9)
	(28,938.9)	(20,177.5)
Net assets	**21,445.7**	18,947.3

20 Subsidiaries (Continued)

Summarised income statement and comprehensive income statement	2021 HK$'M	2020 HK$'M
Revenue	**17,125.4**	12,826.2
Profit before taxation	**2,144.8**	2,202.7
Taxation	**(617.7)**	(554.9)
Profit for the year	**1,527.1**	1,647.8
Other comprehensive income	**640.1**	827.1
Total comprehensive income	**2,167.2**	2,474.9
Total comprehensive income attributable to non-controlling interests	**898.2**	985.6
Dividend paid to non-controlling shareholders	**275.3**	247.5

Summarised cash flows statement	2021 HK$'M	2020 HK$'M
Net cash from operating activities	**2,253.0**	2,199.9
Net cash used in investing activities	**(7,858.1)**	(2,476.2)
Net cash from financing activities	**7,374.2**	463.4
Net increase in cash and cash equivalents	**1,769.1**	187.1
Cash and cash equivalents at beginning of year	**2,226.0**	1,937.4
Effect of foreign exchange rate changes	**76.1**	101.5
Cash and cash equivalents at end of year	**4,071.2**	2,226.0

21 Associates

	2021 HK$'M	2020 HK$'M
Investments in associates, including goodwill	**35,407.2**	27,735.3
Loans to associates – non-current	**742.7**	935.0
	36,149.9	28,670.3
Loan and other receivables from associates – current	**418.8**	401.7
Fair value of listed investments	**13,352.2**	13,952.4

The Group's share of property, plant and equipment, together with goodwill related to individual city-gas projects accounted for as associates of the Group as at 31st December 2021 were carried at approximately HK$18.9 billion (2020: HK$12.0 billion).

As at 31st December 2021, the Group's investments in associates, including goodwill in relation to the Chinese mainland's gas, water and related business, New Energy, Property and other segments amounted to HK$20,268.0 million, HK$263.5 million, HK$14,842.9 million and HK$32.8 million respectively (2020: HK$12,743.7 million, HK$162.2 million, HK$14,798.5 million and HK$30.9 million respectively).

Loan and other receivables from associates are analysed below:

(i) Loans to associates in the Chinese mainland of HK$1,062.8 million (2020: HK$1,254.3 million) with effective interest rates ranging from 3.00 per cent to 7.20 per cent per annum (2020: 4.35 per cent to 7.20 per cent per annum) are unsecured and fully repayable in 2022 to 2023 (2020: 2021 to 2022).

(ii) The remaining balances are unsecured, interest free and have no fixed terms of repayment.

(iii) Loan and other receivables from associates are considered to have low credit risk and the loss allowance recognised during the year was therefore limited to 12-month expected credit loss.

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

	2021 HK$'M	2020 HK$'M
USD	**567.0**	613.7
RMB	**593.0**	722.9
HKD	**1.5**	0.1
	1,161.5	1,336.7

21 Associates (Continued)

Particulars of the principal associates as at 31st December 2021 are listed below:

Name	Note	Issued share capital/ registered capital	Percentage of the Group's equity interest	Place of incorporation/ operation	Principal activity
China-Singapore Suzhou Industrial Park Broad Energy Services Co., Ltd.		RMB71.1 million	25	PRC	Cooling and heating system business
Hainan Petrochina Kunlun Hong Kong & China Gas Co., Ltd.		RMB50.4 million	49	PRC	Gas sales and related businesses
^ Shenzhen Gas Corporation Ltd.		RMB2,876.8 million	26.5	PRC	Gas sales and related businesses
港華儲氣有限公司		RMB200.0 million	39	PRC	Gas storage project
Central Waterfront Property Investment Holdings Limited	(i)	US$100	15.8	British Virgin Islands	Investment holding
GH-Fusion Limited	(ii)	US$200	50	British Virgin Islands	Investment holding
蘇州工業園區蘇相合作區市政公用發展有限公司		RMB50.0 million	49	PRC	Investment holding
河北金建佳天然氣有限公司		RMB90.0 million	20	PRC	LNG receiving terminal; pier
江蘇海企港華燃氣股份有限公司		RMB204.0 million	35	PRC	LNG refilling station for vessels
Hangzhou Natural Gas Company Limited		RMB1,195.0 million	32	PRC	Mid-stream natural gas and piped city-gas project
^ Anhui Province Natural Gas Development Co., Ltd.		RMB336.0 million	20.6	PRC	Mid-stream natural gas project
Hebei Natural Gas Company Limited		RMB1,900.0 million	43	PRC	Mid-stream natural gas project
河南省中原石油天然氣管網有限公司		RMB60.0 million	49	PRC	Mid-stream natural gas project
泰州城投天然氣有限公司（Formerly known as 泰州城投天然氣管網有限公司）		RMB150.0 million	47.6	PRC	Natural gas pipeline project
S&T International Natural Gas Trading Company Limited		HK$10.0 million	40	Hong Kong	Natural gas trading

^ A listed company on the Shanghai Stock Exchange

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 2021 are listed below: (Continued)

	Name	Note	Issued share capital/ registered capital	Percentage of the Group's equity interest	Place of incorporation/ operation	Principal activity
	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
	道勝環境產業有限公司		RMB1,000.0 million	49	PRC	Waste treatment project
#	佛山水務環保股份有限公司		RMB831.8 million	26.7	PRC	Water project
	China-Singapore Suzhou Industrial Park Environmental Technology Co., Ltd.		RMB185.0 million	49	PRC	Water treatment project
1	Dalian Deta Towngas China Energy Co., Ltd.		RMB101.0 million	49	PRC	Zero-carbon smart industrial park project
	Held by Towngas Smart Energy and the respective equity interest held by Towngas Smart Energy is shown accordingly.					
	四川能投分布式能源有限公司		*RMB512.6 million*	*24.4*	*PRC*	*Distributed energy systems businesses*
	Zhuojia Public Engineering (Maanshan) Co., Ltd.		*RMB12.0 million*	*37.5*	*PRC*	*Gas pipe assembly*
^	*Changchun Gas Co., Ltd.*		*RMB609.0 million*	*28.2*	*PRC*	*Gas sales and related businesses*
	Dalian DETA Hong Kong and China Gas Co., Ltd.		*RMB137.2 million*	*40*	*PRC*	*Gas sales and related businesses*
Ω	*Foran Energy Group Co., Ltd.*		*RMB945.2 million*	*38.7*	*PRC*	*Gas sales and related businesses*
	Shandong Jihua Gas Co., Ltd.		*RMB700.0 million*	*49*	*PRC*	*Gas sales and related businesses*
1	*Shanghai Gas Co., Ltd.*	*(i)*	*RMB1,333.3 million*	*25*	*PRC*	*Gas sales and related businesses*
	Zibo Lubo Gas Company Limited		*RMB100.0 million*	*27*	*PRC*	*Gas sales and related businesses*
	撫州市撫北天然氣有限公司		*RMB16.0 million*	*40*	*PRC*	*Gas sales and related businesses*
	臨朐港華燃氣有限公司		*US$10.6 million*	*42.4*	*PRC*	*Gas sales and related businesses*
	石家莊華博燃氣有限公司		*RMB45.0 million*	*45*	*PRC*	*Gas sales and related businesses*
	Anhui Province Wenery Towngas Natural Gas Company Limited		*RMB240.0 million*	*49*	*PRC*	*Mid-stream natural gas project*

\# Direct associate of the Company
1 Newly formed/acquired during the year
^ A listed company on the Shanghai Stock Exchange
Ω A listed company on the Shenzhen Stock Exchange

Note

(i) Pursuant to a supplemental agreement entered between Shenergy (Group) Company Limited ("Shenergy Group"), the controlling shareholder of Shanghai Gas, and the Group, the financial results of Shanghai Gas for the period from the date of acquisition of Shanghai Gas by the Group to 31st December 2021 were borne by Shenergy Group.

21 Associates (Continued)

The following amounts represent the Group's share of income and results of the associates and are included in the consolidated income statement and statement of comprehensive income:

	2021 HK$'M	2020 HK$'M
Income	**27,630.1**	17,903.1
Expenses, including taxation	**(25,744.5)**	(16,716.1)
Profit after taxation	**1,885.6**	1,187.0
Other comprehensive loss	**(3.5)**	(15.6)
Total comprehensive income	**1,882.1**	1,171.4

Set out below are the summarised financial information of CWPI which is considered to be the only associate individually material to the Group and it is accounted for using the equity method. CWPI holds IFC complex as the commercial investment property for rental income in Hong Kong.

	CWPI	
Summarised statement of financial position	**2021 HK$'M**	2020 HK$'M
Assets		
Non-current assets	**113,764.1**	113,531.1
Current assets	**501.2**	605.2
	114,265.3	114,136.3
Liabilities		
Non-current liabilities	**(18,491.7)**	(17,986.9)
Current liabilities	**(1,767.5)**	(2,434.4)
	(20,259.2)	(20,421.3)
Net assets	**94,006.1**	93,715.0

21 Associates (Continued)

Summarised income statement and statement of comprehensive income	CWPI 2021 HK$'M	CWPI 2020 HK$'M
Income	**5,012.4**	1,997.4
Expenses, including taxation	**(2,279.3)**	(2,244.3)
Profit/(loss) after taxation	**2,733.1**	(246.9)
Other comprehensive (loss)/income	**(22.0)**	25.9
Total comprehensive income/(loss)	**2,711.1**	(221.0)
Share of total comprehensive income/(loss) (15.79%)	**428.1**	(34.9)
Dividend received from the associate	**382.1**	418.4

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 2021 HK$'M	CWPI 2020 HK$'M
Net assets		
At 1st January	**93,715.0**	96,586.0
Profit/(loss) for the year	**2,733.1**	(246.9)
Other comprehensive (loss)/income	**(22.0)**	25.9
Dividend paid	**(2,420.0)**	(2,650.0)
At 31st December	**94,006.1**	93,715.0

	2021 HK$'M	2020 HK$'M
Carrying value		
Interest in an associate (15.79%)	**14,843.6**	14,797.6

22 Joint ventures

	2021 HK$'M	2020 HK$'M
Investments in joint ventures, including goodwill	**12,575.2**	11,981.2
Loan and other receivables from joint ventures – current	**535.9**	442.9
Amounts due to joint ventures – current	**(189.5)**	(486.3)

The Group's share of property, plant and equipment, together with goodwill related to individual city-gas projects accounted for as joint ventures of the Group as at 31st December 2021 were carried at approximately HK$17.5 billion (2020: HK$17.0 billion).

As at 31st December 2021, the Group's investments in joint ventures, including goodwill in relation to the Chinese mainland's gas, water and related business, New Energy and Property segments amounted to HK$12,561.7 million, HK$10.2 million and HK$3.3 million respectively (2020: HK$11,969.3 million, HK$9.2 million and HK$2.7 million respectively).

Loan and other receivables from joint ventures are analysed below:

(i) Loans to joint ventures in the Chinese mainland of HK$208.5 million (2020: HK$209.7 million) with effective interest rates of 4.35 per cent per annum (2020: 4.35 per cent per annum) are unsecured and fully repayable in 2022 (2020: 2021).

(ii) Loan to a joint venture in Hong Kong of HK$84.9 million (2020: HK$88.2 million) is unsecured, interest free and has no fixed terms of repayment.

(iii) The remaining balances are unsecured, interest free and have no fixed terms of repayment.

(iv) Loan and other receivables from joint ventures are considered to have low credit risk and the loss allowance recognised during the year was therefore limited to 12-month expected credit loss.

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

	2021 HK$'M	2020 HK$'M
RMB	**451.0**	354.7
HKD	**84.9**	88.2
	535.9	442.9

Amounts due to joint ventures are analysed below:

(i) As at 31st December 2020, there was a loan from a joint venture of HK$242.7 million with effective interest rate of 4.44 per cent per annum and was unsecured. The loan was fully repaid during 2021.

(ii) Loans from joint ventures of HK$189.5 million (2020: HK$243.6 million) with effective interest rate of 2.15 per cent per annum (2020: 2.15 per cent per annum) are unsecured and have no fixed terms of repayment.

(iii) The remaining balances are unsecured, interest free and have no fixed terms of repayment.

(iv) Loan and other payables to joint ventures are denominated in RMB (2020: denominated in RMB).

22 Joint ventures (Continued)

Particulars of the principal joint ventures as at 31st December 2021 are listed below:

Name	Note	Issued share capital/ registered capital	Percentage of the Group's equity interest	Place of incorporation/ operation	Principal activity
Hua Yan Environmental Industry Development (Suzhou) Co., Ltd.	(i)	RMB75.0 million	55	PRC	Food and green waste treatment project
# Beijing Beiran & HKCG Gas Company Limited		RMB44.4 million	49	PRC	Gas sales and related businesses
Changzhou Hong Kong and China Gas Company Limited		RMB300.0 million	50	PRC	Gas sales and related businesses
Jinan Hong Kong and China Gas Company Limited		RMB700.0 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 Co., Ltd.	(i)	RMB100.0 million	70	PRC	Gas sales and related businesses
Wuhan Natural Gas Co., Ltd.		RMB420.0 million	49	PRC	Gas sales and related businesses
# Xian Qinhua Gas Group 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
Ying Tong TGT Network Services (Shenzhen) Co. Ltd.		RMB100.0 million	49	PRC	Telecommunications business
Suzhou Industrial Park Qingyuan Hong Kong & China Water Co., Ltd.		RMB1,200.0 million	50	PRC	Water supply and sewage treatment

Direct joint ventures of the Company

Note

(i) The Group can only exercise joint control over the board of directors in the joint ventures.

22 Joint ventures (Continued)

Particulars of the principal joint ventures as at 31st December 2021 are listed below: (Continued)

Name	Issued share capital/ registered capital	Percentage of the Group's equity interest	Place of incorporation/ operation	Principal activity
Held by Towngas Smart Energy and the respective equity interest held by Towngas Smart Energy is shown accordingly.				
Anhui Towngas Keda Power Sales Co., Ltd.	*RMB200.0 million*	*50*	*PRC*	*Distributed energy systems businesses*
Tongling Towngas China Energy Co., Ltd.	*RMB24.5 million*	*40*	*PRC*	*Distributed energy systems businesses*
Anqing Hong Kong and China Gas Company Limited	*RMB73.0 million*	*50*	*PRC*	*Gas sales and related businesses*
Hangzhou Hong Kong and China Gas Company Limited	*US$20.0 million*	*50*	*PRC*	*Gas sales and related businesses*
Maanshan Hong Kong and China Gas Company Limited	*US$13.0 million*	*50*	*PRC*	*Gas sales and related businesses*
Taian Taishan Hong Kong and China Gas Company Limited	*RMB150.0 million*	*49*	*PRC*	*Gas sales and related businesses*
Weifang Hong Kong and China Gas Company Limited	*RMB400.0 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	*RMB100.0 million*	*50*	*PRC*	*Gas sales and related businesses*
重慶港華燃氣有限公司	*RMB20.0 million*	*50*	*PRC*	*Gas sales and related businesses*
泰安市泰港燃氣有限公司	*RMB139.2 million*	*49*	*PRC*	*Mid-stream natural gas project*

The following amounts represent the Group's share of income and results of the joint ventures and are included in the consolidated income statement and statement of comprehensive income:

	2021 HK$'M	2020 HK$'M
Income	**18,603.0**	14,493.5
Expenses, including taxation	**(17,956.1)**	(13,404.3)
Profit after taxation and total comprehensive income	**646.9**	1,089.2

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

23 Financial assets at fair value through other comprehensive income

	2021 HK$'M	2020 HK$'M
Debt securities (note (a))	**139.2**	158.7
Equity securities (note (b))	**2,031.3**	2,334.1
	2,170.5	2,492.8

Notes

		2021 HK$'M	2020 HK$'M
(a)	Debt securities		
	Listed – Hong Kong	**15.7**	15.7
	Listed – outside Hong Kong	**123.5**	143.0
		139.2	158.7

		2021 HK$'M	2020 HK$'M
(b)	Equity securities		
	Listed – Hong Kong	**163.7**	247.9
	Listed – outside Hong Kong	**1,435.3**	1,682.8
	Unlisted	**432.3**	403.4
		2,031.3	2,334.1

Included in the equity securities, it comprises HK$128.5 million (2020: HK$200.1 million) of perpetual bonds and HK$1,902.8 million (2020: HK$2,134.0 million) of investments that are mainly engaged in the provision of natural gas and related services and gas pipeline construction services. These are strategic investments and the Group considers the classification of FVOCI to be more relevant.

Financial assets at FVOCI are denominated in the following currencies:

	2021 HK$'M	2020 HK$'M
RMB	**1,810.7**	1,982.0
HKD	**92.0**	120.6
USD	**267.8**	390.2
	2,170.5	2,492.8

24 Financial assets at fair value through profit or loss

	2021 HK$'M	2020 HK$'M
Debt securities – non-current (note (a))	284.2	–
Equity securities (note (b))		
– Current	–	205.4
– Non-current	4,763.4	4,687.3
	5,047.6	4,892.7

Notes

		2021 HK$'M	2020 HK$'M
(a)	Debt securities		
	Listed – outside Hong Kong	284.2	–

		2021 HK$'M	2020 HK$'M
(b)	Equity securities		
	Listed – Hong Kong	–	110.0
	Listed – outside Hong Kong	1,498.0	1,632.0
	Unlisted	3,265.4	3,150.7
		4,763.4	4,892.7

Included in the unlisted equity securities, it comprises HK$3,195.3 million (2020: HK$3,093.4 million) of investments in certain equity interest of a company which owned a coking coal mine and related coke production and coke-gas conversion facility in the Chinese mainland.

Financial assets at FVPL are denominated in the following currencies:

	2021 HK$'M	2020 HK$'M
HKD	–	110.0
USD	70.1	95.4
RMB	4,977.5	4,687.3
	5,047.6	4,892.7

25 Derivative financial instruments

	2021		2020	
	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	55.9	(9.6)	35.0	(477.3)
Foreign currency forward contracts – held-for-trading	5.2	–	0.9	(1.3)
Cross currency swap contracts – held-for-trading	7.9	–	8.7	–
Interest rate swap contracts – held-for-trading	–	(70.7)	6.0	–
Put option – held-for-trading (note 3)	262.8	–	254.4	–
Convertible bonds – embedded derivative component (note 32(b))	–	(776.6)	–	–
	331.8	(856.9)	305.0	(478.6)
Current				
Cross currency swap and interest rate swap contracts – cash flow hedges	–	(511.0)	28.5	(140.1)
Foreign currency forward contracts – held-for-trading	2.1	–	–	(0.1)
	2.1	(511.0)	28.5	(140.2)

The fair value of hedging derivatives is classified as current assets or liabilities when the remaining maturity of the hedged item is less than 12 months.

The full fair values of hedging derivatives are classified as non-current assets or liabilities when the remaining maturity of the hedged items is more than 12 months.

Hedge ineffectiveness

Hedge effectiveness is determined at the inception of the hedge relationship, and through periodic prospective effectiveness assessments to ensure that an economic relationship exists between the hedged item and hedging instrument.

The ineffective portion recognised in the profit or loss that arises from cash flow hedges amounts to a gain of HK$4.9 million (2020: HK$6.9 million).

The major terms of the outstanding derivative contracts held for hedging as at 31st December 2021 are as follows:

Notional amount	Maturity	Forward contract rate
Cross currency swap and interest rate swap contracts – cash flow hedges		
RMB1,376 million	2022 – 2024	HKD1 to RMB0.8351 – RMB0.86
USD50 million	2024	USD1 to RMB6.927
AUD111 million	2022 – 2025	AUD1 to HKD5.42 – HKD8.21
JPY12 billion	2022 – 2027	JPY100 to HKD6.877 – HKD9.897

Gains and losses recognised in the hedging reserve in equity (note 36) on the swaps as of 31st December 2021 will be continuously released to the profit or loss until the repayment of relevant borrowings.

26 Retirement benefit assets

	2021 HK$'M	2020 HK$'M
At 31st December	**184.0**	111.9

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:

	2021 HK$'M	2020 HK$'M
Fair value of plan assets	**744.9**	730.1
Present value of funded obligations	**(560.9)**	(618.2)
Net assets in the consolidated statement of financial position	**184.0**	111.9

The plan assets did not include any shares of the Company as at 31st December 2021 (2020: Nil).

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

	2021 HK$'M	2020 HK$'M
Current service cost	**15.8**	15.1
Net interest income	**(1.1)**	(1.3)
Administrative expenses	**–**	0.1
Total (note 11)	**14.7**	13.9

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

	2021 HK$'M	2020 HK$'M
Actuarial gain due to liability experience	**(22.7)**	(6.3)
Actuarial (gain)/loss due to financial assumption changes	**(31.2)**	51.2
Actuarial gain due to demographic assumption changes	**(0.1)**	(0.1)
Actuarial (gains)/losses	**(54.0)**	44.8
Return on plan assets, excluding amounts included in interest income	**(28.8)**	(100.0)
Total	**(82.8)**	(55.2)

26 Retirement benefit assets (Continued)

The movements in the defined benefit obligations are as follows:

	2021 HK$'M	2020 HK$'M
At 1st January	**618.2**	566.3
Current service cost	**15.8**	15.1
Interest cost	**5.5**	9.9
Benefits paid	**(24.6)**	(17.9)
Actuarial (gains)/losses	**(54.0)**	44.8
At 31st December	**560.9**	618.2

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

	2021 HK$'M	2020 HK$'M
At 1st January	**730.1**	632.6
Return on plan assets, excluding amounts included in interest income	**28.8**	100.0
Interest income recognised in consolidated income statement	**6.6**	11.2
Contribution paid by employer	**4.0**	4.3
Benefits paid	**(24.6)**	(17.9)
Administrative expenses	**–**	(0.1)
At 31st December	**744.9**	730.1

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

	2021 HK$'M	2020 HK$'M
At 1st January	**111.9**	66.3
Remeasurement effects recognised in other comprehensive income	**82.8**	55.2
Total cost of defined benefit retirement scheme (note 11)	**(14.7)**	(13.9)
Contribution paid by employer	**4.0**	4.3
At 31st December	**184.0**	111.9

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

	2021 %	2020 %
Equity securities	**85.3**	78.1
Debt securities	**12.1**	15.7
Cash	**2.6**	6.2

26 Retirement benefit assets (Continued)

The principal actuarial assumptions used are as follows:

	2021 %	2020 %
Discount rate	**1.5**	0.9
Expected rate of future salary increases	**4.0**	4.0

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

	Impact on defined benefit obligations		
	Change in assumption	Increase in assumption	Decrease in assumption
Discount rate	**0.25%**	**Decrease by 2.2%**	**Increase by 2.3%**
Salary increase rate	**0.25%**	**Increase by 2.2%**	**Decrease by 2.2%**
Maximum salary scale increase rate	**0.25%**	**Increase by 0.0%**	**Decrease by 0.1%**

The above sensitivity analyses are based on a change in an assumption while holding all other assumptions constant. In practice, this is unlikely to occur, and changes in some of the assumptions may be correlated. When calculating the sensitivity of the defined benefit obligations 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 consolidated 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 2022 are HK$3.7 million.

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 asset/liability, 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 is calculated using a discount rate based on market bond yields. A decrease in the bond yields will increase the defined benefit obligation.
Salary risk	The defined benefit obligation 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 defined benefit obligation.

26 Retirement benefit assets (Continued)

The weighted average duration of the benefit obligation is 9.2 years. Expected maturity analysis of benefit undiscounted payments:

	Within 5 years HK$'M	Beyond 5 years but within 10 years HK$'M	Beyond 10 years HK$'M
As 31st December 2021			
Expected benefit payments	**163.2**	**188.4**	**438.3**

27 Other non-current assets

	2021 HK$'M	2020 HK$'M
Aviation fuel facility construction receivable (note (a))	**3,583.7**	3,279.9
Other receivables and prepayments (note (b))	**2,220.4**	953.4
Deposit paid for acquisition of an associate (note 39(c))	**–**	415.8
	5,804.1	4,649.1

Notes

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

(b) The balance includes prepayments of HK$1,474.0 million (2020: Nil) for the right to use two storage tanks at the liquefied natural gas receiving terminal in Tangshan city for a contract term of 50 years, and the remaining balance mainly represents prepayments for inventory and capital expenditures to suppliers.

28 Inventories

	2021 HK$'M	2020 HK$'M
Stores and materials	**2,425.9**	1,984.5
Work in progress	**714.8**	686.5
	3,140.7	2,671.0

The Group wrote down the carrying value of inventories by HK$43.6 million (2020: HK$20.2 million) to its net realisable value during the year ended 31st December 2021.

29 Trade and other receivables

	2021 HK$'M	2020 HK$'M
Trade receivables (note (a))	**4,211.8**	3,827.9
Payments in advance (note (b))	**1,783.4**	2,158.6
Other receivables	**3,153.7**	2,586.0
	9,148.9	8,572.5

Trade and other receivables are denominated in the following currencies:

	2021 HK$'M	2020 HK$'M
RMB	**6,299.1**	5,709.3
HKD	**2,734.3**	2,749.6
USD	**94.0**	106.6
Others	**21.5**	7.0
	9,148.9	8,572.5

Notes

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

	2021 HK$'M	2020 HK$'M
0 – 30 days	**3,726.0**	3,360.6
31 – 60 days	**101.5**	125.2
61 – 90 days	**101.2**	50.9
Over 90 days	**283.1**	291.2
	4,211.8	3,827.9

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

The loss allowance decreased from HK$300.9 million to HK$246.2 million during the year.

(b) Balance mainly represents prepayment for purchase of materials and services in relation to the Group's gas, water and New Energy businesses in Hong Kong and the Chinese mainland. As at 31st December 2021, the directors of the Company reviewed the composition of the balance and considered the amount is recoverable.

30 Time deposits, cash and bank balances

	2021 HK$'M	2020 HK$'M
Time deposits over three months	**77.9**	173.3
Time deposits up to three months	**1,181.6**	1,679.6
Cash and bank balances	**9,375.4**	5,775.4
	10,557.0	7,455.0

The average effective interest rates on time deposits in Hong Kong and the Chinese mainland are 0.73 per cent and 2.08 per cent per annum respectively (2020: 1.75 per cent and 2.18 per cent per annum). These deposits have average maturity dates within 72 days (2020: 54 days).

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

	2021 HK$'M	2020 HK$'M
RMB	**8,464.2**	6,162.1
USD	**1,076.0**	219.5
HKD	**1,064.2**	1,233.6
THB	**19.6**	9.7
Others	**10.9**	3.4
	10,634.9	7,628.3

The conversion of Renminbi denominated balances into foreign currencies and the remittance of foreign currencies denominated bank balances and cash out of the Chinese mainland are subject to relevant rules and regulations of foreign exchange control promulgated by the PRC government.

31 Trade payables and other liabilities

	2021 HK$'M	2020 HK$'M
Trade payables (note (a))	**4,120.9**	3,586.4
Other payables and accruals (note (b))	**5,368.9**	4,808.6
Contract liabilities (note (c))	**8,894.8**	8,531.3
Lease liabilities (note (d))	**103.0**	104.8
	18,487.6	17,031.1

31 Trade payables and other liabilities (Continued)

Notes

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

	2021 HK$'M	2020 HK$'M
0 – 30 days	**1,790.5**	1,587.5
31 – 60 days	**583.2**	464.3
61 – 90 days	**617.6**	327.2
Over 90 days	**1,129.6**	1,207.4
	4,120.9	3,586.4

(b) The balances mainly represent accrual for services or goods received from suppliers.

(c) The balances mainly represent non-refundable advance received from customers for utility connection services, provision of gas and provision of maintenance services.

The following table shows the amount of the revenue recognised in the current reporting period relates to contract liabilities balance at the beginning of the year:

	2021 HK$'M	2020 HK$'M
Revenue recognised that was included in the contract liabilities balance at the beginning of the year	**4,075.4**	3,463.9

(d) As at 31st December 2021, the weighted average incremental borrowing rate applied to the lease liabilities were 3.0 per cent (2020: 3.0 per cent) for leases in Hong Kong and 5.0 per cent (2020: 5.0 per cent) for leases in the Chinese mainland.

(e) As at 31st December 2021, the amount of unsatisfied performance obligations expected to be recognised within one year and after one year are HK$3,462.8 million (2020: HK$4,471.9 million) and HK$5,740.6 million (2020: HK$5,300.9 million) respectively.

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

	2021 HK$'M	2020 HK$'M
RMB	**15,686.1**	14,538.0
HKD	**2,535.2**	2,159.8
USD	**251.9**	313.7
Others	**14.4**	19.6
	18,487.6	17,031.1

32 Borrowings

	2021 HK$'M	2020 HK$'M
Non-current		
Bank and other loans	**16,232.8**	12,164.8
Guaranteed notes (note (a))	**18,666.5**	19,121.5
Convertible bonds (note (b))	**1,956.6**	–
	36,855.9	31,286.3
Current		
Bank and other loans	**15,623.0**	9,809.2
Guaranteed notes (note (a))	**2,632.2**	1,043.1
	18,255.2	10,852.3
Total borrowings	**55,111.1**	42,138.6

Notes

(a) Guaranteed notes comprise:

The principal amounts of HK$17,980.5 million, RMB1,635.0 million, AUD111.0 million and JPY12,000.0 million (2020: HK$17,330.5 million, RMB935.0 million, AUD161.0 million and JPY12,000.0 million) which in aggregate is equivalent to HK$21,428.6 million (2020: HK$20,302.3 million) guaranteed notes were issued by HKCG (Finance) Limited or TCCL (Finance) Limited, subsidiaries of the Group, between 2nd June 2009 and 12th November 2021. The notes are unsecured and guaranteed by the Company or Towngas Smart Energy as to repayment, carry fixed coupon rates ranging from 0.35 per cent to 5.85 per cent per annum payable quarterly, half-yearly or annually in arrear and have maturity terms between 3 to 40 years.

(b) Convertible bonds

In November 2021, Towngas Smart Energy, a listed subsidiary of the Company, issued and allotted new shares and convertible bonds due 2026 of principal amount of RMB1,835.6 million (equivalent to HK$2,217.7 million at an agreed exchange rate) to an investor. Details of the transactions were disclosed in Towngas Smart Energy's announcements dated 25th October 2021 and 18th November 2021.

Total gross proceeds received by Towngas Smart Energy amounted to HK$2,801.6 million. The subscription of shares and issue of convertible bonds are considered to be a single transaction. On initial recognition, the convertible bonds are measured at fair value at HK$2,349.7 million and the remaining balance of HK$451.9 million is recorded as share capital and share premium of Towngas Smart Energy.

There was no movement in the number of the convertible bonds during the year ended 31st December 2021.

32 Borrowings (Continued)

Notes (Continued)

(b) Convertible bonds (Continued)

The convertible bonds entitle the investor to convert them into ordinary shares of Towngas Smart Energy in whole or in part at any time during the conversion period at a conversion price of HK$6.33 per convertible bond, subject to adjustments. The conversion period commences from the date of issue and will expire on the close of business on the earlier of (i) the date which is 5 business days prior to the maturity date, i.e. 18th November 2026, or (ii) if the convertible bonds shall have been called for redemption prior to the maturity date, the date which is 5 business days prior to the date fixed for redemption. The convertible bonds carry interest at a rate of 1% per annum, which is payable annually in arrears.

The convertible bonds comprise two components:

(i) The debt component was initially measured at fair value amounting to RMB1,590.5 million (equivalent to HK$1,940.3 million). It is subsequently measured at amortised cost using the effective interest method after considering the effect of the transaction costs. The effective interest rate of the debt component is 4% per annum.

(ii) The embedded derivative component comprises conversion options, which were initially measured at fair value with an amount of RMB335.6 million (equivalent to HK$409.4 million).

	Debt component HK$'M	Embedded derivative component HK$'M	Total HK$'M
Fair value of convertible bonds at issuance	**1,940.3**	409.4	2,349.7
Exchange differences	**11.1**	8.6	19.7
Direct transaction costs attributable to debt component	**(1.5)**	–	(1.5)
Interest expense	**9.3**	–	9.3
Interest paid	**(2.6)**	–	(2.6)
Change in fair value	**–**	358.6	358.6
As at 31st December 2021	**1,956.6**	776.6	2,733.2

(c) The maturity of borrowings is as follows:

	Bank and other loans		Guaranteed notes and convertible bonds	
	2021 HK$'M	2020 HK$'M	**2021 HK$'M**	2020 HK$'M
Within 1 year	**15,623.0**	9,809.2	**2,632.2**	1,043.1
Between 1 and 2 years	**5,209.7**	5,909.8	**1,757.6**	2,720.5
Between 2 and 5 years	**10,540.8**	5,847.3	**7,666.1**	3,333.5
Wholly repayable within 5 years	**31,373.5**	21,566.3	**12,055.9**	7,097.1
Wholly repayable over 5 years	**482.3**	407.7	**11,199.4**	13,067.5

32 Borrowings (Continued)

Notes (Continued)

(c) As at 31st December 2021, the Group's borrowings amounted to HK$55,111.1 million (2020: HK$42,138.6 million). While the guaranteed notes, convertible bonds together with the bank and other loans of HK$9,522.1 million (2020: HK$8,138.7 million) had fixed interest rate and were unsecured, the remaining bank and other loans were unsecured and had a floating interest rate, of which HK$10,221.4 million (2020: HK$6,935.4 million) were long-term bank loans and HK$12,112.3 million (2020: HK$6,899.9 million) had maturities within one year on revolving credit or term loan facilities. Guaranteed notes of HK$2,527.8 million (2020: HK$2,971.5 million) were hedged.

The exposure of the Group's borrowings to interest rate changes and the contractual repricing dates are mainly within 6 months from the date of statement of financial position, except for guaranteed notes, convertible bonds and some bank loans as they are subjected to fixed interest rate and with maturity term ranged from 1 to 40 years. The effective interest rates of the Group's borrowings at the date of statement of financial position are as follows:

	2021					2020				
	HKD	**USD**	**RMB**	**AUD**	**JPY**	HKD	USD	RMB	AUD	JPY
Bank and other loans	**1.0%**	**4.0%**	**4.0%**	**N/A**	**1.2%**	1.1%	4.3%	3.9%	N/A	1.2%
Guaranteed notes	**2.9%**	**N/A**	**2.1%**	**3.0%**	**3.3%**	3.0%	N/A	0.9%	3.1%	3.3%
Convertible bonds	**N/A**	**N/A**	**4.0%**	**N/A**	**N/A**	N/A	N/A	N/A	N/A	N/A

(d) The carrying values of borrowings approximate their fair values as the balances impact of discounting is not significant.

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

	2021 **HK$'M**	2020 HK$'M
HKD	**28,300.0**	23,128.6
RMB	**24,957.2**	15,960.5
USD	**401.2**	1,175.0
AUD	**628.3**	959.6
JPY	**824.4**	914.9
	55,111.1	42,138.6

33 Deferred taxation

The movements in the deferred taxation are as follows:

	2021 HK$'M	2020 HK$'M
At 1st January	**7,059.1**	7,180.5
Charged/(credited) to the profit or loss	**336.4**	(4.1)
Credited to other comprehensive income	**(72.1)**	(195.8)
Withholding tax	**(84.8)**	(51.2)
Exchange differences	**(13.2)**	129.7
At 31st December	**7,225.4**	7,059.1

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

	Accelerated tax depreciation		Mining and oil properties		Financial instruments		Others		Total	
Deferred tax liabilities	**2021 HK$'M**	2020 HK$'M	**2021 HK$'M**	2020 HK$'M	**2021 HK$'M**	2020 HK$'M	**2021 HK$'M**	2020 HK$'M	**2021 HK$'M**	2020 HK$'M
At 1st January	**3,924.6**	3,608.0	**1,490.7**	1,718.3	**713.2**	1,034.0	**949.7**	839.3	**7,078.2**	7,199.6
Charged/(credited) to profit or loss	**256.7**	247.4	**(6.1)**	(210.3)	**(38.1)**	(150.4)	**123.9**	109.2	**336.4**	(4.1)
Credited to other comprehensive income	**–**	–	**–**	–	**(72.1)**	(195.8)	**–**	–	**(72.1)**	(195.8)
Withholding tax	**–**	–	**–**	–	**–**	–	**(84.8)**	(51.2)	**(84.8)**	(51.2)
Exchange differences	**62.3**	69.2	**(140.0)**	(17.3)	**13.8**	25.4	**50.7**	52.4	**(13.2)**	129.7
At 31st December	**4,243.6**	3,924.6	**1,344.6**	1,490.7	**616.8**	713.2	**1,039.5**	949.7	**7,244.5**	7,078.2

	Provisions		Tax losses		Total	
Deferred tax assets	**2021 HK$'M**	2020 HK$'M	**2021 HK$'M**	2020 HK$'M	**2021 HK$'M**	2020 HK$'M
At 1st January and 31st December	**(8.3)**	(8.3)	**(10.8)**	(10.8)	**(19.1)**	(19.1)
Net deferred tax liabilities at 31st December					**7,225.4**	7,059.1

Deferred tax assets are recognised for tax loss carry-forwards to the extent that the realisation of the related tax benefit through future taxable profits is probable. The Group did not recognise deferred tax assets of HK$927.7 million (2020: HK$807.9 million) in respect of losses amounting to HK$3,956.9 million (2020: HK$3,461.7 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$3,232.7 million (2020: HK$2,784.7 million) which will expire at various dates up to and including 2026 (2020: 2025).

34 Other non-current liabilities

	2021 HK$'M	2020 HK$'M
Customers' deposits (note (a))	**1,434.0**	1,392.2
Contract liabilities (note (b))	**889.9**	839.4
Loan payable to non-controlling shareholders	**136.0**	20.9
Lease liabilities (note (c))	**223.3**	175.0
Asset retirement obligations	**73.5**	69.1
	2,756.7	2,496.6

Notes

(a) Customers' deposits mainly represent deposits received from customers pursuant to gas supply contracts agreed with customers and are repayable upon termination of gas supply contracts subject to the customers' fulfilment of certain conditions.

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

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

35 Share capital

	Number of shares		Share capital	
	2021	2020	2021 HK$'M	2020 HK$'M
Issued and fully paid:				
At beginning of year	**17,771,304,856**	16,925,052,244	**5,474.7**	5,474.7
Bonus shares	**888,565,242**	846,252,612	**–**	–
At end of year	**18,659,870,098**	17,771,304,856	**5,474.7**	5,474.7

36 Reserves

	Investment revaluation reserve HK$'M	Hedging reserve HK$'M	Exchange reserve HK$'M	Other reserves (note) HK$'M	Retained profits HK$'M	Total HK$'M
As at 1st January 2021	770.0	(30.1)	1,547.6	–	58,996.3	61,283.8
Profit attributable to shareholders	–	–	–	–	5,017.0	5,017.0
Other comprehensive income:						
Movement in reserve of financial assets at FVOCI	(218.7)	–	–	–	–	(218.7)
Remeasurements of retirement benefit	–	–	–	–	82.8	82.8
Change in fair value of cash flow hedges	–	14.8	–	–	–	14.8
Share of other comprehensive loss of an associate	–	(3.5)	–	–	–	(3.5)
Exchange differences	–	–	1,937.2	–	–	1,937.2
Total comprehensive income for the year	(218.7)	11.3	1,937.2	–	5,099.8	6,829.6
Capital injections in subsidiaries	–	–	–	–	17.6	17.6
Further acquisition of subsidiaries (note 42(b))	–	–	–	–	(29.6)	(29.6)
Share-based payments of a subsidiary	–	–	–	36.5	–	36.5
Deemed partial disposal of subsidiaries	–	–	–	–	136.1	136.1
2020 final dividend paid	–	–	–	–	(4,087.4)	(4,087.4)
2021 interim dividend paid	–	–	–	–	(2,239.2)	(2,239.2)
Share award scheme of a subsidiary	–	–	–	4.3	–	4.3
At 31st December 2021	551.3	(18.8)	3,484.8	40.8	57,893.6	61,951.7
Balance after 2021 final dividend proposed	551.3	(18.8)	3,484.8	40.8	53,601.8	57,659.9
2021 final dividend proposed	–	–	–	–	4,291.8	4,291.8
	551.3	(18.8)	3,484.8	40.8	57,893.6	61,951.7

Note

Other reserves arise from the issue of equity-settled share-based payments to certain employees to allow them to invest indirectly in the equity interest in a subsidiary engaging in the New Energy business and the purchase of shares under a share award scheme of Towngas Smart Energy in 2021.

On 17th August 2021, Towngas Smart Energy adopted a share award scheme (the "Scheme") for the purposes of recognising the contributions by certain employees and attracting suitable personnel. The Scheme does not constitute a share option scheme or an arrangement analogous to a share option scheme for the purpose of Chapter 17 of the Listing Rules and accordingly, no shareholders' approval of Towngas Smart Energy is required to adopt the Scheme. Unless terminated earlier by the board of Towngas Smart Energy, pursuant to the Scheme, the Scheme shall be valid and effective for a period of ten years commencing on the adoption date. Details of the Scheme were disclosed in the announcement of Towngas Smart Energy dated 17th August 2021.

During the year ended 31st December 2021, 3,772,000 shares were purchased by the trustee from the market. No shares were granted to eligible employees pursuant to the Scheme during the year. At the end of the reporting period, there are 3,772,000 shares held by the trustee.

36 Reserves (Continued)

	Investment revaluation reserve HK$'M	Hedging reserve HK$'M	Exchange reserve HK$'M	Retained profits HK$'M	Total HK$'M
As at 1st January 2020	1,194.9	49.4	(1,428.3)	58,918.7	58,734.7
Profit attributable to shareholders	–	–	–	6,007.3	6,007.3
Other comprehensive income:					
Remeasurements of retirement benefit	–	–	–	55.2	55.2
Change in value of financial assets at FVOCI	(405.2)	–	–	–	(405.2)
Change in fair value of cash flow hedges	–	(83.6)	–	–	(83.6)
Share of other comprehensive loss of associates	(19.7)	4.1	–	–	(15.6)
Exchange differences	–	–	2,975.9	–	2,975.9
Total comprehensive income for the year	(424.9)	(79.5)	2,975.9	6,062.5	8,534.0
Further acquisition of subsidiaries	–	–	–	40.5	40.5
2019 final dividend paid	–	–	–	(3,892.8)	(3,892.8)
2020 interim dividend paid	–	–	–	(2,132.6)	(2,132.6)
At 31st December 2020	770.0	(30.1)	1,547.6	58,996.3	61,283.8
Balance after 2020 final dividend proposed	770.0	(30.1)	1,547.6	54,908.9	57,196.4
2020 final dividend proposed	–	–	–	4,087.4	4,087.4
	770.0	(30.1)	1,547.6	58,996.3	61,283.8

37 Perpetual capital securities

In February 2019, the Group issued the new perpetual capital securities, amounting to USD300 million, through Towngas (Finance) Limited, a wholly-owned subsidiary for cash. The proceeds were mainly used to refinance the 2014 first-issued perpetual capital securities redeemed in January 2019.

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

38 Contingent liabilities

The Company and the Group did not have any material contingent liabilities as at 31st December 2021 and 2020.

39 Commitments

(a) Capital expenditures for property, plant and equipment

	2021 HK$'M	2020 HK$'M
Contracts had been entered into but not brought into the consolidated financial statements at 31st December	**5,868.7**	5,662.6

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

	2021 HK$'M	2020 HK$'M
Contracts had been entered into but not brought into the consolidated financial statements at 31st December	**4,470.0**	3,957.4

(c) The Group has committed to provide sufficient funds in the forms of capital and loan contributions to finance certain new projects under various contracts in the Chinese mainland. The directors of the Company estimate that as at 31st December 2021, the Group's commitments to these projects were approximately HK$5,142.1 million (2020: HK$9,658.4 million).

Included in the above commitments as at 31st December 2020, Towngas Smart Energy entered into a capital increase agreement with Shenergy Group and Shanghai Gas on 27th October 2020, pursuant to which Towngas Smart Energy agreed to increase the registered capital and capital reserves of Shanghai Gas by way of capital contribution in the amount of RMB4,700.0 million (equivalent to approximately HK$5,583.3 million) and Towngas Smart Energy will own 25 per cent equity interests in Shanghai Gas upon completion. An amount of RMB350.0 million (equivalent to approximately HK$415.8 million) (note 27) was paid to Shanghai United Assets and Equity Exchange as a deposit for such acquisition of associate of Towngas Smart Energy in 2020. The acquisition was completed in July 2021.

(d) Lease commitments

Lessor

The Group leases out the building facilities of the commercial complex and car parks of Grand Waterfront (further details of the carrying value of the property are contained in note 17). Except for certain car parks rented out on an hourly or a monthly basis, these leases typically run for a period of 2 to 5 years.

At 31st December 2021 and 2020, future aggregate minimum lease payments receivable under non-cancellable operating leases are as follows:

	2021 HK$'M	2020 HK$'M
Not later than 1 year	**21.3**	19.3
Later than 1 year and not later than 5 years	**17.6**	5.7
	38.9	25.0

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 sale of goods and services

	2021 HK$'M	2020 HK$'M
Associates		
Sale of goods and services (note (i))	**204.7**	257.6
Loan interest income (note (ii))	**49.9**	60.3
Joint ventures		
Sale of goods and services (note (i))	**431.4**	143.4
Loan interest income (note (ii))	**1.6**	3.6
Other related parties		
Sale of goods and services (notes (i) and (iii))	**112.4**	26.3
Interest income from bank deposits (note (i))	**–**	3.3

(b) Interest expense and purchase of goods and services

	2021 HK$'M	2020 HK$'M
Associates		
Purchase of goods and services (note (i))	**443.1**	623.6
Joint ventures		
Purchase of goods and services (note (i))	**33.7**	53.4
Loan interest expenses (note (ii))	**15.3**	27.9
Other related parties		
Purchase of goods and services (note (i))	**9.8**	13.5
Interest expense on bank loans (note (i))	**0.2**	7.7

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.

(iii) This amount includes HK$40.8 million (2020: HK$1.8 million) that are also connected transactions under the Listing Rules.

40 Related party transactions (Continued)

(c) Year end balances arising from interest expense and sale of goods and services from other related parties

	2021 HK$'M	2020 HK$'M
Bank loans and interest payables	**40.6**	–
Trade receivables	**2.2**	2.5

Note

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

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

41 Notes to consolidated cash flow statement

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

	2021 HK$'M	2020 HK$'M
Profit before taxation	**8,380.7**	8,925.6
Share of results of associates	**(1,885.6)**	(1,187.0)
Share of results of joint ventures	**(646.9)**	(1,089.2)
Fair value (gain)/loss on investment property	**(22.0)**	3.0
Impairment loss of trade receivables	**39.7**	42.5
Provision for assets	**1,531.7**	446.8
Ineffective portion on cash flow hedges	**(4.9)**	(6.9)
Interest income	**(171.0)**	(187.2)
Interest expense	**1,408.2**	1,268.6
Dividend income from investments in securities	**(153.3)**	(143.9)
Depreciation and amortisation	**3,288.6**	2,940.6
Loss on disposal/write off of property, plant and equipment	**18.4**	72.6
(Gain)/loss on disposal of right-of-use assets	**(26.0)**	1.4
Net realised and unrealised (gains)/losses on financial assets at FVOCI	**(1.7)**	2.0
Net realised and unrealised losses on financial assets at FVPL and derivative financial instruments	**52.7**	618.5
Change in fair value of embedded derivative component of convertible bonds	**358.6**	–
Share-based payments	**36.5**	–
Tax paid	**(2,197.8)**	(1,871.4)
Exchange differences	**(81.7)**	(127.1)
Changes in working capital		
Increase in customers' deposits	**92.3**	98.7
Increase in inventories	**(385.9)**	(216.5)
Increase in trade and other receivables	**(161.7)**	(783.5)
Increase in trade payables and other liabilities	**985.5**	1,102.0
Increase/(decrease) in asset retirement obligations	**4.4**	(9.0)
Changes in retirement benefit assets	**10.7**	9.6
Net cash from operating activities	**10,469.5**	9,910.2

41 Notes to consolidated cash flow statement (Continued)

(b) Reconciliation of liabilities arising from financing activities

	Leases HK$'M	Borrowings HK$'M
At 1st January 2020	338.4	37,936.2
Cash flows	(148.0)	3,655.4
Exchange differences	24.6	376.9
Other non-cash movement	64.8	170.1
At 31st December 2020	279.8	42,138.6
Cash flows	(155.1)	12,422.6
Exchange differences	5.8	470.7
Other non-cash movement	195.8	79.2
At 31st December 2021	326.3	55,111.1

(c) During the year ended 31st December 2021, total cash outflow for lease was included in the statement of cash flows in (a) interest paid of HK$13.5 million (2020: HK$13.2 million) under "financing activities", (b) principal elements of lease payments of HK$141.6 million (2020: HK$134.8 million) under "financing activities".

(d) During the year, Towngas Smart Energy issued shares to an investor for a proceed of HK$451.9 million (note 32(b)). EcoCeres, Inc., a subsidiary of the Group also issued shares to an investor for a proceed of HK$780.3 million. The net gain of HK$136.1 million arising from these transactions with non-controlling interests was directly recognised in equity.

42 Business combinations

(a) Business combinations

For the year ended 31st December 2021, the Group acquired the following businesses:

	Purchase consideration HK$'M
銅陵市隆中環保有限公司	134.6
Jiangsu Jinzhuo Construction Engineering Co., Ltd	96.5

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

42 Business combinations (Continued)

(a) Business combinations (Continued)

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

	Acquiree's fair value at acquisition date HK$'M
Property, plant and equipment (note 16)	**73.3**
Right-of-use assets (note 18)	**6.5**
Intangible assets (note 19(b))	**103.1**
Inventories	**35.0**
Trade and other receivables	**70.0**
Cash and bank balances	**87.0**
Trade payables and other liabilities	**(151.5)**
Loan and other payables due to a non-controlling shareholder	**(9.9)**
Net assets	**213.5**
Non-controlling interests	**(24.1)**
Net identifiable assets acquired	**189.4**
Goodwill (note 19(a))	**41.7**
Purchase consideration	**231.1**

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

The non-controlling interests were measured on the basis of proportionate share of the fair value of net identifiable assets acquired as of the acquisition date.

Net cash flow arising on acquisition:

	HK$'M
Purchase consideration for acquisition of businesses, settled in cash	**215.5**
Cash and cash equivalents in businesses acquired	**(87.0)**
Cash outflow on acquisition of businesses	**128.5**

As at 31st December 2021, purchase consideration of HK$15.6 million remained unpaid and included in trade payables and other liabilities.

(b) Further acquisition of subsidiaries

During the year, the Group has further acquired the interest in several subsidiaries. The total consideration for all further acquisitions is approximately HK$50.0 million. The difference between the share of net assets value acquired and total consideration of HK$29.6 million was recognised directly in equity for these transactions with non-controlling interests.

(c) Apart from the above, there were no other material acquisitions of subsidiaries during the year ended 31st December 2021.

43 Statement of financial position of the Company

	2021 HK$'M	2020 HK$'M
Assets		
Non-current assets		
Property, plant and equipment	**12,895.9**	12,731.5
Right-of-use assets	**263.0**	262.8
Subsidiaries	**24,670.7**	22,842.0
Associate	**664.7**	664.7
Joint ventures	**831.7**	831.7
Financial assets at fair value through other comprehensive income	**–**	31.3
Retirement benefit assets	**184.0**	111.9
	39,510.0	37,475.9
Current assets		
Inventories	**1,187.0**	1,071.1
Trade and other receivables	**2,313.1**	2,256.9
Loan and other receivables from associates	**22.4**	22.3
Other receivables from joint ventures	**27.9**	30.6
Derivative financial instruments	**1.3**	–
Time deposits up to three months, cash and bank balances	**898.5**	1,063.8
	4,450.2	4,444.7
Current liabilities		
Trade payables and other liabilities	**(1,817.4)**	(1,790.0)
Provision for taxation	**(162.6)**	(640.3)
Borrowings	**(1,250.0)**	–
	(3,230.0)	(2,430.3)
Total assets less current liabilities	**40,730.2**	39,490.3
Non-current liabilities		
Loan and other payables to subsidiaries	**(18,341.7)**	(15,887.3)
Deferred taxation	**(1,487.9)**	(1,463.8)
Borrowings	**(1,493.9)**	(1,489.4)
Other non-current liabilities	**(1,432.9)**	(1,402.2)
	(22,756.4)	(20,242.7)
Net assets	**17,973.8**	19,247.6

43 Statement of financial position of the Company (Continued)

	2021 HK$'M	2020 HK$'M
Capital and reserves		
Share capital	**5,474.7**	5,474.7
Retained profits (note (a))	**12,499.1**	13,772.9
	17,973.8	19,247.6

Approved by the Board of Directors on 21st March 2022

Lee Ka-kit
Director

David Li Kwok-po
Director

43 Statement of financial position of the Company (Continued)

Note

(a) Retained profits

	HK$'M
At 1st January 2021	**13,772.9**
Profit attributable to shareholders	**4,970.0**
Other comprehensive income:	
Remeasurements of retirement benefit	**82.8**
Total comprehensive income for the year	**5,052.8**
2020 final dividend paid	**(4,087.4)**
2021 interim dividend paid	**(2,239.2)**
At 31st December 2021	**12,499.1**
Balance after 2021 final dividend proposed	**8,207.3**
2021 final dividend proposed	**4,291.8**
	12,499.1
At 1st January 2020	14,441.7
Profit attributable to shareholders	5,301.4
Other comprehensive income:	
Remeasurements of retirement benefit	55.2
Total comprehensive income for the year	5,356.6
2019 final dividend paid	(3,892.8)
2020 interim dividend paid	(2,132.6)
At 31st December 2020	13,772.9
Balance after 2020 final dividend proposed	9,685.5
2020 final dividend proposed	4,087.4
	13,772.9

Subsidiaries

The following is a list of the principal subsidiaries as at 31st December 2021:

	Name	Issued share capital/ registered capital	Percentage of issued/ registered capital held	Place of incorporation/ operation	Principal activity
	Gas and related businesses in Hong Kong				
	Towngas Enterprise Limited	HK$2	100	Hong Kong	Café, restaurant and retail sales
	Summit Result Developments Limited	HK$100	100	Hong Kong	Customers centre
	Uticom Limited	HK$100	100	Hong Kong	Development of automatic meter reading system
#	Quality Testing Services Limited	HK$10,000	100	Hong Kong	Laboratory testing
	Gas, water and related businesses in the Chinese mainland				
†	Hong Kong and China Gas Agricultural Investment (Nanjing) Limited	RMB50.0 million	100	PRC	Agricultural and related businesses
	港華紫荊農莊（句容）有限公司	RMB40.0 million	78.3	PRC	Agricultural and related businesses
1	Jiangsu Jinzhuo Construction Engineering Co., Ltd.	RMB100.0 million	62.8	PRC	Engineering work services
	Chaozhou Hong Kong and China Gas Co., Ltd.	HK$100.0 million	60	PRC	Gas sales and related businesses
	Danyang Hongkong and China Gas Co., Ltd.	RMB60.0 million	80	PRC	Gas sales and related businesses
	Fengcheng Hong Kong & China Gas Co. Ltd.	RMB88.0 million	55	PRC	Gas sales and related businesses
	Guangzhou Dongyong Hong Kong & China Gas Company Limited	HK$71.3 million	82.6	PRC	Gas sales and related businesses
	Guangzhou Hong Kong and China Gas Company Limited	RMB105.0 million	80	PRC	Gas sales and related businesses
	Jiangxi Hong Kong & China Gas Co., Ltd.	RMB25.9 million	56	PRC	Gas sales and related businesses
	Jilin Hong Kong and China Gas Company Limited	RMB100.0 million	63	PRC	Gas sales and related businesses
	Jingxian Hong Kong and China Gas Company Limited	RMB79.0 million	81	PRC	Gas sales and related businesses
†	Peixian Hongkong and China Gas Company Limited	RMB100.0 million	100	PRC	Gas sales and related businesses
†	Pingxiang Hong Kong & China Gas Co., Ltd.	RMB104.8 million	100	PRC	Gas sales and related businesses
†	Suining Hong Kong and China Gas Co., Ltd.	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 & China Gas Co., Ltd.	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	RMB172.0 million	80	PRC	Gas sales and related businesses
†	Zhang Shu Hong Kong & China Gas Co., Ltd.	US$5.0 million	100	PRC	Gas sales and related businesses

Direct subsidiaries of the Company
† Wholly foreign-owned enterprises
1 Newly formed/acquired during the year

Subsidiaries (Continued)

The following is a list of the principal subsidiaries as at 31st December 2021: (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 the Chinese mainland (Continued)				
	Zhongshan Hong Kong and China Gas Limited	RMB96.0 million	70	PRC	Gas sales and related businesses
	常州金壇港華燃氣有限公司	RMB120.0 million	60	PRC	Gas sales and related businesses
†	豐縣港華燃氣有限公司	US$4.5 million	100	PRC	Gas sales and related businesses
	饒平港華燃氣有限公司	HK$126.0 million	60	PRC	Gas sales and related businesses
†	新密港華燃氣有限公司	US$12.5 million	100	PRC	Gas sales and related businesses
†	港華儲氣(金壇)有限公司	RMB300.0 million	100	PRC	Gas storage project
†	C-Tech Investment Company Limited	RMB210.0 million	100	PRC	Investment holding
†	Hong Kong & China Gas Investment Limited	US$75.0 million	100	PRC	Investment holding
†	Hua Yan Environmental Investment (JiangSu) Co., Ltd.	RMB800.0 million	100	PRC	Investment holding
*	Towngas Smart Energy Company Limited	3,159,895,343 shares of HK$0.1 each	66	Cayman Islands/ Hong Kong	Investment holding
	丹陽卓惠洗滌有限公司	RMB20.0 million	80	PRC	Laundry business
	唐山卓惠洗滌有限公司	RMB20.0 million	80	PRC	Laundry business
†	唐山皓華貿易有限公司	RMB250.0 million	100	PRC	LNG storage tanks and terminal
†	Maanshan Hong Kong and China Water Company Limited	RMB212.6 million	100	PRC	Water supply and related businesses
#	Wuhu Hong Kong and China Water Company Limited	RMB400.0 million	75	PRC	Water supply and related businesses
	Wujiang Hong Kong & China Water Co., Ltd.	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
	The following subsidiaries engaged in gas and related businesses are held by Towngas Smart Energy and the respective equity interest held by Towngas Smart Energy is shown accordingly.				
†	*U-Tech (Guang Dong) Engineering Construction Co., Ltd*	*RMB74.0 million*	*100*	*PRC*	*Engineering and related business*
†	*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	*RMB20.0 million*	*85*	*PRC*	*Gas sales and related businesses*
	Beipiao Hong Kong and China Gas Company Limited	*RMB56.0 million*	*80*	*PRC*	*Gas sales and related businesses*
	Ben Xi Hongkong and China Gas Company Limited	*RMB335.0 million*	*80*	*PRC*	*Gas sales and related businesses*
	Boxing Hong Kong & China Gas Co., Ltd	*RMB40.0 million*	*65*	*PRC*	*Gas sales and related businesses*
†	*Cang Xi Hong Kong and China Gas Company Limited*	*RMB20.0 million*	*100*	*PRC*	*Gas sales and related businesses*
	Cangxian Hong Kong & China Gas Co., Ltd.	*RMB10.0 million*	*90*	*PRC*	*Gas sales and related businesses*
	Changting Hong Kong and China Gas Company Limited	*RMB22.0 million*	*90*	*PRC*	*Gas sales and related businesses*

† Wholly foreign-owned enterprises
* Listed on The Stock Exchange of Hong Kong Limited
# Direct subsidiaries of the Company

Subsidiaries (Continued)

The following is a list of the principal subsidiaries as at 31st December 2021: (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 the Chinese mainland (Continued)				
Chaoyang Hongkong and China Gas Company Limited	*US$10.8 million*	*90*	*PRC*	*Gas sales and related businesses*
Chi Ping Hongkong and China Gas Co. Ltd.	*RMB40.0 million*	*85*	*PRC*	*Gas sales and related businesses*
† *Chizhou Hong Kong and China Gas Company Ltd*	*RMB70.0 million*	*100*	*PRC*	*Gas sales and related businesses*
Da Yi Hong Kong and China Gas Company Limited	*RMB20.0 million*	*100*	*PRC*	*Gas sales and related businesses*
Dafeng Hong Kong and China Gas Company Limited	*RMB80.0 million*	*51*	*PRC*	*Gas sales and related businesses*
† *Dalian Changxing Hong Kong and China Gas Co. Ltd.*	*US$14.0 million*	*100*	*PRC*	*Gas sales and related businesses*
† *Dalian Lvshun Hong Kong and China Gas Co. Ltd.*	*US$15.0 million*	*100*	*PRC*	*Gas sales and related businesses*
† *Feicheng Hong Kong and China Gas Company Limited*	*RMB32.0 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*
† *Gao Chun Hong Kong and China Gas Co., Ltd.*	*US$11.0 million*	*100*	*PRC*	*Gas sales and related businesses*
† *Gongzhuling Hong Kong and China Gas Company Limited*	*RMB88.0 million*	*100*	*PRC*	*Gas sales and related businesses*
† *Guilin Hong Kong & China Gas Co., Ltd.*	*RMB30.0 million*	*100*	*PRC*	*Gas sales and related businesses*
† *Huang Shan Hong Kong & China Gas Co., Ltd.*	*RMB40.0 million*	*100*	*PRC*	*Gas sales and related businesses*
† *Huang Shan Taiping Hong Kong & China Gas Co., Ltd.*	*US$3.5 million*	*100*	*PRC*	*Gas sales and related businesses*
† *Huangshan Huizhou Hong Kong & China Gas Co., Ltd.*	*US$2.1 million*	*100*	*PRC*	*Gas sales and related businesses*
Huzhou Hong Kong and China Gas Company Limited	*US$10.5 million*	*98.9*	*PRC*	*Gas sales and related businesses*
Ji Nan Ping Yin Hong Kong & China Gas Co., Ltd.	*RMB200.0 million*	*82.2*	*PRC*	*Gas sales and related businesses*
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*
† *Kazuo Hong Kong & China Gas Co., Ltd.*	*US$6.4 million*	*100*	*PRC*	*Gas sales and related businesses*
† *Laiyang Hong Kong and China Gas Co., Ltd.*	*US$11.5 million*	*100*	*PRC*	*Gas sales and related businesses*
† *Lezhi Hong Kong and China Gas Company Limited*	*RMB30.0 million*	*100*	*PRC*	*Gas sales and related businesses*
† *Liuzhou Hong Kong & China Gas Co., Ltd.*	*RMB50.0 million*	*100*	*PRC*	*Gas sales and related businesses*
† *Longkou Hongkong and China Gas Company Limited*	*US$7.1 million*	*100*	*PRC*	*Gas sales and related businesses*

† Wholly foreign-owned enterprises

Subsidiaries (Continued)

The following is a list of the principal subsidiaries as at 31st December 2021: (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 the Chinese mainland (Continued)				
†	*Luliang Hong Kong & China Gas Company Limited*	*RMB52.0 million*	*100*	*PRC*	*Gas sales and related businesses*
	Maanshan Bowang Hong Kong & China Gas Co., Ltd.	*US$10.0 million*	*75.1*	*PRC*	*Gas sales and related businesses*
†	*Maanshan Jiangbei Hong Kong and China Towngas Company Limited*	*US$10.0 million*	*100*	*PRC*	*Gas sales and related businesses*
	Mei Shan Peng Shan Hong Kong and China Gas Company Limited	*RMB20.0 million*	*70*	*PRC*	*Gas sales and related businesses*
	Mengcun Hong Kong & China Gas Co., Ltd.	*RMB10.0 million*	*90*	*PRC*	*Gas sales and related businesses*
	Mianyang Heqing Towngas Co., Ltd.	*RMB10.0 million*	*80*	*PRC*	*Gas sales and related businesses*
†	*Mianyang Hong Kong & China Gas Co., Ltd.*	*RMB90.0 million*	*100*	*PRC*	*Gas sales and related businesses*
	Mianzhu Hong Kong and China Gas Co., Ltd.	*RMB30.0 million*	*80*	*PRC*	*Gas sales and related businesses*
	Mianzhu Yuquan Hong Kong and China Gas Co., Ltd.	*RMB5.0 million*	*80*	*PRC*	*Gas sales and related businesses*
	Miluo Hong Kong and China Gas Co. Ltd	*RMB50.0 million*	*70*	*PRC*	*Gas sales and related businesses*
	Peng Xi Hong Kong and China Gas Company Limited	*RMB20.0 million*	*100*	*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*
	Qinhuangdao Hong Kong & China Gas Co., Ltd.	*RMB15.0 million*	*51*	*PRC*	*Gas sales and related businesses*
†	*Shenyang Hong Kong & China Gas Company Limited*	*US$24.5 million*	*100*	*PRC*	*Gas sales and related businesses*
	Siping Hong Kong & China Gas Company Limited	*RMB45.0 million*	*80*	*PRC*	*Gas sales and related businesses*
	Tie Ling Hong Kong and China Gas Company Limited	*RMB233.0 million*	*80*	*PRC*	*Gas sales and related businesses*
†	*Tongshan Hong Kong and China Gas Co. Ltd*	*RMB124.0 million*	*100*	*PRC*	*Gas sales and related businesses*
	Tongxiang Hong Kong and China Gas Company Limited	*US$7.0 million*	*76*	*PRC*	*Gas sales and related businesses*
†	*Wuhu Jiangbei Hong Kong & China Gas Company Limited*	*RMB200.0 million*	*100*	*PRC*	*Gas sales and related businesses*
	Wulian Hong Kong & China Gas Company Limited	*RMB20.0 million*	*70*	*PRC*	*Gas sales and related businesses*
†	*Wuning Hong Kong & China Gas Co., Ltd.*	*RMB40.0 million*	*100*	*PRC*	*Gas sales and related businesses*
	Xin Jin Hong Kong and China Gas Company Limited	*RMB40.0 million*	*60*	*PRC*	*Gas sales and related businesses*
	Xingyi Hong Kong & China Gas Company Limited	*RMB50.0 million*	*70*	*PRC*	*Gas sales and related businesses*

† Wholly foreign-owned enterprises

Subsidiaries (Continued)

The following is a list of the principal subsidiaries as at 31st December 2021: (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 the Chinese mainland (Continued)				
Yan Shan Hong Kong & China Gas Co., Ltd.	*RMB10.0 million*	*90*	*PRC*	*Gas sales and related businesses*
† *Yang Jiang Hong Kong and China Gas Company Limited*	*RMB50.0 million*	*100*	*PRC*	*Gas sales and related businesses*
Yangxin Hongkong & China Gas Company Limited	*RMB18.0 million*	*51*	*PRC*	*Gas sales and related businesses*
† *Yifeng Hongkong and China Gas Co., Ltd.*	*RMB32.0 million*	*100*	*PRC*	*Gas sales and related businesses*
† *Yingkou Hong Kong and China Gas Co., Ltd.*	*US$9.4 million*	*100*	*PRC*	*Gas sales and related businesses*
Yue Chi Hong Kong and China Gas Company Limited	*RMB30.0 million*	*90*	*PRC*	*Gas sales and related businesses*
† *Zhao Yuan Hong Kong & China Gas Co., Ltd.*	*RMB22.0 million*	*100*	*PRC*	*Gas sales and related businesses*
† *Zhong Jiang Hong Kong and China Gas Company Limited*	*RMB30.0 million*	*100*	*PRC*	*Gas sales and related businesses*
† *Zhongxiang Hong Kong & China Gas Co., Ltd.*	*RMB42.0 million*	*100*	*PRC*	*Gas sales and related businesses*
潮州楓溪港華燃氣有限公司	*RMB60.0 million*	*60*	*PRC*	*Gas sales and related businesses*
成都新都港華燃氣有限公司	*RMB50.0 million*	*100*	*PRC*	*Gas sales and related businesses*
大連瓦房店港華燃氣有限公司	*RMB40.0 million*	*90*	*PRC*	*Gas sales and related businesses*
† *阜新大力燃氣有限責任公司*	*RMB13.9 million*	*100*	*PRC*	*Gas sales and related businesses*
† *阜新新邱港華燃氣有限公司*	*RMB34.0 million*	*100*	*PRC*	*Gas sales and related businesses*
† *廣西中威管道燃氣發展集團有限責任公司*	*RMB30.0 million*	*100*	*PRC*	*Gas sales and related businesses*
簡陽港華燃氣有限公司	*RMB150.0 million*	*100*	*PRC*	*Gas sales and related businesses*
九江港華燃氣有限公司	*RMB10.0 million*	*60*	*PRC*	*Gas sales and related businesses*
平昌港華燃氣有限公司	*RMB20.0 million*	*90*	*PRC*	*Gas sales and related businesses*
齊齊哈爾港華燃氣有限公司	*RMB128.6 million*	*61.7*	*PRC*	*Gas sales and related businesses*
青島嶗山灣港華能源有限公司	*RMB30.0 million*	*60*	*PRC*	*Gas sales and related businesses*
清遠港華燃氣有限公司	*RMB50.0 million*	*80*	*PRC*	*Gas sales and related businesses*
韶關港華燃氣有限公司	*RMB50.0 million*	*100*	*PRC*	*Gas sales and related businesses*
松陽港華燃氣有限公司	*RMB80.0 million*	*51.4*	*PRC*	*Gas sales and related businesses*
威遠港華燃氣有限公司	*RMB30.0 million*	*100*	*PRC*	*Gas sales and related businesses*
修水港華燃氣有限公司	*RMB30.0 million*	*80*	*PRC*	*Gas sales and related businesses*
資陽港華燃氣有限公司	*RMB30.0 million*	*90*	*PRC*	*Gas sales and related businesses*
† *C-Tech Laundry Company Limited*	*RMB50.0 million*	*100*	*PRC*	*Investment holding*
† *Towngas China Energy Investment Limited*	*RMB250.0 million*	*100*	*PRC*	*Investment holding*
† *Towngas Investments Limited*	*US$200.0 million*	*100*	*PRC*	*Investment holding*
† *港華舒適家（成都）科技服務有限公司*	*RMB10.0 million*	*100*	*PRC*	*Investment holding*
內蒙古港億天然氣有限公司	*RMB80.0 million*	*85*	*PRC*	*Mid-stream natural gas project*
† *Towngas Natural Gas Sales Co., Ltd.*	*RMB50.0 million*	*100*	*PRC*	*Procurement of natural gas sources*
四川港華合縱能源有限公司	*RMB230.0 million*	*98.8*	*PRC*	*Upstream natural gas project*
Heilongjiang Hong Kong & China Lianfu New Energy Company Limited	*RMB13.0 million*	*55*	*PRC*	*Vehicle gas refilling stations*
† *Qiqihar Xingqixiang Gas Company Limited*	*RMB60.0 million*	*100*	*PRC*	*Vehicle gas refilling stations*

† Wholly foreign-owned enterprises

Subsidiaries (Continued)

The following is a list of the principal subsidiaries as at 31st December 2021: (Continued)

	Name	Issued share capital/ registered capital	Percentage of issued/ registered capital held	Place of incorporation/ operation	Principal activity
	Smart Energy businesses				
	長沙港能投智慧能源有限公司	RMB5.0 million	100	PRC	Energy conservation project
1	深圳港華綜合能源有限公司	RMB14.0 million	100	PRC	Energy conservation project
	Dunhuang Towngas China Energy Storage Power Plant Co., Ltd.	RMB14.0 million	100	PRC	Energy storage project
	港華綜合電能投資（深圳）有限公司	RMB610.0 million	100	PRC	Investment holding
	Foshan Towngas China PV Power Generation Co., Ltd.	RMB21.0 million	100	PRC	Photovoltaic project
1	常州港能投智慧能源有限公司	RMB100.0 million	55	PRC	Photovoltaic project
	廣東晟桂電力有限公司	RMB15.0 million	100	PRC	Photovoltaic project
1	江門市南盈太陽能科技有限公司	RMB16.0 million	100	PRC	Photovoltaic project
1	濟寧道宏新能源有限公司	RMB11.0 million	100	PRC	Photovoltaic project
	泉州港能投光伏有限公司	RMB24.0 million	100	PRC	Photovoltaic project
	宿遷港能投光伏有限公司	RMB30.0 million	100	PRC	Photovoltaic project
	廈門港能投光伏有限公司	RMB46.0 million	100	PRC	Photovoltaic project
	新野縣啟電光伏科技有限公司	RMB13.0 million	100	PRC	Photovoltaic project

The following subsidiaries engaged in smart energy businesses are held by Towngas Smart Energy and the respective equity interest held by Towngas Smart Energy is shown accordingly.

	Name	Issued share capital/ registered capital	Percentage of issued/ registered capital held	Place of incorporation/ operation	Principal activity
ʃ	*Changzhou Towngas China Energy Co., Ltd.*	*RMB31.0 million*	*45*	*PRC*	*Distributed energy systems businesses*
	Maanshan Towngas China Energy Co., Ltd.	*RMB50.0 million*	*85*	*PRC*	*Distributed energy systems businesses*
	Qingdao Towngas China Energy Co., Ltd.	*RMB15.4 million*	*62.4*	*PRC*	*Distributed energy systems businesses*
†	*Shenzhen Towngas China Energy Co., Ltd.*	*RMB6.0 million*	*100*	*PRC*	*Distributed energy systems businesses*
	Songyang Towngas China Energy Co., Ltd	*RMB30.0 million*	*85.4*	*PRC*	*Distributed energy systems businesses*
	Tangshan Fengnan Towngas China Energy Co., Ltd.	*RMB96.0 million*	*51*	*PRC*	*Distributed energy systems businesses*
	Xuzhou Economic and Technological Development Zone Towngas China Energy Co., Ltd.	*RMB80.0 million*	*70*	*PRC*	*Distributed energy systems businesses*
†	*廣西港華智慧能源有限公司*	*RMB10.0 million*	*100*	*PRC*	*Distributed energy systems businesses*
	瀋陽智慧能源系統科技有限公司	*RMB100.0 million*	*55*	*PRC*	*Distributed energy systems businesses*
ʃ	*唐山港能投智慧能源有限公司*	*RMB80.0 million*	*49*	*PRC*	*Distributed energy systems businesses*
ʃ	*徐州工業園區中港熱力有限公司*	*RMB160.0 million*	*49.8*	*PRC*	*Distributed energy systems businesses*
	陽信港能投智慧能源有限公司	*RMB15.0 million*	*67.8*	*PRC*	*Distributed energy systems businesses*

1 Newly formed/acquired during the year
† Wholly foreign-owned enterprises
ʃ The Group can exercise control over the boards of directors in these subsidiaries

Subsidiaries (Continued)

The following is a list of the principal subsidiaries as at 31st December 2021: (Continued)

Name	Issued share capital/ registered capital	Percentage of issued/ registered capital held	Place of incorporation/ operation	Principal activity
Smart Energy businesses (Continued)				
[1] *濟寧港華智慧能源有限公司*	*RMB200.0 million*	*85*	*PRC*	*Smart energy businesses*
†[1] *聊城港能投光伏發電有限公司*	*RMB28.0 million*	*100*	*PRC*	*Smart energy businesses*
[1] *港華時代智慧能源科技（蘇州）有限公司*	*RMB20.0 million*	*65*	*PRC*	*Smart energy businesses*
†[1] *崇陽禾沐新能源科技有限公司*	*RMB10.0 million*	*100*	*PRC*	*Smart energy businesses*
†[1] *港華（深圳）碳資產運營有限公司*	*RMB40.0 million*	*100*	*PRC*	*Smart energy businesses*
† *Anqiu Towngas China PV Power Generation Co., Ltd.*	*RMB47.0 million*	*100*	*PRC*	*Smart energy businesses*
† *Qingdao Towngas China PV Power Generation Co., Ltd.*	*RMB29.0 million*	*100*	*PRC*	*Smart energy businesses*
† *Shuyang Zhongye Shukai New Energy Co., Ltd.*	*RMB30.0 million*	*100*	*PRC*	*Smart energy businesses*
† *Binzhou Xinrunfeng New Energy Co., Ltd.*	*RMB15.0 million*	*100*	*PRC*	*Smart energy businesses*
† *Yancheng Towngas China Smart Energy Co., Ltd.*	*RMB34.0 million*	*100*	*PRC*	*Smart energy businesses*
† *Maanshan Zhengpugang New District Towngas China Photovoltaic Co., Ltd.*	*RMB3.5 million*	*100*	*PRC*	*Smart energy businesses*
† *Qingdao Towngas China Photovoltaic Co., Ltd.*	*RMB80.0 million*	*100*	*PRC*	*Smart energy businesses*
† *Ben Xi Towngas China Energy Co., Ltd.*	*RMB100.0 million*	*100*	*PRC*	*Smart energy businesses*
† *Wuhan Towngas China Energy Co., Ltd.*	*RMB12.0 million*	*100*	*PRC*	*Smart energy businesses*
† *Tangshan Towngas China Integrated Energy Co., Ltd.*	*RMB150.0 million*	*100*	*PRC*	*Smart energy businesses*
† *Yangtze River Delta Integrated Development Demonstration Zone (Suzhou Wujiang) Towngas China Energy Co., Ltd.*	*RMB150.0 million*	*100*	*PRC*	*Smart energy businesses*
Liyang Hengdian Towngas China PV Power Generation Co., Ltd.	*RMB22.5 million*	*60*	*PRC*	*Smart energy businesses*
Danyang Towngas China Energy Storage Power Plant Co., Ltd.	*RMB30.0 million*	*90*	*PRC*	*Smart energy businesses*
Suzhou Guangchen Towngas China PV Power Generation Co., Ltd.	*RMB15.0 million*	*80*	*PRC*	*Smart energy businesses*
Taizhou Towngas China Energy Co., Ltd.	*RMB210.0 million*	*80*	*PRC*	*Smart energy businesses*
New Energy businesses				
ECO Aviation Fuel Development Limited	HK$2	100	Hong Kong	Aviation fuel facility
ECO Aviation Fuel Services Limited	HK$10,000	100	Hong Kong	Aviation fuel facility
P-Tech Landfill Gas (NENT) Limited (formerly known as ECO Landfill Gas (NENT) Limited)	HK$100	100	Hong Kong	Landfill gas project
P-Tech Landfill Gas (SENT) Company Limited	HK$100	100	Hong Kong	Landfill gas project
內蒙古易高煤化科技有限公司	RMB1,407.2 million	100	PRC	Chemical business
† Inner Mongolia Ke Jian Coal Company Limited	RMB486.0 million	100	PRC	Coal related business
秦皇島易騰商貿有限公司	US$20.0 million	100	PRC	Coal related business

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

Subsidiaries (Continued)

The following is a list of the principal subsidiaries as at 31st December 2021: (Continued)

	Name	Issued share capital/ registered capital	Percentage of issued/ registered capital held	Place of incorporation/ operation	Principal activity
	New Energy businesses (Continued)				
†	易高卓新節能技術（上海）有限公司	RMB14.0 million	100	PRC	Consultancy service
	易高清潔能源管理服務（西安）有限公司	US$1.5 million	100	PRC	Consultancy service
†	易高新能源工程管理服務（深圳）有限公司	RMB15.0 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
1	EcoCeres, Inc.	US$28,746	90	Cayman Islands	Investment holding
†	ECO Environmental Energy Investments Limited	US$100.0 million	100	PRC	Investment holding
†1	宜安（內蒙古）控股有限公司	US$238.2 million	100	PRC	Investment holding
	Shanxi ECO Coalbed Methane Co., Ltd.	RMB200.0 million	70	PRC	LNG business
	徐州易高中泰新能源有限公司	US$24.5 million	100	PRC	LNG business
†	寧夏易達天然氣有限公司	RMB210.0 million	70	PRC	LNG business
	山東嘉祥易隆港務有限公司	RMB180.0 million	88	PRC	Logistics business
	ECO Orient Resources (Thailand) Ltd.	THB425.0 million	100	Thailand	Oil business
†	ECO Services Management Company Limited	RMB80.0 million	100	PRC	Project management
	The following subsidiaries are held by EcoCeres, Inc. and the respective equity interest held by EcoCeres, Inc. is shown accordingly.				
	ECO Biochemical Technology (Zhangjiagang) Company Limited	*US$59.9 million*	*100*	*PRC*	*Chemical business*
†	*Hebei ECO Biofuel Company Limited*	*RMB200.0 million*	*100*	*PRC*	*Chemical business*
†	*Hebei ECO Bioenergy Company Limited*	*RMB187.5 million*	*100*	*PRC*	*Chemical business*
	唐山易高農業科技有限公司	*RMB3.0 million*	*100*	*PRC*	*Chemical business*
	ECO Biofuel Technology Company Limited	*HK$100*	*100*	*Hong Kong*	*Investment holding*
	ECO Biotechnology Company Limited	*HK$100*	*100*	*Hong Kong*	*Investment holding*
	ECO Environmental Investments (China) Limited	*HK$92*	*100*	*Hong Kong*	*Investment holding*
†	*ECO Environmental Resources Investments Limited*	*US$60.8 million*	*100*	*PRC*	*Investment holding*
	EcoCeres Limited (formerly known as ECO Resources Trading Limited)	*HK$100*	*100*	*Hong Kong*	*Trading of chemicals*
	Other businesses				
#	P-Tech Engineering Company Limited	HK$2	100	Hong Kong	Engineering and related businesses
	U-Tech Engineering Company Limited	HK$22.2 million	100	Hong Kong	Engineering and related businesses
	M-Tech Instrument (Hong Kong) Limited	HK$100	100	Hong Kong	Gas meter and related businesses
†	卓度計量技術（深圳）有限公司	RMB60.0 million	100	PRC	Gas meter and related businesses
1	卓明信息（深圳）有限公司	RMB49.0 million	100	PRC	Payment gateway and related businesses
	G-Tech Piping Company Limited	HK$100	100	Hong Kong	PE piping business
†	卓通管道系統（中山）有限公司	RMB41.0 million	100	PRC	PE piping business

† Wholly foreign-owned enterprises
1 Newly formed/acquired during the year
Direct subsidiaries of the Company

Subsidiaries (Continued)

The following is a list of the principal subsidiaries as at 31st December 2021: (Continued)

	Name	Issued share capital/ registered capital	Percentage of issued/ registered capital held	Place of incorporation/ operation	Principal activity
	Other businesses (Continued)				
	Starmax Assets Limited	HK$90.0 million	100	British Virgin Islands/ Hong Kong	Property development
	卓銳智高（武漢）科技有限公司	RMB51.2 million	100	PRC	System development & consulting services
†	珠海卓銳高科信息技術有限公司	RMB7.0 million	100	PRC	System development & consulting services
	HDC Data Centre Limited	HK$100	100	Hong Kong	Telecommunications business
	TGT China Cloud Data Services (Harbin) Co., Ltd.	RMB112.0 million	88.8	PRC	Telecommunications business
	TGT Union Financial Data Services (Dongguan) Co., Ltd.	RMB80.0 million	60	PRC	Telecommunications business
	Towngas Chibo Data Service (Jinan) Co., Ltd.	RMB168.0 million	90.5	PRC	Telecommunications business
†	Towngas Telecom (Fengxian) Company Limited	RMB7.5 million	100	PRC	Telecommunications business
†	Towngas Telecom (Peixian) Co., Ltd.	RMB9.0 million	100	PRC	Telecommunications business
	Towngas Telecom (Shandong) Company Limited	RMB40.0 million	90.1	PRC	Telecommunications business
†	Towngas Telecommunications (Shenzhen) Limited	RMB6.0 million	100	PRC	Telecommunications business
	Towngas Telecommunications Fixed Network Limited	HK$35.0 million	100	Hong Kong	Telecommunications business
	北京馳波名氣通數據服務有限公司	RMB10.0 million	99.1	PRC	Telecommunications business
	大連億達名氣通數據服務有限公司	RMB76.0 million	90	PRC	Telecommunications business
	萊陽名氣通電訊有限公司	US$1.6 million	90	PRC	Telecommunications business
†	名氣通網絡（深圳）有限公司	RMB179.5 million	100	PRC	Telecommunications business
	Financing & securities investments				
	C-Tech (Finance) Limited	HK$100	100	Hong Kong	Financing
#	Eagle Legend International Limited	HK$100	100	Hong Kong	Financing
#	HKCG (Finance) Limited	HK$100	100	Hong Kong	Financing
	Hong Kong and China Energy (Finance) Limited	HK$100	100	Hong Kong	Financing
	Hong Kong and China Power (Finance) Limited	HK$100	100	Hong Kong	Financing
	TCCL (Finance) Limited	HK$1	66	Hong Kong	Financing
	TCCL (Project Finance) Limited	HK$100	66	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
	China Guide Resources Limited	HK$100	100	Hong Kong	Securities investment
	Danetop Services Limited	US$1	100	British Virgin Islands/ Hong Kong	Securities investment
	Investstar Limited	HK$100	100	Hong Kong	Securities investment
	Premier Century Investments 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

Direct subsidiaries of the Company
† Wholly foreign-owned enterprises

Subsidiaries (Continued)

The following is a list of the principal subsidiaries as at 31st December 2021: (Continued)

	Name	Issued share capital/ registered capital	Percentage of issued/ registered capital held	Place of incorporation/ operation	Principal activity
	Investment holding				
	Apex Time Holdings Limited	HK$100	100	Hong Kong	Investment holding
	C-Tech Laundry (0003) Investment Company Limited	HK$100	100	Hong Kong	Investment holding
	ECO Advanced Carbon Materials Company Limited	HK$100	100	Hong Kong	Investment holding
	ECO Coal Chemical Technology (Inner Mongolia) Limited	HK$100	100	Hong Kong	Investment holding
	ECO Environmental Energy (China) Limited	HK$100	100	Hong Kong	Investment holding
	ECO Environmental Investments (China) Limited	US$1	100	British Virgin Islands	Investment holding
	ECO Environmental Investments Limited	HK$2	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
1	EcoCeres, Inc.	US$4	100	British Virgin Islands	Investment holding
	Fanico Investments Limited	HK$1	100	Hong Kong	Investment holding
	G-Tech Piping Technologies Limited	HK$100	100	Hong Kong	Investment holding
	Hong Kong & China Gas (Anhui) Limited	US$1	100	British Virgin Islands/ Hong Kong	Investment holding
	Hong Kong & China Gas (Changzhou) Limited	US$1	100	British Virgin Islands/ Hong Kong	Investment holding
	Hong Kong & China Gas (Chaozhou) Limited	US$1	100	British Virgin Islands/ Hong Kong	Investment holding
	Hong Kong & China Gas (China) Limited	HK$10,000	100	British Virgin Islands/ Hong Kong	Investment holding
	Hong Kong & China Gas (Danyang) Limited	US$1	100	British Virgin Islands/ Hong Kong	Investment holding
	Hong Kong & China Gas (Fengcheng) Limited	US$1	100	British Virgin Islands/ Hong Kong	Investment holding
	Hong Kong & China Gas (Guangzhou) Limited	HK$1,000	100	British Virgin Islands/ Hong Kong	Investment holding
	Hong Kong & China Gas (Hebei) Limited	US$1	100	British Virgin Islands/ Hong Kong	Investment holding
	Hong Kong & China Gas (Jilin Province) Limited	US$1	100	British Virgin Islands/ Hong Kong	Investment holding
	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 (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

1 Newly formed/acquired during the year

Subsidiaries (Continued)

The following is a list of the principal subsidiaries as at 31st December 2021: (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 (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 Gas LNG International Trading Limited	US$1	100	British Virgin Islands	Investment holding
Hong Kong & China Water (Suzhou) Limited	US$1	100	British Virgin Islands/ Hong Kong	Investment holding
Hong Kong & China Water (Wujiang) Limited	US$1	100	British Virgin Islands/ Hong Kong	Investment holding
Hong Kong & China Water Limited (carrying on business in Hong Kong as Hua Yan Water (China) Limited)	US$1	100	British Virgin Islands/ Hong Kong	Investment holding
Hong Kong and China Energy Holdings Company Limited	HK$100	100	Hong Kong	Investment holding
Hong Kong and China Energy Investment Holdings Company Limited	US$1	100	British Virgin Islands	Investment holding
Hong Kong and China Environmental Holdings Company Limited	HK$100	100	Hong Kong	Investment holding
Hong Kong and China Gas (Hainan) Limited	HK$100	100	Hong Kong	Investment holding
Hong Kong and China Gas (Jiangsu) Agricultural Limited	HK$100	100	Hong Kong	Investment holding
Hong Kong and China Gas (Jiangxi) Limited	HK$100	100	Hong Kong	Investment holding
Hong Kong and China Gas (Jingxian) Limited	HK$100	100	Hong Kong	Investment holding
Hong Kong and China Gas (Qianhai) Limited	HK$100	100	Hong Kong	Investment holding
Hong Kong and China Gas (Suxiang) Limited	HK$100	100	Hong Kong	Investment holding
Hong Kong and China Gas (Tangshan) Limited	HK$100	100	Hong Kong	Investment holding
Hong Kong and China Gas (Xinmi) Limited	HK$100	100	Hong Kong	Investment holding
Hong Kong and China Gas (Zhangshu) Limited	HK$100	100	Hong Kong	Investment holding
Hong Kong and China Gas (Zhengzhou) Limited	HK$100	100	Hong Kong	Investment holding
Hong Kong and China Power Holdings Company Limited	HK$100	100	Hong Kong	Investment holding
Hong Kong and China Power Investment Holdings Company Limited	US$1	100	British Virgin Islands	Investment holding
Hong Kong and China Water (Anhui Jiangbei) Limited	HK$100	100	Hong Kong	Investment holding
Hong Kong and China Water (Maanshan) Limited	HK$100	100	Hong Kong	Investment holding
Meter Technologies Limited	HK$100	100	Hong Kong	Investment holding
M-Tech Instrument Corporation (Holding) Limited	HK$119	100	Hong Kong	Investment holding
Sky Global Limited (carrying on business in Hong Kong as Hong Kong & China (Jilan Gas) Limited)	US$100	100	British Virgin Islands/ Hong Kong	Investment holding

Subsidiaries (Continued)

The following is a list of the principal subsidiaries as at 31st December 2021: (Continued)

	Name	Issued share capital/ registered capital	Percentage of issued/ registered capital held	Place of incorporation/ operation	Principal activity
	Investment holding (Continued)				
	TGT BROADBANDgo Company Limited	US$1	100	British Virgin Islands	Investment holding
	TGT Destic Company Limited	HK$100	100	Hong Kong	Investment holding
	TGT Fengxian Company Limited	HK$100	100	Hong Kong	Investment holding
	TGT Harbin Company Limited	HK$100	100	Hong Kong	Investment holding
	TGT Laiyang Company Limited	HK$100	100	Hong Kong	Investment holding
	TGT Peixian Company Limited	HK$100	100	Hong Kong	Investment holding
	TGT Shanghai Data Services Company Limited	HK$100	100	Hong Kong	Investment holding
	TGT Shenzhen Data Services Company Limited	HK$100	100	Hong Kong	Investment holding
	TGT Songshanhu Company Limited	HK$100	100	Hong Kong	Investment holding
	TGT TGgo Company Limited	US$1	100	British Virgin Islands	Investment holding
	Towngas – China Power (HK) Integrated Energy Company Limited	HK$100	100	Hong Kong	Investment holding
	Towngas Global Net Limited	HK$0.2	100	Cayman Islands	Investment holding
#	Towngas International Company Limited	US$1	100	British Virgin Islands/ Hong Kong	Investment holding
#	Towngas Investment Company Limited	HK$2	100	Hong Kong	Investment holding
	Towngas Renewable Energy (HK) Company Limited	HK$100	100	Hong Kong	Investment holding
	Towngas Renewable Energy Company Limited	US$1	100	British Virgin Islands	Investment holding
#	Towngas Smart Energy Company Limited	US$1	100	British Virgin Islands	Investment holding
	Towngas Telecommunications (China) Limited	US$1	100	British Virgin Islands	Investment holding
	Towngas Telecommunications Company Limited	HK$100	100	Hong Kong	Investment holding

Direct subsidiaries of the Company

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

Corporate Information

Directors
Lee Ka-kit (Chairman)
Lee Ka-shing (Chairman)
Colin Lam Ko-yin
David Li Kwok-po*
Alfred Chan Wing-kin
Poon Chung-kwong*
Peter Wong Wai-yee
Moses Cheng Mo-chi*
John Ho Hon-ming

* Independent Non-executive Director

Managing Director
Alfred Chan Wing-kin

Deputy Managing Director
Peter Wong Wai-yee

Executive Director, Chief Financial Officer and Company Secretary
John Ho Hon-ming

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

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

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

Environmental, Social and Governance Committee
Alfred Chan Wing-kin (Chairman)
Peter Wong Wai-yee
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 and
Registered Public Interest Entity Auditor
22nd Floor, Prince's Building,
Central, Hong Kong

Investor Relations
Investor Relations Department
Tel: 2963 2739
Fax: 2911 9005
e-mail: invrelation@towngas.com

Corporate Affairs Department
Tel: 2963 3493
Fax: 2516 7368
e-mail: cad@towngas.com

Company Secretarial Department
Tel: 2963 3292
Fax: 2562 6682
e-mail: compsec@towngas.com

Financial Calendar

Half-Year Results	Announced on Friday, 20th August 2021
Full-Year Results	Announced on Monday, 21st March 2022
Annual Report	Posted to Shareholders on Thursday, 21st April 2022
Register of Members	(i) To be closed from Monday, 30th May 2022 to Monday, 6th June 2022, 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 Friday, 10th June 2022 to Tuesday, 14th June 2022, for the purpose of determining Shareholders who qualify for the proposed final dividend
Annual General Meeting	To be held on Monday, 6th June 2022
Dividends – Interim	HK12 cents – Paid on Wednesday, 15th September 2021
– Final (Proposed)	HK23 cents – Payable on Wednesday, 22nd June 2022

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.

DESIGN: FORMAT LIMITED www.format.com.hk

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

MIX
Paper from responsible sources
FSC™ C023053
FSC
www.fsc.org