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

2022

Annual Report

OUR VISION

To be a leading clean and smart energy supplier, with a view to creating a sustainable world driven by green energy.

OUR MISSION

To provide our customers with safe, reliable, clean and smart energy along with quality services, while committed to fulfilling our social responsibility, ensuring sustainable business growth, enhancing our shareholders' return on investment, and bringing long-term benefit for our planet, society, and stakeholders.

CONTENTS

2022 Awards and Recognitions

The 21st Hong Kong Occupational Safety and Health Award

- OSH Enhancement Program Award – Gold Award
- OSH Innovative Award – Gold Award
- Best OSH Video Performance Award – Gold Award
- OSH Annual Report Award – Gold Award
- Safety Performance Award – Outstanding Award

Occupational Safety & Health Council

Award of Excellence 2021/2022

The Community Chest of Hong Kong

Social Capital Builder Logo Award

Community Investment and Inclusion Fund
Home and Youth Affairs Bureau

Best Corporate Governance and ESG Awards 2022

ESG Award (Hang Seng Index Category)

The Hong Kong Institute of Certified Public Accountants

Industry Cares Recognition Scheme 2022

- Outstanding Caring Awards (Enterprise Group)
- The Most Innovative Award (Enterprise Group)

Federation of Hong Kong Industries

UNSDG Achievement Awards Hong Kong 2022

- Grand Award
- Project Awards (Gold Award)
- Project Awards (Outstanding Impact)
- Organisation Awards (Sustainable Organisation – Silver)

Green Council

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

Corporate and Employee Contribution Programme 2021/22

Platinum Award

The Community Chest of Hong Kong

Junzi Corporation Award

Junzi Corporation Exemplary Award

The Hang Seng University of Hong Kong

HKACE Customer Service Excellence Award 2021

Service Leadership Award – Gold Award

Hong Kong Association for Customer Service Excellence

20 Years Plus Caring Company Logo 2021/22

The Hong Kong Council of Social Service

2022 ESG Highlights

ESG Ratings

MSCI ESG Rating 2022

A

MSCI ESG RATINGS

CCC	B	BB	BBB	A	AA	AAA

Dow Jones Sustainability Asia Pacific Index 2022

Member of
Dow Jones Sustainability Indices
Powered by the S&P Global CSA

Sustainalytics ESG Risk Ratings 2022

SUSTAINALYTICS
RATED

Medium Risk

CDP 2022

CDP
DISCLOSURE INSIGHT ACTION

Climate Change score

B

Hang Seng Corporate Sustainability Index 2022-2023

Hang Seng Corporate Sustainability Index Series Member 2022-2023

AA

ESG Partnerships

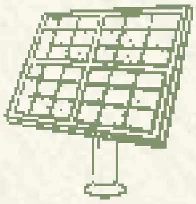
BUSINESS ENVIRONMENT COUNCIL 商界環保協會
COUNCIL MEMBER since 2003
10 years+

METHANE GUIDING PRINCIPLES

TNFD Forum Member

TCFD TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

Business Opportunity from Energy Transition



Zero-carbon Smart Industrial Park

- Over **183** renewable energy projects in 24 provincial regions
- Launched first Towngas Smart Energy ecological platform, Tera Planet, with Tencent Cloud

Hydrogen in Hong Kong

- Commissioned first hydrogen extraction pilot project to produce high purity hydrogen (99.97%)
- Assessing feasibility of supplying hydrogen fuel to buses/heavy cargo trucks
- Exploring potential of building hydrogen refuelling stations

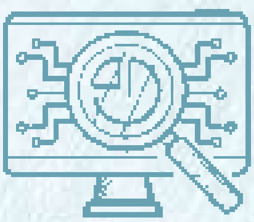
Organic Waste Resource Utilisation

- Organic waste utilisation project in Suzhou Industrial Park coverts organic waste into bio-natural gas
- Cumulatively processed approximately 500,000 tonnes of organic waste, produced 22 million cubic metres of bio-natural gas by end of 2022

Green and Sustainable Finance

- Towngas Smart Energy is the **first** energy company in Hong Kong to issue a **Sustainability-linked Bond** (US$200 million)
- **Over HK$4.5 billion** total in green and sustainable finance for the Group

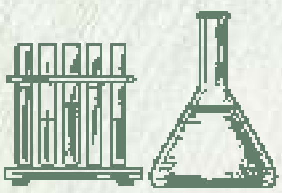
Chinese mainland's **first Zero-carbon Technology Investment Fund, worth RMB 10 billion,** was launched by Towngas and IDG Capital



Second **TERA-Award** Smart Energy Innovation Competition received **275** submissions from **41** countries and regions

Towngas Energy Academy

First Hong Kong-funded clean energy application research institute with the aim of commercialising scientific research results in the field of smart green energy



ESG Management

New ESG Strategy – ENERGY

Based on six pillars:

ESG Symposium 2022

Invited experts to share insights into ESG standards, decarbonisation strategies and roadmap to combat climate change, creation of shared value and corporate governance. Over 5,000 participants attended online and offline.

Environment

Carbon Neutrality Commitment

Two intermediate targets by 2025:

- Reduce group operational GHG emissions by **10%** (2020 baseline)
- Reduce **10 million tonnes** of GHG emissions in the environment per year through coal-to-gas, solar photovoltaic power generation, and energy efficiency improvement projects, among others

Climate- and Nature-related Directive Guide

- **First** Hong Kong company that responded to the Task Force for Nature-related Financial Disclosures (TNFD) framework evaluating **biodiversity risk**
- Disclosed climate-related financial information in alignment with Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD)

Methane Emissions Reduction

Completed pipeline leakage study and concluded the leakage rate from our pipeline is between the range of **0.045-0.13%**

First Carbon Neutral Voyage

First carbon neutral voyage of naphtha from Australia to Hong Kong, with 1,300 tCO_2e offset by a REDD+ project

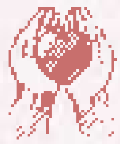
Town Gas Production

- Carbon intensity of **0.576** kg CO_2e/unit of town gas, reduced by **25%** compared with 2005
- Around **1% landfill gas** in town gas fuel mix

Social

Caring for the Community

- **HK$25 million** Towngas Concession Scheme benefitted over **43,000** households
- **HK$10 million** Dining Coupon Scheme benefitted approximately **50,000 households** during the epidemic
- Volunteer service hours:
  9,239 (Hong Kong)
  584,329 (Mainland Utilities)



Diversity and Inclusion

Hong Kong:

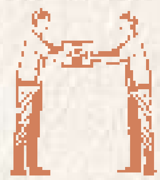
- Gender pay ratio (basic salary): **1:1**
- **25%** of managerial employees were female
- **14** people with disabilities hired
- **17** non-local employees hired

Health and Safety

- **834,799** regular safety inspections for customers (Hong Kong)
- Developed the **Smart Controller** that connects existing cooking appliances with mobile phones for better customer safety
- Group lost-time injury frequency rate:
  employees: **0.53** contractors: **0.14**
  accident per 1,000,000 work-hours
- Network leaks reported by the public per 10km of gas pipes decreased **7%** in last 10 years

Resilient Supply Chain

- Adopted the **S-Carbon Platform** to manage GHG emissions from our supply chain in Hong Kong operations
  – First Asian public utility to work with SGS and Microsoft Hong Kong on the platform
- Over **90%** of suppliers[1] were assessed on CSR performance. No significant negative impact found



[1] Based on the total purchase value of products and materials.

Governance

ESG-linked Compensation

Variable compensations of the Managing Director and senior executives are linked to material ESG issues, including climate change, health and safety, workplace diversity, etc.

Business Integrity

Provided anti-corruption training to the Board

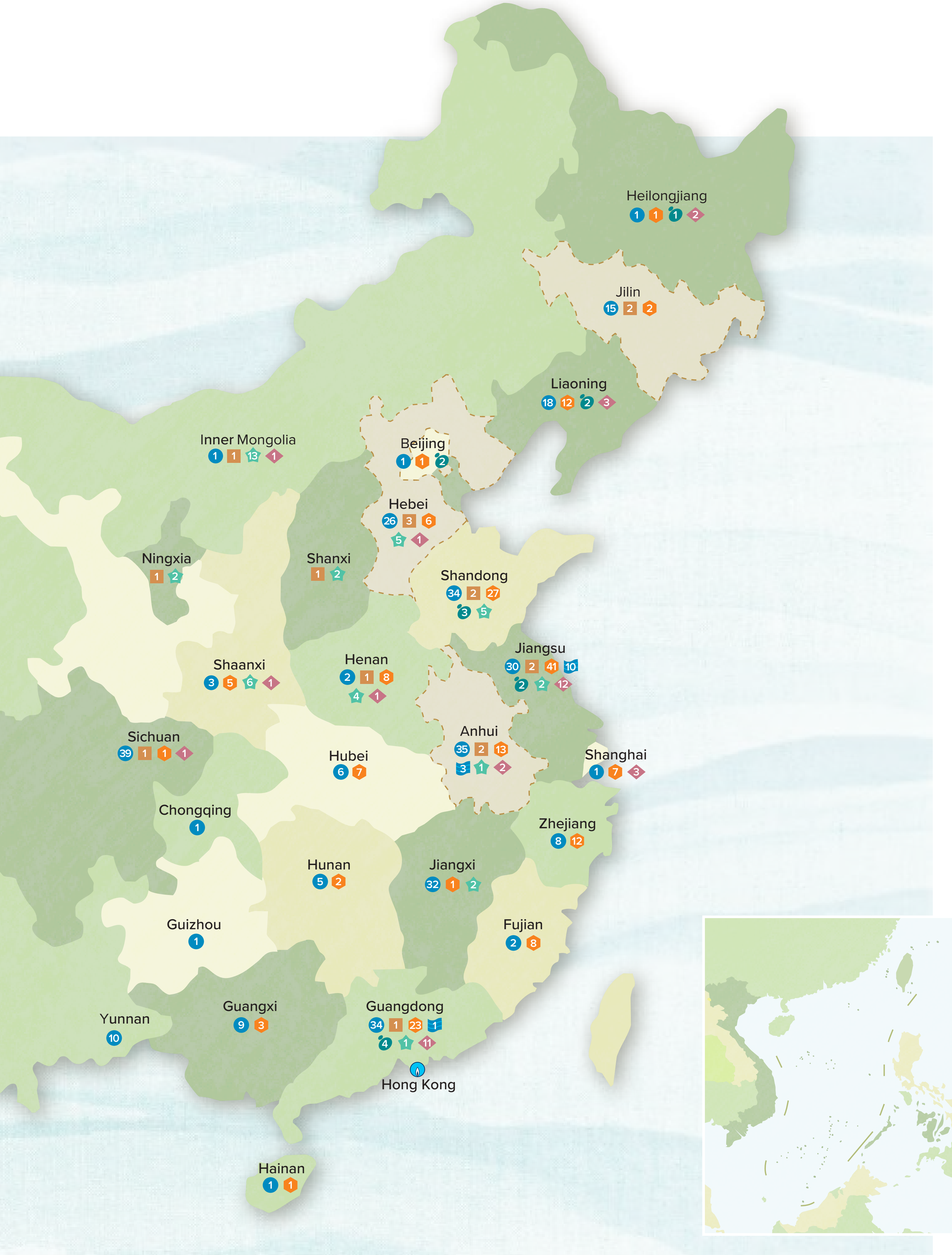
2022 Business Coverage

Based in Hong Kong,
Towngas has a portfolio comprising

624 PROJECTS *

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

*2021 year end: 514 projects, inclusive of city-gas projects re-invested by the Group's companies



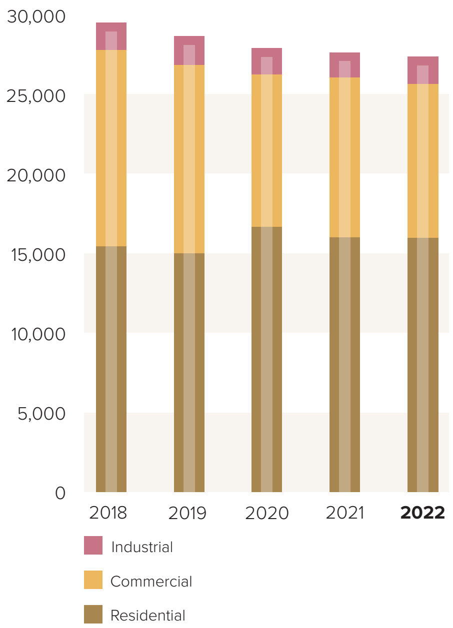
Heilongjiang
1 1 1 2
Jilin
15 2 2
Liaoning
18 12 2 3
Inner Mongolia
1 1 13 1
Beijing
1 1 2
Hebei
26 3 6
5 1
Ningxia
1 2
Shanxi
1 2
Shandong
34 2 27
3 5
Shaanxi
3 5 6 1
Henan
2 1 8
4 1
Jiangsu
30 2 41 10
2 2 12
Sichuan
39 1 1 1
Anhui
35 2 13
3 1 2
Hubei
6 7
Shanghai
1 7 3
Chongqing
1
Zhejiang
8 12
Hunan
5 2
Jiangxi
32 1 2
Guizhou
1
Fujian
2 8
Guangxi
9 3
Guangdong
34 1 23 1
4 1 11
Yunnan
10
Hong Kong
Hainan
1 1

Business Highlights

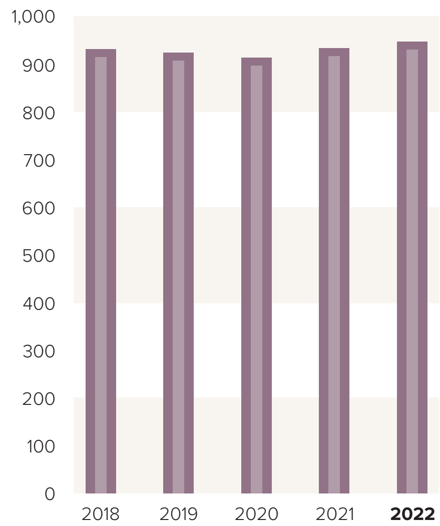
	2022	2021	Change %
OPERATING (COMPANY)			
Number of Customers as at 31st December	**1,995,082**	1,964,937	+2
Number of Customers per km of Mains	**576**	569	+1
Installed Capacity, thousand m^3 per hour	**534**	534	–
Peak Hourly Demand, thousand m^3	**546**	557	-2
Town Gas Sales, million MJ	**27,398**	27,677	-1
Number of Employees as at 31st December	**2,110**	2,106	–
Number of Customers per Employee	**946**	933	+1
FINANCIAL			
Revenue, HK million dollars	**60,953**	53,564	+14
Profit Attributable to Shareholders, HK million dollars	**5,248**	5,017	+5
Dividends, HK million dollars	**6,531**	6,531	–
SHAREHOLDERS			
Issued Shares, million of shares	**18,660**	18,660	–
Shareholders' Funds, HK million dollars	**61,228**	67,426	-9
Basic Earnings per Share, HK cents	**28.1**	26.9	+4
Diluted Earnings per Share, HK cents	**26.3**	26.9	-2
Dividends per Share, HK cents	**35.0**	35.0	–
Shareholders' Funds, HK dollars per share	**3.28**	3.61	-9
Number of Shareholders as at 31st December	**13,493**	13,680	-1

Five-Year Summary

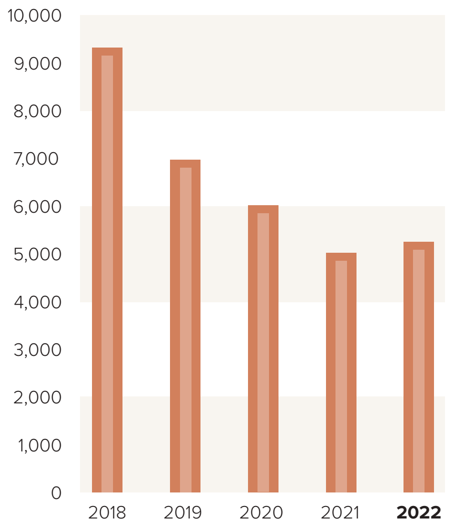
Town Gas Sales
Company (million MJ)



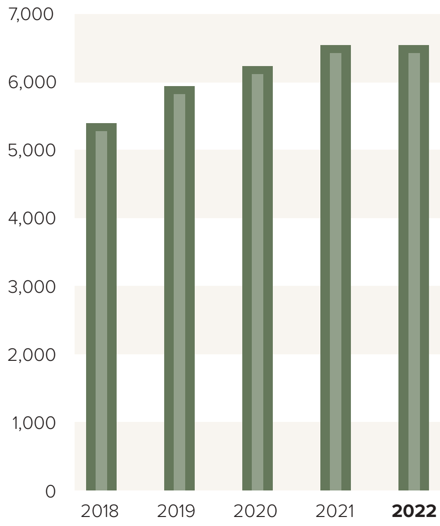
Number of Customers per Employee
Company



Profit Attributable to Shareholders
(HK$ million)



Dividends
(HK$ million)



Chairmen's Statement

"In order to turn imagination into reality, we safeguard the planet for future generations and allow our stakeholders' interests to drive our work."

– Dr. Lee Ka-kit

"We will continue to inject innovation into all our future developments, hand in hand with preserving the environment."

– Dr. Lee Ka-shing

The year 2022 marked the 160th anniversary of Towngas. After more than a century and a half of hard work marching forward under all circumstances, this century-old brand in Hong Kong is still full of vitality, heading to the future with much confidence and expectations. A century-old record with flourishing results is hard-won. On behalf of the board of directors of the Company, we would like to express our sincere gratitude to every dedicated and hard-working employee of the Group, every long-term and loyal customer, and every shareholder and investor. The support and enthusiasm from different sectors of the society give us the strength to pursue sustainable development.

During the year, the Group held a series of activities to celebrate its 160th anniversary. We were honoured to have Mr. John Lee Ka-chiu, the Chief Executive of the Hong Kong Special Administrative Region ("HKSAR"), as the officiating guest at the anniversary ceremony held on 12th August 2022 and to share our joy with different sectors of the society. Towngas will continue to uphold the spirit of providing competent, safe and customer-oriented high-quality services, actively participate in the development of our country and the HKSAR, and strive to promote a sustainable future.

Clean energy has always been a focus of the Group's business development. Over the years, we have been committed to the vision of safeguarding environmental resources for future generations while taking our stakeholders' interests into account. This vision has driven us to work tirelessly on our way forward. The country's "30-60 dual carbon goals" and "Hong Kong's Climate Action Plan 2050" provide great opportunities for the development of clean energy, and broaden the prospects of the Group's development. In the future, energy consumption will become cleaner and more environmentally friendly at a faster pace. To this end, the Group has set clear goals to move towards green and sustainable development.

We will continue to inject innovation into all our future developments, hand in hand with preserving the environment. We will keep abreast of technological changes in the process of energy transformation, increase our efforts to find innovative technologies and solutions, and strive to capitalise on the power of technological wisdom to create excellence and add value for all stakeholders, with a strong belief that the Group's development prospects are bright.

The Year's Results

Although the global economic growth slowed last year due to the impact of the COVID-19 pandemic and geopolitics, coupled with soaring interest rates and rising energy prices, which brought challenges to business operations, the Group's overall volume of gas sales remained stable during the year amid a continuously adverse business environment. This was attributable to our staff's dedication and hard work together, accurate seizure of market opportunities, increasing efforts to broaden sources of revenue and cut expenditure, as well as relevant policy support for various businesses from local governments. During the year, the Group endeavoured to increase its capability of having independent gas sources to alleviate the impact of soaring upstream gas prices on reducing unit gross profit, so as to strive for maximising benefit for shareholders and investors. In addition, renewable energy projects are expanding steadily, driving the sustainable development of the Group's business.

Profit after taxation attributable to shareholders of the Group for the year amounted to HK$5,248 million, an increase of HK$231 million, up by approximately 5 per cent, compared to 2021. Basic earnings per share for the year amounted to HK28.1 cents.

During the year under review, the Group invested HK$8,321 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.

Town Gas Business in Hong Kong

The Company has been committed to providing the society with a low-cost, safe, stable, clean and environmentally-friendly town gas supply for 160 years. With a farsighted vision, the Company signed a 25-year long-term agreement with an Australian natural gas supplier in 2003, and fixed the gas price at a level equivalent to US$25 per barrel of crude oil. Since the commencement of this gas supply in 2006, this prospective move has saved town gas customers over HK$20 billion in fuel costs to date. Therefore, even when international natural gas prices have been rising sharply recently, Hong Kong citizens can still enjoy an economical, stable, and reliable supply of town gas, without having to suffer from sharp price adjustments, and the Company's gas business in Hong Kong also remains stable.

Overall, the total volume of gas sales in Hong Kong for 2022 was approximately 27,398 million MJ, a decrease of 1 per cent, in contrast to an approximately 4 per cent increase in the number of appliances sold, both compared to 2021. As at 31st December 2022, the number of customers of the Company was 1,995,082, an increase of 30,145, representing an increase of approximately 2 per cent compared to the number at the end of 2021.

To respond to the fluctuating epidemic situation in Hong Kong during the year, the Group launched the Towngas Dining Coupon Scheme to support the underprivileged and boost local consumption. On the other hand, to help tackle the fifth wave of the epidemic in Hong Kong, the Towngas team constructed a 1.5-kilometre town gas pipeline in only four days in February 2022 for the Lok Ma Chau Loop makeshift hospital, fully demonstrating the Group's resilience of unity, strong technical ability and efficient execution.

The Group has also stepped up its efforts to promote the application of artificial intelligence (AI) technology in various departments, including answering customer inquiries through the chat robot Tinny, along with the Gas Riser Artificial Intelligence System that helps reduce complicated procedures and enhance efficiency. In addition, the concept of the Internet of Things ("IoT") has been added to the self-developed smart controllers and gas meters so as to further ensure gas safety and improve customer experience.

Businesses on the Chinese Mainland

The Chinese mainland is the major market for the Group's business expansion, as the Group has established sizeable customer resources and business networks with a solid foundation there since 1994. In the future, the Group will continue to focus on city-gas as its core business, accelerate the application of renewable energy in large-scale industrial parks, and at the same time expand sewage and environmental and sanitary waste treatment, engineering and extended businesses to release the hidden value in the principal businesses and create synergy.

The provision of people-oriented and value-added services is our business philosophy. Apart from the supply of energy and construction of energy facilities, we focus even more on understanding customer needs and providing services exceeding customer expectations. In respect of the city-gas business, the Group is expanding its extended businesses to provide customers with one-stop quality services under the theme of "Smart Kitchen", including safety management, maintenance and fee payment, smart control, online shopping, and door-to-door services. As for smart energy management, the Group is providing customers with integrated energy solutions and a well-established energy and carbon service platform, contributing profits to both customers and the Group.

The Group's mainland businesses progressed steadily during the year. Overall, including the projects of the Group's subsidiary, Towngas Smart Energy Company Limited ("Towngas Smart Energy"; stock code: 1083.HK), the Group had 624 projects (inclusive of city-gas projects re-invested by the Group's companies) (2021 year end: 514 projects) on the Chinese mainland as at the end of 2022, spread across 28 provincial regions.

Utility Businesses

The Group's utility businesses recorded stable growth during the year, with an increase in the volume of gas sales and water sales compared to 2021.

As at the end of 2022, inclusive of Towngas Smart Energy, the Group had a total of 315 city-gas projects on the Chinese mainland (inclusive of city-gas projects re-invested by the Group's companies) (2021 year end: 303 projects). The total volume of gas sales for these projects for 2022 was approximately 32,100 million cubic metres, an increase of approximately 3 per cent compared to 2021. As at the end of December 2022, the Group's mainland gas customers stood at approximately 37.29 million, an increase of approximately 6 per cent compared to 2021.

During the year, the Group continued to actively seize market opportunities, stabilise business growth, and focus on targeting large-scale industrial users and new energy industrial customers, such as applying photovoltaics in glass and lithium battery production in particular. The Group launched the "gas + thermal energy" business during the year, transforming from mainly supplying gas to also providing integrated energy solutions. By helping customers improve their energy structure, enhancing efficiency, and promoting the low-carbon and intelligent transformation of industrial energy, the Group's gas business can be consolidated and enhanced, and its gross profit contribution will also increase.

In the context of high energy prices, the Group's strategy of having independent gas sources becomes increasingly important. The Group established a gas source operation centre during the year to enhance the flexibility of gas sources through the Group's projects, including the liquefied natural gas ("LNG") receiving terminal in Dapeng, Shenzhen, coalbed methane liquefaction project in Shanxi, LNG project in Ningxia, gas storage facility in Jintan, storage tank project in Caofeidian, and shale gas liquefaction plant in Sichuan. Along with the strategic cooperation with PipeChina to promote the interconnection of provincial pipelines, as well as coordinate and make good use of gas source procurement, the Group can increase its capability of owning independent gas sources and reduce costs, thereby improving the gross profit of its gas business.

During the year, two new gas wells invested in and developed by the Group were commissioned in the underground gas storage facility in Jintan district, Changzhou, Jiangsu province. Following the connection with the national pipeline network and then the implementation of interconnection with the pipeline network in Jiangsu province, the gas operating capacity increased to 277 million cubic metres, thus further expanding the peak-shaving capability and commercial coverage in eastern China. Furthermore, the Group invested in an LNG receiving terminal project at Caofeidian, Tangshan, Hebei province, which comprises 20 storage tanks of 200,000 cubic metres each and two berths for LNG carriers for the whole project. The unloading capacity of the project will eventually reach 20 million tonnes per annum, and it is expected to be commissioned in 2023. Besides, part of the production capacity of the shale gas liquefaction plant in Weiyuan county, Sichuan province, will also be completed and commissioned in 2023.

The Group's water business recorded stable growth during the year, with the volume of water sales increasing by approximately 3 per cent, and the volume of sewage treatment increasing by approximately 10 per cent, both compared to 2021. The Group's urban organic waste utilisation project in Suzhou Industrial Park, Jiangsu province, has cumulatively processed approximately 500,000 tonnes of organic waste and produced 22 million cubic metres of bio-natural gas for the park's use. Environmental and sanitary integration in Wujin district, Changzhou, Jiangsu province, is progressing. The sewage treatment project in Wujin High-Tech Industry Development Zone will be commissioned in the third quarter of 2023. Besides, preliminary work for the construction of a domestic waste incineration project in Jiashan and a domestic waste transfer station in Wujin district have also commenced.

Renewable Energy Business

Driven by the country's "dual carbon" goals, there is a strong demand for renewable energy on the Chinese mainland, and the related market is growing rapidly. The Group has officially launched integrated smart energy projects since 2016, focusing on zero carbon in its business development. As at the end of 2022, the Group had 183 renewable energy projects spread across 24 provincial regions. These projects encompass multi-energy supply (cooling, heating, electricity), photovoltaics, energy storage, charging and swapping power stations, and integrated energy services for industrial and commercial customers.

Currently, the Chinese mainland is still gradually shifting the focus of energy use from fossil fuels to renewable energy. Efficient and clean natural gas will continue to play an important role. It is expected that the promotion and application of energy projects and improvement of efficiency in the industrial sector, which is the focus of energy conservation and carbon reduction, will continue to deepen and integrate with new energy. Therefore, the Group will focus on assisting the country's eight major emission control industries, including electricity, steel, non-ferrous metals, petrochemicals, building materials, chemicals, papermaking and aviation, by providing them with energy-saving and emission-reducing solutions, and the installation of distributed photovoltaic systems, in order to help enterprises enhance energy efficiency. In the long term, this can promote the transformation and upgrading of the industries and help the country achieve its "dual carbon" goals.

During the year, the Group and IDG Capital launched a zero-carbon technology investment fund with a total scale of RMB10 billion to provide financial support to innovative and start-up firms in the field of zero-carbon technology. The Group also deploys its great number of application scenarios to accelerate the implementation of innovative products and technologies.

The TERA-Award smart energy innovation competition, jointly launched by the Group and State Power Investment Corporation Limited, was held for the second time in 2022, anticipating to find excellent innovative technologies and solutions in the smart energy field and help implement start-up projects, and accelerate the application of smart energy innovative technologies into practical use.

Extended Businesses

Listening to and understanding people's needs in daily life, integrating innovative concepts, and forecasting future lifestyles, we use creativity and technology to explore more possibilities in every detail. To this end, the Group's extended businesses are constantly meeting customer requirements, and extending and exploring more possibilities for business development.

During the year, the Group reorganised and upgraded its extended businesses, with "Towngas Lifestyle" as the main brand, and provided one-stop services for more than 37 million household users of the Group via the "Smart Kitchen". Its Internet service platform, Towngas Lifestyle Cloud (TLC), has approximately 15 million members. Besides, the Group's business of the "Bauhinia" brand increased its accessibility for customers by introducing pooled resources, upgrading its products and integrating sales channels, while also empowering its business with digital tools to achieve growth in the number of appliances sold.

During the year, the Group established strategic partnerships with a number of renowned brands in the industry, including the cooperation with Vaillant, a German brand, on promoting "comfortable living" and launching products such as floor heating and ventilation system to meet customers' diverse needs. Besides, through the cooperation with Accenture, Towngas Lifestyle's digital capabilities and talent development were enhanced, thus promoting the development of its business to meticulousness and high quality.

The security chip "TGSE CHIP", jointly developed by Towngas Lifestyle, StarFive and ChinaFive, was officially launched during the year. It is the first RISC-V IoT security chip in the industry to strengthen data security of the "Smart Kitchen" related equipment; its cost is expected to be further reduced. This also marks a key step in the use of independently controllable chips in the digital infrastructure of the energy industry.

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 amounted to HK$965 million, a decrease of approximately 23 per cent compared to 2021. As at the end of 2022, the Group held approximately 2,163 million shares in Towngas Smart Energy, representing approximately 66.36 per cent of Towngas Smart Energy's total issued shares.

Towngas Smart Energy added 119 new projects to its portfolio during 2022, comprising 111 renewable energy projects, 7 piped-gas projects and one other project. The total number of projects held by Towngas Smart Energy was 363 as at the end of 2022.

In order to achieve the "dual carbon" goals, the country released a series of policies to promote the use of clean energy and energy-saving transformation in various industries during the year. Complementarity, joint supply and integration of multi-energy will be the long-term trend of the country's energy utilisation. The integrated development of natural gas and new energy, combined with electricity and heat as a multi-energy supply, is not only clean and low-carbon, but also contributes to the safety and stability of the new energy supply system. Towngas Smart Energy continues to adopt the strategy of parallel development both in the city-gas and renewable energy sectors, and strengthens the provision of integrated energy services for customers.

A Towngas Smart Energy ecological platform, Tera Planet, was jointly developed with Tencent Cloud in April 2022. Based on the IoT capabilities, the platform helps customers realise intelligent management, analysis, prediction and optimisation of energy data. At present, the Towngas Smart Energy ecological platform has been put into commercial application for the first time in Hailing district, Taizhou, Jiangsu province. It is estimated that hundreds of thousands tonnes of carbon emissions can be reduced every year after the project is fully completed.

Focusing on strengthening the research and development of innovative energy technologies, the Group established Towngas Energy Academy in August 2022 and invited fellows, outstanding young persons and other experts to set up an expert committee to conduct specific research in five major fields encompassing energy storage, hydrogen energy, energy digital intelligence, renewable energy, and low-carbon energy saving. With the trend of rapid development of clean energy in the future, these innovative technologies and solutions will rejuvenate the traditional energy industry and inject new vitality into the Group's businesses.

Environmental, Social and Governance

The Group has been actively promoting environmental, social and governance ("ESG") work and integrating ESG elements into its business operations.

2022 was an outstanding milestone full of recognition of our continued efforts on ESG. During the year, the Group was listed in the Dow Jones Sustainability Asia Pacific Index for the first time, and its ESG ratings were improved by several international rating agencies – including the MSCI ESG Rating, by which the Company and Towngas Smart Energy were both upgraded to "A". According to the ESG Ratings Reports, MSCI ESG Research recognised the Company's progress in carbon reduction, and Towngas Smart Energy's outstanding performance in health and safety practices. At the local level, the Group was included in the Hang Seng Corporate Sustainability Index for the 12th consecutive year. The Company placed first again and was designated "Exemplar" in the Greater China Business Sustainability Index ("BSI"), Greater Bay Area BSI and Hong Kong BSI. These external party ratings acknowledge the ESG progress made by the Group.

To drive collaboration on ESG-related topics, the Group hosted the first large-scale, business-initiated ESG Symposium in Hong Kong to discuss the three "E, S, G" topics. Guests from across political, business and academic fields were invited to share their insights, as well as analyse new international and local ESG trends to further promote ESG in the community. The hybrid event attracted over 5,000 participants. The Group is also the first Hong Kong company to publish the Climate-related and Nature-related Directive Guide ("Guide") in response to the Taskforce on Nature-related Financial Disclosures (TNFD) framework to review and disclose the ecological and biodiversity impacts, as well as the risks and opportunities arising from the operations of the Group, and develop actions to reduce the Group's impacts on the environment. The Guide also further aligned with the Recommendations of the Task Force on Climate-related Financial Disclosures ("TCFD") by disclosing financial information related to the potential opportunities and risks led by climate change.

The Group is committed to becoming carbon neutral through energy transition and innovation, and has set two medium-term targets to be achieved by 2025 – to reduce group operational greenhouse gas ("GHG") emissions by 10 per cent (i.e. reduce 140,000 tCO2e compared to 2020 baseline), and reduce 10 million tonnes of GHG emissions in the environment per year through coal-to-gas, solar photovoltaic power generation, and energy efficiency improvement projects, among others. The Group's decarbonisation strategy includes utilising renewable and landfill gas, improving energy efficiency and developing low-carbon solutions for customers.

The Group actively contributes to environmental protection and became a supporter of TCFD, signatories of the Methane Guiding Principles partnership, China Oil and Gas Methane Alliance, and joined Climate Governance Initiatives in Hong Kong as the founding member.

The Group issued its inaugural green bond in 2017, and the proceeds from the bond were invested in the Group's waste-to-energy projects. In 2022, Towngas Smart Energy issued its inaugural Sustainability-Linked Bond with a total of US$200 million, and set two sustainability performance targets demonstrating the Group's commitment to addressing climate change.

The Group also drives the development of voluntary carbon trading and a low-carbon economy in Hong Kong through its support of Core Climate, a new international carbon marketplace initiated by Hong Kong Exchanges and Clearing Limited. The Group is one of the first users to complete a carbon trade on the platform.

In the social dimension, the top priority is to create positive impacts for employees, customers and the community. The Group developed the Smart Controller, which allows the monitoring of gas appliances' status remotely through a mobile app, and is particularly handy for the elderly with mild cognitive impairment. The Group also launched the Dining Coupon Scheme to support the underprivileged and the catering industry impacted by the epidemic. The Group is building a resilient workforce by providing a safe and healthy workplace and nurturing the next generation of talent; the Company also promotes diversity and inclusion, demonstrated by a 1:1 gender pay ratio of basic salary.

In the area of governance, the variable compensations of the Managing Director and Senior Executives are linked to material ESG issues, including climate change, while additional performance bonuses are provided to encourage employees to implement ESG excellence projects and initiatives. This affirms the Group's commitment to ESG issues and driving performance improvement.

The Group will continue to improve its ESG performance in accordance with the newly established ESG Strategy "ENERGY" with six pillars: **E**nergising the Ecosystem, **N**eutralising our Footprint, **E**ngaging with Society, **R**evitalising our Strengths, **G**reening the Future and **Y**oung-at-heart with Resilience, enhancing corporate operations and business development.

Final Dividend

The Directors are pleased to recommend a final dividend of HK23 cents per share payable to shareholders whose names are on the Register of Members of the Company as at 15th June 2023. Including the interim dividend of HK12 cents per share paid on 15th September 2022, the total dividend payout for the whole year shall be HK35 cents per share.

Barring any unforeseen circumstances, the forecast dividends per share for 2023 shall not be less than the interim and final dividends for 2022.

Business Outlook for 2023

Hong Kong's economy has been significantly impacted by the epidemic, which has been raging for three years. Nevertheless, following the resumption of social activities to normality in an orderly manner and quarantine-free travel with the Chinese mainland and overseas since early 2023, both inbound and outbound travelling have been increasing swiftly, helping to drive economic recovery. As a result, the catering and tourism sectors will regain momentum. The town gas business in Hong Kong is expected to have more optimistic growth.

The Group will also pay attention to and align with the "Long-Term Housing Strategy" of the Government of the HKSAR to prepare well for the city's future expansion, including the development of the Northern Metropolis and the "Lantau Tomorrow" project. The Group predicts that steady growth in its number of gas customers that comes along with urban development in Hong Kong will last for some time into the future.

Hong Kong is striving to achieve carbon neutrality by 2050, and the development of sustainable green energy is an important step in eliminating carbon emissions. Hydrogen constitutes approximately half of the composition of town gas supplied by the Group in Hong Kong.

With the Company's existing gas pipeline network reaching virtually everywhere in Hong Kong, installation of hydrogen extraction systems on the client side is a low-cost, safe and efficient hydrogen energy supply solution suitable for Hong Kong. The Group will make good use of its underground pipelines of 3,700 kilometres, and work actively with the Government of the HKSAR to formulate future regulations and standards for the hydrogen energy industry, in order to supply safe and reliable hydrogen energy to related energy-using enterprises shortly.

In respect of mainland businesses, the Group's annual volume of gas sales has exceeded 32 billion cubic metres currently. Benefiting from the country's ongoing promotion of urbanisation and unremitting efforts in advocating national environmental protection policies, the city-gas business has favourable factors and broad room for business development. The number of the Group's new customers on the Chinese mainland exceeds 2 million annually, which is equivalent to a customer base of adding "one more Hong Kong" every year. Coupled with the country's increasing efforts to "expand domestic demand and promote sales", the Group's volume of gas sales and the number of customers are expected to increase significantly in 2023, and this ideal momentum will last for some time into the future.

The Group's smart energy business progressed rapidly in 2022. Given the Group's approximately 400,000 industrial and commercial customers, 50,000 employees and large-capacity energy storage technology, the development of zero-carbon smart industrial parks and photovoltaic projects has begun to take shape. The Group will continue to promote the development of these projects in line with the trend of green energy development, and strengthen and improve customer-centred comprehensive energy and carbon management services. In addition, the Group will strengthen its innovation and scientific research to maintain the core competitiveness of its businesses. The Group has set a target to provide smart energy solutions to 200 industrial parks on the Chinese mainland by 2025.

Under the favourable "Healthy China" policy, there are numerous possibilities for the Group's extended businesses, which will be based on households and kitchens, adding two elements of warmth and low carbon in the future. The business will lay out integrated management of comfort and health, provide more products and services for daily life on top of gas supply, convey the concept of a low-carbon green and healthy lifestyle to customers, and at the same time, implement data sharing, improve efficiency, and reduce manpower costs, thus bringing convenient and efficient gas services to customers.

The Group is actively studying and exploring the integration and utilisation of natural gas and hydrogen energy, promoting the demonstration and application of hydrogen doping in natural gas pipelines in Shandong province, and studying the feasibility of upgrading existing natural gas refilling stations to gas and hydrogen refilling stations in Guangdong and Jiangsu provinces and other places. In addition, the Group has carried out relevant work on the feasibility of using the underground gas storage facility for hydrogen storage.

2022 marked the 25th anniversary of Hong Kong's return to the motherland and the 160th anniversary of the Company's foundation. Looking forward, the Group will leverage the power of technological innovation with a brand-new look to "ignite" greater aspirations and contributions on a new track.

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

Hong Kong, 17th March 2023

Board of Directors

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

Aged 59. 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, a subsidiary of the Company, with effect from 25th October 2021. 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 69 of this Annual Report for details). Dr. Lee is a Member of the Standing Committee of the 14th 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.

John Ho Hon-ming **Andrew Fung Hau-chung** **Moses Cheng Mo-chi** **David Li Kwok-po** **Lee Ka-kit**
Chairman

Dr. Lee Ka-shing

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

Chairman & Non-executive Director

Aged 51. 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 69 of this Annual Report for details). He is a member of the Court of The University of Hong Kong, the Court of The Hong Kong Polytechnic University and 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 Member of the 14th Beijing Municipal 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.

Lee Ka-shing
Chairman

Poon Chung-kwong

Colin Lam Ko-yin

Peter Wong Wai-yee

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 71. Dr. Lam was appointed to the Board of Directors of the Company in 1983. He has more than 49 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 69 of this Annual Report for details).

Mr. Andrew Fung Hau-chung

BBS, JP, BA,

Non-executive Director

Aged 65. Mr. Fung was appointed to the Board of Directors of the Company in June 2022. Mr. Fung is an Executive Director and the Chief Financial Officer of Henderson Land Development Company Limited ("Henderson Land Development"), a controlling shareholder of the Company and the shares of which are listed on the Main Board of The Stock Exchange of Hong Kong Limited (the "Stock Exchange"). He holds the Bachelor of Arts Degree from The University of Hong Kong and the Honorary Fellowship awarded by Lingnan University. Mr. Fung served as an executive director and the Head of Global Banking and Markets of Hang Seng Bank Limited, a listed company on the Main Board of the Stock Exchange, before he stepped down from such positions in July 2017. He has been engaged in the banking industry since graduation, serving at Societe Generale, The Hongkong and Shanghai Banking Corporation Limited, Commonwealth Bank of Australia, Hong Kong Branch and DBS Bank (Hong Kong) Limited. He has 41 years of experience in banking, capital markets and asset management. He is the Professor of Practice (Finance) in the School of Accounting and Finance of The Hong Kong Polytechnic University, the Adjunct Professor of The Hang Seng University of Hong Kong and a member of the school management committee of Buddhist Tai Hung College. Mr. Fung is currently the chairman of the Hospital Governing Committee of Pamela Youde Nethersole Eastern Hospital, a member of the Court of The University of Hong Kong, a trustee of The D.H. Chen Foundation, a member of the Cantonese Opera Advisory Committee, a member of the Cantonese Opera Development Fund Advisory Committee and a member of the Banking Review Tribunal. Mr. Fung had previously been a board member of the Hospital Authority, a board member of the Airport Authority Hong Kong, a director of The Hong Kong Mortgage Corporation Limited, an associate member of the Central Policy Unit of the Government of the Hong Kong Special Administrative Region, a lay council member of the Hong Kong Institute of Certified Public Accountants and a client representative director of OTC Clearing Hong Kong Limited.

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 84. 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 Territory, 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 83. 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 69 of this Annual Report for details). Prof. Poon was appointed as a Justice of the Peace in 1989 and received the OBE award in 1991, the Gold Bauhinia Star award in 2002 and also the "Leader of the Year Awards 2008 (Education)". In addition, he was appointed as a member of the Legislative Council (1985-1991) and a member of the National Committee of the Chinese People's Political Consultative Conference (1998-2013). Prof. Poon obtained a Bachelor of Science (Honours) Degree from The University of Hong Kong, a Doctor of Philosophy Degree and a Higher Doctor of Science Degree from the University of London. He was a Postdoctoral Fellow at the California Institute of Technology, University of Southern California and University of Toronto. He also held the Honorary Degree of Doctor of Humanities from The Hong Kong Polytechnic University in 2009.

Dr. the Hon. Moses Cheng Mo-chi

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

Independent Non-executive Director

Aged 73. Dr. Cheng was appointed to the Board of Directors of the Company in January 2019. Dr. Cheng is a practising solicitor and the senior consultant of Messrs. P.C. Woo & Co. after serving as its senior partner and consultant from 1994 to January 2023. Dr. Cheng was a member of the Legislative Council of Hong Kong. He is a non-official member of the Executive Council of the Hong Kong Special Administrative Region since 1st July 2022. Dr. Cheng was the founder Chairman of the Insurance Authority and 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, a subsidiary of the Company, since May 2007. He also currently holds directorships in 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 an independent non-executive director of China Mobile Limited and China Resources Beer (Holdings) Company Limited.

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.,
Managing Director

Aged 71. 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 as Deputy Managing Director of the Company in April 2021, and has been Managing Director with effect from 6th June 2022. 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 and a director of Shenzhen Gas Corporation Ltd. ("Shenzhen Gas"), and was appointed as the Vice Chairman of Shenzhen Gas with effect from 26th April 2022. Mr. Wong was appointed as a director of Foran Energy Group Co., Ltd. ("Foran Energy") with effect from 8th April 2022 and was appointed as the Vice Chairman of Foran Energy with effect from 29th December 2022. He was previously 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 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 and chartered governance professional 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, a member of the Advisory Board of the Department of Accounting of Hong Kong Shue Yan University, and a member of the Mainland Business Advisory Committee of the Hong Kong Trade Development Council. He is a Council Member of the Vocational Training Council, a Council Member of the Employers' Federation of Hong Kong, and 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 46 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 66. 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 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 a member of the Accountancy Training Board of the Vocational Training Council. 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 44 years of experience in accounting, corporate finance and investments.

Executive Committee

from left to right

Martin Kee Wai-ngai
Chief Operating Officer – Mainland Utilities

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

Alan Chan Ying-lung
Chief Investment Officer

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

Peter Wong Wai-yee
Managing Director

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

John Qiu Jian-hang
Chief Operating Officer – Renewable Business

Lam Ming-wing
Head of Corporate Human Resources and Head of Corporate Safety and Environment

REVIEW OF OPERATIONS

HONG KONG BUSINESSES

As we celebrated our 160th anniversary in 2022, we overcame the challenges of the difficult business environment. We not only provided customers with new ways to conserve energy and reduce their carbon emissions, but also extended a helping hand to those affected by the epidemic with programmes that provide relief to struggling restaurants, food processing plants, hotels and hospitals.

Resilience in a Year of Continuing Challenges

In 2022, tight social distancing measures to contain the epidemic remained in effect. As a result, GDP for the year contracted by 3.5 per cent, despite the gradual relaxation of these measures towards the end of 2022. Total gas sales dropped slightly by 1 per cent compared to 2021, while customer accounts rose to over 1.99 million.

Our Commercial and Industrial (C&I) customers, particularly hotels and catering services, faced a challenging business environment at the start of the year due to the citywide lockdown that closed off inbound tourism.

During this period, some boosts to gas sales were provided through the Community Isolation Facility Hotel Scheme and Designated Hotels for Quarantine Scheme, while aviation catering businesses turned to other catering services.

Town gas hot water boilers provide stable hot water supply for the brand-new Regala Skycity Hotel.

Town gas hot water boilers installed by Tai Po Tung Cheong Street Leisure Building achieved significant reductions in maintenance costs and soot.

For our part, we continuously monitored the business environment and launched a variety of programmes to assist C&I customers in need. Among these were promotions to help new small- and medium-sized restaurants get started and our Credit Period Extension Scheme for the Catering Industry in support of local catering operators.

The picture looked less gloomy as travel restrictions were progressively lifted and social activities such as international conferences and events resumed. As we entered the third quarter of 2022, our gas business began to recover as more restaurants were fully opened for business, flights resumed and tourist arrivals slowly picked up. Moreover, hotels and aviation-related services such as flight catering and commercial laundry businesses revived.

With this gradual return to normal, we believe our business prospects for 2023 look much brighter as Hong Kong reopens its border to visitors from the Chinese mainland and overseas.

Tariff adjustment

For the first time in three years, Towngas raised its basic tariff after delaying the increase by one year owing to the epidemic. The increase was necessary as operating costs, including materials and staff expenses, have risen substantially since the last tariff adjustment. The increase of 4.4 per cent, effective 1st August 2022, amounts to up to an additional HK$10 per month for around 70 per cent of residential customers and less than HK$290 for about 50 per cent of commercial and industrial customers.

Around 50,000 beneficiaries of the Towngas Concession Schemes, including the eligible elderly, people with disabilities, single-parent families and low-income families, will continue to enjoy a 50 per cent discount on the first 500 MJ of town gas consumed.

Innovative Carbon Reduction Solutions

Acceptance of our Integrated PAU with Desiccant Wheel (Integrated D-PAU) gained traction among customers during the year, due to its cost-effectiveness and proven indoor air quality and carbon reduction capabilities.

In 2022, we secured a contract for our Integrated D-PAU that will enhance the air conditioning system at the Heritage Conservation and Resource Centre in Tin Shui Wai and preserve the valuable artefacts at Hong Kong's public museums. Now underway, the project is scheduled for completion in 2026. We also arranged to have Integrated D-PAU systems installed at the wet laboratory buildings of the Hong Kong-Shenzhen Innovation and Technology Park in the Lok Ma Chau Loop area. A total of 31 Integrated D-PAUs will be installed for these buildings' laboratory rooms, which are expected to be completed in 2024.

In the hotel sector, our gas hot-water-sourced desiccant dehumidifiers are currently installed at the Four Seasons Hotel Hong Kong and at two new hotels, The Fullerton Ocean Park Hotel Hong Kong and Regala Skycity Hotel. Furthermore, two upcoming large-scale hotel developments, Hopewell Centre II and Sun Hung Kai Hotel at Cheung Sha Wan, will adopt our desiccant dehumidifiers for indoor humidity control, hot water supply and food and beverage services.

The innovative technology that goes into our Integrated D-PAU system won recognition at the 2021-22 Hong Kong Awards for Industries: Equipment and Machinery Design

Award, organised by The Chinese Manufacturers' Association of Hong Kong. This is the third award for the Integrated D-PAU in both local and international markets.

In a separate demonstration of Towngas' environmentally-friendly technology, we built Hong Kong's first cross-boundary waste-to-energy application for Maxim Group's fourth food factory next to our gas production plant. The waste heat captured by the plant delivers hot water to the factory, saving up to 790 tonnes in annual carbon emissions. The project also showcases how the circular economy can be effectively implemented in Hong Kong's industrial estates.

Another green technology, our combined heat and power (CHP) system, is helping to reduce carbon emissions for our C&I customers. In 2022, we upgraded the existing CHP system at Nethersole Hospital to provide a Combined Cooling, Heating and Power (CCHP) function through the utilisation of waste heat. This brought an additional saving of 5.7 TJ in energy and a 530 tonnes reduction in carbon emissions. Moreover, a new landfill gas-powered CCHP system will supply 1.5 MWe of electricity for North District Hospital. This project, which is scheduled for completion in 2028, will reduce carbon emissions by a further 5,268 tonnes per year.

At Precious Blood Hospital, we replaced the old diesel boilers with our new gas hot water system. The system not only helps to meet the increased demand for heating in the hospital, but also reduces carbon emissions by 11 tonnes (equivalent to planting 478 trees) to create a greener environment for the surrounding residential neighbourhood. Other hospitals have since expressed strong interest in this gas-powered system.

On board with hydrogen

In 2021, we began looking at the feasibility of extracting hydrogen from the town gas in our pipeline network for the fuel cell application of Hong Kong's bus companies. A trial project was then commissioned at our Tai Po Gas Production Plant in 2022. Towngas hydrogen has many advantages to better equip us to support Hong Kong's Climate Action Plan 2050 for carbon reduction:

- Hydrogen already makes up around 50 per cent of our town gas mix
- We have extensive experience in the careful handling of hydrogen
- Our 3,700-km pipeline network carrying hydrogen eliminates the need to transport and store highly pressured hydrogen cylinders
- Hydrogen is cleaner as it emits only water vapour

Interest in this project is very high among the city's bus operators and oil companies.

Tse Chin-wan, Secretary for Environment and Ecology of the Hong Kong SAR (photo on top, third from right) and Regina Ip, Convenor of the Non-official Members of the Executive Council (the following photo, centre), visited our Tai Po Gas Production Plant to learn about our newly developed hydrogen extraction system.

CELEBRATING OUR
160TH ANNIVERSARY

Since 1862, we have evolved from a company that lit up the streets of Hong Kong into a leading provider of gas products and services for people from every walk of life. As we celebrate our 160th anniversary, we are looking back at our heritage of achievement and looking forward to a smart energy future powered by Towngas innovation.

At the 160th anniversary celebration reception on 12th August 2022, our officiating guest John Lee, Chief Executive of the Hong Kong SAR, praised Towngas for the safe, reliable high-quality gas services we have been providing to the people of Hong Kong. Accompanying Mr Lee were our Joint Chairmen, Dr Lee Ka-kit and Dr Lee Ka-shing. We invited a number of notable political and business figures to join us for the celebration.

The opening of CulinArt 1862 at our Towngas flagship store in Causeway Bay was another of our 160th anniversary celebrations. This contemporary new gastronomic concept offers both casual and fine dining in the same space, with specially designed menus featuring exquisite dishes from all over the world. ESG (Eco, Sustainable, Green) principles were integrated into the chef’s creations for a unique and extraordinary experience.

To thank our customers for their support over the years, we launched a free 160th anniversary commemorative NFT project and held a lucky draw for eService users with more than HK$1.6 million in prizes.

Towngas created a beautiful miniature set featuring the four gas lamps on Duddell Street in Central and the stone steps where they are located. Net proceeds from the sale of the sets went to Hong Kong Community Network, a charity helping children of ethnic minorities.

Music to our ears! In 2022, we commissioned two popular young singers to reinterpret our Towngas theme song. The song, which appeals to both young and mature audiences, was publicised on TV, radio, outdoor media and social media.

Convenient Smart Appliances and Services

In 2022, we continued to launch more smart appliances under our TGC and SIMPA brands. One of these was our first series of smart water heaters, which come with Internet of Things (IoT) functions such as a remote or scheduled hot water circulation on or off function, personalised temperature settings, gas and water consumption monitoring, and appliance error notifications. All these gas appliances can be monitored by smart phones, which not only enhances user convenience but also helps to save energy and water consumption.

Our gas cookers can now also be retrofitted with a smart controller to provide IoT functions. These include remote monitoring of the appliance and emergency shutdown, as well as mobile phone alerts when burners have not been turned off when customers leave their homes. The device is a perfect and economical solution for customers who want to upgrade their existing cooking appliances without purchasing new ones. During the year, we launched a new rechargeable battery module for gas cooking appliances that require battery cells for ignition and functional controls. Since the rechargeable battery does not need replacing, customers can save time and money and reduce waste to landfill.

To improve our customer service, we continued enhancing our online services, such as our popular AI Chatbot, Tinny. It can now be used to make maintenance appointments and other general enquiries, as well as checking outstanding bill accounts. As a result, Chatbot usage increased by 68 per cent compared to the previous year. Additionally, we developed an AI Installation Intelligence System that recommends the most appropriate options for customers browsing for appliances online. By saving customers time, the system increased 83 per cent in sales of appliances online. We also began notifying customers via SMS that they had the option of switching to an online service when queuing up in our telephone system for maintenance enquiries. With the introduction of this e-initiative, the number of online maintenance appointment bookings increased by 56 per cent.

2022 Results of Towngas Service Pledge

Reliability

Uninterrupted gas supply^ (Over 99.99%)

99.994%

^Unplanned gas supply interruption

In case of supply interruption on account of maintenance or engineering work: customer notification 3 days in advance

100%

Restoration of gas supply within 12 hours

100%

Appointments

Availability of maintenance and installation services within 2 working days

Average 1.09 days

Safety

Emergency Team average arrival time (within 25 minutes)

Average 20.87 minutes

Speed and Convenience

Customer Service Hotline (calls answered within 4 rings)

95.07%

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

100%

Handling Suggestions

Reply within 3 working days

100%

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

100%

Service Quality

Efficiency*

9.00

Courteous and friendly attitude*

9.00

*Our target was to exceed a score of 8.5 out of 10.0

Gas Supply Network Expansion

Our pipeline network covered 86 per cent of Hong Kong households. We have continuously expanded our network to meet the growing demands for gas supply.

Following the announcement of the Northern Metropolis plan by the Government in 2021, we began preliminary planning for a supply network of medium- and low-pressure pipelines to serve the new housing developments that will be located there. The Northern Metropolis covers an area of about 300 square kilometres, where the population is expected to increase from around 960,000 residents to 2.5 million. Piping work has already started for the first batch of residents who will move into the area in 2026. When the Northern Metropolis is fully occupied, annual gas demand is expected to increase. We also undertook a route study during the year for a high-pressure pipeline section linking Lam Kam and Au Tau to enhance gas supply reliability to the North-West New Territories and Lantau Island.

To meet the gas supply needs of new housing developments in Hong Kong West, we started plans for a cross-harbour submarine pipeline together with the associated offtake or pigging stations. A feasibility study will commence in 2023. To reinforce gas supply reliability to existing customers in Tseung Kwan O and Kowloon East, we began laying a 3km Intermediate Pressure 600mm pipeline from New Clear Water Bay Road to Sau Mau Ping Road. The new pipeline will also serve new housing development projects at the Anderson Road Quarry Site and the Kai Tak Development area.

MAINLAND BUSINESSES

Despite the challenging operating environment, our utility businesses on the Chinese mainland maintained steady growth in 2022. Beyond our traditional business of gas supply, we also became increasingly focused on the provision of integrated energy solutions, in line with our strategy of decarbonisation and digitalisation that contributes to the country's low-carbon transformation.

Meeting Challenges in a Year of Uncertainty

In 2022, affected by the epidemic, there was a decline in economic and industrial activities and a corresponding drop in natural gas consumption. Although we had to contend with high gas prices in the year, we were able to achieve positive growth of approximately 3 per cent in total volume of gas sales to approximately 32,100 million cubic metres.

International gas prices fluctuated wildly during the year, causing an overall increase over the previous year. In view of the Group's strategy of independent gas sources, we established a gas source operation centre to coordinate and make good use of gas source procurement. We have been diversifying our supply sources through leveraging our own energy investments along with the strategic cooperation with PipeChina to promote the interconnection of provincial pipelines. All these initiatives helped us secure a more reliable supply of gas, relieve pressure on costs and improve the gross profit of gas business.

In 2022, we continued to aggressively target high-consumption industrial clients and manufacturers of green energy products, such as photovoltaic (PV) glass and lithium batteries. In addition, we made a concerted effort to promote our coal-to-gas boiler conversion business in strategic industries and further develop our Gas + Thermal Energy business.

During the year, the number of city-gas projects in our portfolio continued to expand, with the total number of projects we operate rising to 315. By the end of 2022, we were serving more than 37 million customers in 24 provincial regions.

We generate steam using natural gas and have set up an energy station to provide heat for the clients at the Economic and Technological Development Zone in Maanshan, Anhui province.

GAS + THERMAL ENERGY BUSINESS

In line with the global drive for carbon neutrality, our business customers must meet increased Environmental, Social and Governance (ESG) requirements, such as disclosures of their environmental footprint. We are in the unique position of being able to provide these customers with a total integrated energy solution that helps them meet these requirements, as we have deep expertise in this area gained in both the Chinese mainland and Hong Kong.

During the year, we made a tremendous effort to bring our Gas + Thermal Energy services to more customers as a new avenue of growth and significant business strategy for Towngas. These include Combined Cooling, Heating and Power solutions with individual power and district power stations to bring heating, hot water supply, cooling and steam to residential, commercial and industrial customers.

We see great potential for this new direction in our expanded gas business, as we can leverage the more than 400,000 industrial and commercial customers we serve across the Chinese mainland. Moreover, demand is particularly high in northern areas of the country for the residential space heating products. By targeting industrial parks and residential districts, we can conduct better energy planning and develop solutions, capturing large concentrations of high energy-consuming customers.

We provide a stable supply of steam to help various clients save energy at the textile industrial park in Suzhou, Jiangsu province.

We offer specialised energy-saving and eco-friendly solutions to improve environmental and economic efficiency at the commercial building in Jinan, Shandong province.

Following the success of our Gas + Thermal Energy projects, there are additional opportunities to secure more regional energy projects, as well as other related businesses within our mix of integrated energy solutions. To that end, we are exploring the possibility of providing renewable energy and energy and carbon management services, based on local conditions and the individual needs of customers.

The Zero-carbon Smart Industrial Park in Nanjing, Jiangsu province, uses natural gas to supply heating, cooling and hot water, serving nearly 200,000 users.

The biopharmaceutical plant in Suzhou, Jiangsu province, uses natural gas to generate energy including heating, cooling and steam.

Exploring the Potential of Hydrogen

In our transition to cleaner energy, we have been exploring the feasibility of integrating natural gas and hydrogen, which we believe has great development potential. During the year, we launched a demonstration project of blending hydrogen into natural gas pipelines in Weifang, Shandong province. We also explored the idea of transforming existing natural gas stations into hydrogen refuelling stations in Guangdong and Jiangsu provinces, as well as the potential of using our underground gas storage facilities for storing hydrogen.

All these developments are part of the bigger story taking place at Towngas, as we evolve from a traditional company merely supplying gas into an integrated energy solutions provider focused on decarbonisation and digitalisation.

Progress in Our Midstream and Upstream Projects

We invest in midstream and upstream projects, as these enable us to increase the capability of owning the independence of gas sources, helping guarantee a variety of supply sources and reduce costs. At the end of 2022, we operated 14 midstream and upstream projects, including long-haul pipelines, gas storage facilities and liquefied natural gas (LNG) terminals.

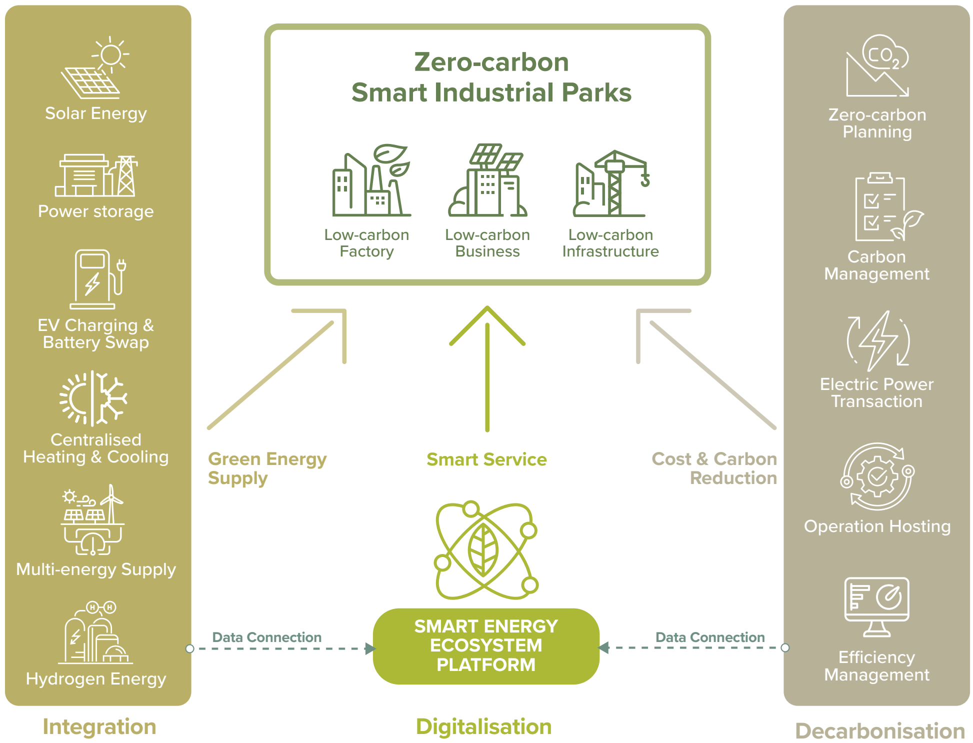
We also made steady progress on our shale gas liquefaction plant in Weiyuan, Sichuan province. Part of the production capacity will be completed and commissioned in 2023. It will be used by companies in Sichuan province not only for peak shaving but also for natural gas trading and sales.

In 2022, two new gas wells were commissioned in our underground salt-cavern gas storage project in Jintan, Changzhou, Jiangsu province. After connecting to the national pipeline network and completing interconnection with the Jiangsu provincial network, the facility increased its operating capacity to 277 million cubic metres, further expanding peak-shaving capability and providing a reliable, stable and cost-efficient gas supply for our local industrial customers and city-gas projects in eastern China.

Our investment in the LNG receiving terminal project in Caofeidian, Tangshan, Hebei province, will provide gas storage and peak-shaving capacity for our city-gas companies and partners in north and northeast China when it is expected to be commissioned in 2023.

In Jintan, Changzhou, Jiangsu province, we operate an underground gas storage facility with increasing peak-shaving capability.

Our Model of Zero-carbon Smart Industrial Parks



Government Support for Clean Energy

While the Chinese government remains committed to the "30-60" dual carbon goals, natural gas is an indispensable transitional energy source.

In a paper released in November 2022, the National Development and Reform Commission and the National Energy Administration asserted that natural gas and new energy as well as multi-energy solutions, not only provide a clean and low-carbon form of energy, but also contribute to the security and stability of the new energy supply system. The government has therefore issued policies encouraging high energy-consumption industries to switch from coal to gas and other forms of green energy in order to reduce emissions.

These policies bode well for Towngas' future business prospects on the Chinese mainland over both the short and long term, given our unrivalled expertise in green energy.

Expanding Renewable Energy Business

During the year, we made a tremendous effort to develop renewable businesses. Our total solution services in integrated smart energy can help our customers fulfil their emission requirements, reduce the cost of energy, and achieve better green governance. At the end of 2022, we had 183 renewable energy projects in 24 provincial regions on the Chinese mainland. These projects included multi-energy supply (cooling, heating and electricity), photovoltaics, energy storage, charging and swapping power stations, and integrated energy services for industrial and commercial customers.

Throughout the Chinese mainland, there are approximately 2,600 industrial parks at the national and provincial levels. We are installing solar PV power generation systems for these industrial parks, mainly on the rooftops of their production plants and logistics warehouses. By rapidly capturing a dominant share of this market, we can achieve higher returns and explore more business opportunities. We are now among the industry-leading companies involved in rooftop PV installation on the Chinese mainland.

NEW BENCHMARKS IN SMART ENERGY

During the year, we created several showcase projects in zero-carbon industrial parks and low-carbon factories that demonstrate our capabilities in providing integrated smart energy solutions. The success of this model can be rapidly replicated to further expand our businesses.

One of our most notable success stories is the zero-carbon industrial park in Taizhou, Jiangsu province. In this project, we have been providing a full range of smart energy services for companies in Hailing district, such as distributed PV systems, energy storage, EV charging and energy saving as well as our Towngas Smart Energy Platform. Developed in collaboration with Tencent Cloud, this smart energy platform has connected more than 10 per cent of the clients in the park and helped them monitor and analyse their energy data more efficiently.

At our zero-carbon industrial park project in Tangshan, Hebei province, we are serving companies in the steel, ceramics, food and chemical industries, all of which are highly energy-consuming. Our services to these customers include the installation of distributed photovoltaic systems and EV charging stations, as well as centralised space heating facilities utilising waste heat. Equipped with a SaaS system, the park can utilise the cloud-based system to effectively manage its carbon emissions and energy use thereby setting an example for other high energy consumption industrial parks.

Zero-carbon industrial park in Taizhou, Jiangsu province.

Zero-carbon industrial park in Tangshan, Hebei province.

A model low-carbon factory

In addition to distributed photovoltaic projects, many of our customers are looking for energy-saving systems for their equipments, such as boilers, air conditioners and air compressors. One example is IPE Group, a Hong Kong-based company that makes metal components for customers on the Chinese mainland and worldwide.

For this company's Guangzhou-based factory, Xinhao Precision Technology, we provided an integrated smart energy solution based on the four-pronged approach of "Green Power + Energy Saving + Intelligence + Offsetting". It includes a 5.2MW distributed photovoltaic system with the capacity to generate 5.4 million kWh of green power annually. We also upgraded their industrial central air-conditioning and air compressor systems and installed a waste heat recovery system that supplies domestic hot water for 3,000 customers. With our solutions, the client has obtained the 2021 carbon-neutral certification issued by the Guangzhou Emissions Exchange.

In August 2022, we acquired a project to offer low-carbon solutions for the public building complex in Futian district, Shenzhen. The first batch of buildings we serve consists of 129 public buildings, including large offices, schools, hospitals, convention and exhibition centres. In this project, our services include PV system, storage and charging integration, high-efficiency air-conditioning system and smart energy management platform, helping these organisations save energy and reduce carbon emissions.

Under the national's 14th Five-Year Plan, industrial parks have become the primary target for reducing carbon emissions since they contribute nearly one-third of all carbon emitted on the Chinese mainland. The first step is to quantify the carbon emissions in these parks, a service in which we have already demonstrated our expertise. Eight major industry sectors have been identified by the Government as priorities for meeting its dual carbon reduction goals: petrochemicals, chemicals, building materials, steel, non-ferrous metals, paper making, electricity and aviation. Pressure is further being exerted on companies that are part of global supply chains to achieve carbon neutrality with respect to Scope 3 emissions, in compliance with international standards.

New energy storage products

Together with Contemporary Amperex Technology Co. Limited (CATL), we have set out to develop advanced technology focused on energy storage, including energy storage equipment, energy management systems and cloud platforms. In November 2022, we commissioned our first energy storage system in Zhejiang, with a capacity of 2,260 kWh. It is capable of monitoring energy usage and storage during low consumption periods for use in peak periods. Its cloud-based smart management system provides real-time monitoring, safety alerts, demand-side responses, electricity trading and a virtual power plant.

Water and Environmental Businesses

Our water supply business served 2.7 million households on the Chinese mainland with total water sales of 1,027 million tonnes in 2022.

Over the past few years, our business has been expanding from tap water supply and wastewater treatment to urban waste utilisation and intelligent water plant facilities. Under our subsidiary Hua Yan Environmental, major projects include urban organic waste utilisation in Jiangsu province and Anhui province.

The Group's urban organic waste utilisation project in Suzhou Industrial Park has cumulatively processed approximately 500,000 tonnes of organic waste to produce 22 million cubic metres of bio-natural gas. This is achieved by fermenting organic food waste and then purifying the resulting product into natural gas for injection into the pipeline network. What is left over (the treated solid residue) is turned into organic fertiliser for park greening. The project is part of the country's efforts to build zero-waste cities and reduce the burial of solid waste. We see this drive as an opportunity for us to step up the collection and treatment of food waste, including expired food and other organic waste, by entering into long-term contracts with large-scale food enterprises. As a result, we will be able not only to reduce urban waste but also to increase the output of bio-natural gas for our gas projects.

We have integrated our environmental sanitation business in Changzhou, Jiangsu province, by providing one-stop services in waste collection, transportation and waste treatment. Projects underway include a sewage treatment project in Wujin High-Tech Industry Development Zone with a processing capacity of 30,000 tonnes per day, which will be commissioned in the third quarter of 2023. Moreover, the preliminary work has also commenced for the construction of two projects in Changzhou, including a domestic waste incineration treatment facility for power generation in Jiashan and a domestic waste transfer station in Wujin district.

This distributed PV pilot project at a water plant in Xiliangshan, Anhui province, will help save electricity costs and reduce carbon emissions.

A TOTAL TOWNGAS LIFESTYLE EXPERIENCE

Advocating healthy lifestyle, we provide high quality services such as cooking classes at our Moment+ Community Healthy Lifestyle Experience Centres.

From the Group's strong base of more than 37 million users, we have extended our businesses beyond gas into a wide range of home and health services and products. Under the Towngas Lifestyle umbrella, we are building smart kitchens that utilise the latest IoT technology and providing value-added services that enable our customers to enjoy a safer, healthier and more comfortable home.

We provide comprehensive door-to-door services such as home cleaning and cooking.

IoT Smart Kitchen

Smart Range Hood

Smart timer
Presetting activation time

Remote control
Switching on or off and adjusting fan speed anywhere, anytime

Easy monitoring
Showing fan speed, air change duration, connection status

Smart Water Heater

Smart timer
Setting up an instant hot water supply schedule

Control via mobile device
Remotely adjusting water temperature, instant hot water supply schedule and energy-saving settings

Overtime and error notifications

Smart Stove

Remote control
Turning off the stove remotely

Safety notifications
Automatic cut-off for protection
Disconnection notification to mobile phone
Out-of-home cut-off reminder

Focus on Smart Kitchens

During the year we explored new opportunities for our smart kitchen solutions, including our Bauhinia appliances and Mia Cucina kitchen cabinets as well as smart home systems, HVAC systems and gas alarms. We also established strategic partnerships with well-known industry brands, including Viessmann, Gearea 5H Home and Meida Integrated Stove, to expand our product range and reinforce our brand reputation for safety and reliability. Moreover, we participated in marketing events such as a kitchen and bathroom industry conference and strengthened our engagement with household appliance and kitchenware associations to increase the reach of our products and services.

Despite the challenges of the epidemic and significant increases in raw material costs during the year, our premium Mia Cucina cabinets recorded steady performance as a result of our marketing efforts aimed at regional property developers on project sales. In the future, we will expand business beyond kitchens to include entire homes.

To enhance customer loyalty, we have been developing the healthy lifestyle business with a focus on healthcare products and services. We also connected our online and offline businesses by setting up Moment+ Community Healthy Lifestyle Experience Centres as one-stop physical venues offering a variety of community activities and healthy lifestyle experiences. The comprehensive range of services and activities provided by these centres include health management, nutrition and diet consultation, cooking classes and in-home cleaning services.

The Towngas China Comfort Living Festival utilised multiple social networking and livestreaming channels to reach potential customers and increase sales.

Mia Cucina, our Total Kitchen Solution of premium kitchen equipment and cabinets are well received among customers.

During the year, we made greater use of various social media channels to increase the frequency of our customer engagements. In addition to our official social media accounts, we targeted potential customers through micro-groups on WeChat, which helped us maximise publicity and increase sales leads for our healthy lifestyle products and services. Looking ahead, we see tremendous growth potential for this market as people became more health conscious, particularly during the post-epidemic era and in light of the Healthy China Initiative.

Annual sales of the insurance business achieved satisfactory growth. In 2022, we signed a strategic cooperation framework agreement with Beijing Nova Insurance, an affiliated organisation of FSE Lifestyle Services Limited, to form joint working teams for providing insurance brokerage services. In the future, we will explore more business opportunities in home- and health-related insurance to enrich our product line and generate additional revenue.

To support our city-gas and Towngas Lifestyle businesses, we continued to enhance the Towngas Lifestyle Cloud Platform. In 2022, the number of registered members of the platform reached approximately 15 million. The integrated platform will be compatible with the back-end systems for smart kitchens, Moment App, our insurance business, hotline centres and other business operations. By putting all these services under one roof, we will be able to increase service efficiency, reduce manpower costs and create better customer experience while accelerating the digital transformation of the Group.

Breakthrough in cybersecurity – Towngas security chip (TGSE CHIP)

Towngas Lifestyle has formed a new partnership with StarFive and China Five to develop smart chips in line with the national data security policies and the digital transformation of the industry. In 2022, we launched a new IoT chip and security platform based on a high-performance RISC-V core, the first product of its kind in the industry. Initially, the new IoT chip will be applied in our gas meters, making them safer, smarter, more energy efficient and more capable of defending against cybersecurity threats. We will continue to expand its application in our smart kitchen platforms and gas network systems.

DIVERSIFIED BUSINESSES

Our investments in sustainable energy and innovative green solutions made satisfactory progress during the year. The Group's diversified businesses achieved solid performance and continued to offer manufacturing and engineering services, not only to support our core businesses but also to generate additional returns for external clients.

Sustainable Energy

In Shanxi province, we operate sustainable gas to liquefied natural gas (LNG) projects using feedstock derived from coalbed methane, while in Ningxia province we produce LNG with coke oven gas as feedstock. Both achieved exceptional results in the year, owing to skyrocketing LNG prices and tight global supply. These additional sources of gas to our city-gas projects help to ensure stable supply and save costs.

During the year, we made good progress in establishing a business platform with strategic joint venture partners for marketing our proprietary technology that produces advanced high-value carbon materials.

We also had our sustainable chemicals business certified by an international sustainability and carbon certification body in the third quarter of 2022. Sales of our sustainable product, which have environmental value in maritime fuel and chemical markets, are expected to begin in second half of 2023.

EcoCeres, Inc. (EcoCeres) was set up in 2021 to develop businesses using waste-based biomass as feedstock. Utilising the patented technologies and R&D capabilities previously developed by the company, EcoCeres offers decarbonisation solutions to attain carbon neutrality.

EcoCeres' plant for the production of hydro-treated vegetable oil (HVO) and sustainable aviation fuel (SAF) in Jiangsu province started industrial-scale production in the fourth quarter of 2020. In 2022, our SAF production facility acquired ISCC-CORSIA Plus certification – a world's first in this industry that is so critical for the future of sustainable aviation. Since its commissioning in the first quarter of the year, the plant has reached its annual design capacity of 300,000 metric tonnes, with daily output exceeding 1,000 metric tonnes. As at the end of 2022, almost 40,000 metric tonnes of SAF had been produced and sold to aviation markets in Europe and the Far East.

To deliver decarbonisation solutions and meet the growing demand for green energy products, EcoCeres began constructing a new facility for the production of HVO and SAF in Malaysia during the year. It will produce biofuels based on 100 per cent waste-based feedstock.

EcoCeres' HVO plant in Zhangjiagang, Jiangsu province, utilises proprietary technologies to convert waste-based bio-grease into hydro-treated vegetable oil.

Engineering

U-Tech Engineering Company Limited (U-Tech) provides clients with a comprehensive one-stop-shop service for its building services, civil engineering, specialised trenchless technologies and technical expertise. In 2022, U-Tech secured a fire services installation contract for residential developments in the Kai Tak Development area. It also participated in the regular maintenance of new marine-related works, such as the seawalls and piers of Hong Kong's Civil Engineering and Development Department. In line with Towngas' ESG policies, U-Tech also installed more than 660 solar panels at the Tai Po Gas Production Plant, which are designed to generate 330,000 kWh annually.

Manufacturing

M-Tech Metering Solutions Company Limited (M-Tech) is in the business of developing and marketing smart gas meters. It makes use of the latest advances in technology, such as Micro-Electro Mechanical Systems and Narrowband Internet of Things (NB-IoT), to deliver wider measuring ranges and smart features. During the year M-Tech achieved record sales of 500,000 residential NB-IoT meters. For the year ahead, we plan to introduce an even smarter residential meter that will incorporate an end-to-end RISC-V encryption chip that complies with the national tier-two encryption standard for more secure data transfer. Another new product, the Ultrasonic Gas Meter, was launched in partnership with a leading Japanese company.

M-Tech plans to introduce an even smarter residential meter that will incorporate an end-to-end RISC-V encryption chip for more secure data transfer.

G-Tech Piping System (Zhongshan) Company Limited (G-Tech) supplies high-quality polyethylene (PE) piping and related ancillary products. This business is supported by GH-Fusion Corporation Limited (GHF), a joint venture between Towngas and Fusion Group (United Kingdom), which specialises in PE fittings. G-Tech's production sites are located in Zhongshan, Guangdong province, and Maanshan, Anhui province, with a total production capacity of more than 22,000 tonnes of pipes per year. These facilities, along with the company's strategically located logistics centres, make G-Tech a preferable choice among customers looking for quality products and high distribution efficiency. Since 2021, GHF has also been operating from a new, expanded factory capable of handling overseas orders from India and other developing countries with excellent sales potential.

Telecommunications

Towngas Telecommunications Company Limited (TGT) provides telecommunications 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 ICT services. To meet the rising demand for data centre services in Hong Kong, TGT is undertaking an expansion project at the Tseung Kwan O Data Centre in two phases. The first phase, which was completed in 2022, offers the latest data centre design to customers, particularly those in the financial sector.

TGT is also developing one-stop smart building solutions to meet the requirements of the Internet of Things (IoT) era, including 5G Sharing System and Wi-Fi 6 coverage. In 2022, TGT deployed these solutions in commercial buildings, hotels and residential sites.

ENVIRONMENTAL, SOCIAL AND GOVERNANCE

ESG (Environmental, Social and Governance) is at the heart of everything we plan and do at Towngas and is embedded into our daily operations and businesses in Hong Kong and the Chinese mainland. In 2022, we continued to provide innovative solutions that contribute to a greener future and long-term value, while carrying out our tradition of caring for the community through our socially responsible programmes.

Our ESG Approach: Leadership from the top

The leaders of the Group set the direction for Towngas' ESG strategy, with a special focus on energy transition and the development of low-carbon and zero-carbon businesses.

During the year, we have formulated a new ESG Strategy "ENERGY" with six pillars: **Energising the Ecosystem**, **Neutralising our Footprint**, **Engaging with Society**, **Revitalising our Strengths**, **Greening the Future** and **Young-at-heart with Resilience**. This Strategy has been endorsed by Towngas' ESG Committee.

The ESG Committee, which oversees Towngas' ESG strategies, policies and practices, comprises our Executive Committee Members and relevant senior executives.

"We recognise that climate change is happening right now, and extreme weather will have a huge impact on the ecological chain. Therefore, we must reduce our GHG emissions to slow down the effects of climate change. All of us must take collective and immediate action to limit temperature rise in order to address this pivotal challenge for the sustainability of our planet."

Dr Lee Ka-kit, Towngas Chairman

ESG Symposium 2022

On 11th November, Towngas joined the Hong Kong Management Association to host the ESG Symposium 2022, the first event of its kind in Hong Kong by commerical sector, covering a wide spectrum of ESG topics in one venue. Tse Chin-wan, the Secretary for the Environment and Ecology of the HKSAR, was the officiating guest. Other guests from sectors such as public utilities, finance and investment, social welfare and corporate governance also gave keynote speeches and participated in panel discussions. A total of more than 5,000 participants from Hong Kong, the Chinese mainland and other countries/regions attended the hybrid Symposium.

Energising the Ecosystem

Conserve and utilise resources mindfully with innovative technology and mitigate the impact on biodiversity.

Towngas is committed to minimising the impact of our operations on the environment, which includes mitigating our impacts on biodiversity. During the year, we published the *Climate-related and Nature-related Directive Guide* in response to the Taskforce on Nature-related Financial Disclosures (TNFD) framework. This made Towngas the first Hong Kong company to respond to the TNFD framework for evaluating biodiversity risk. Also, in alignment with the TNFD, we conducted a LEAP nature risk assessment and identified 11 priority sites from a natural capital and biodiversity perspective.

We also make a strong effort to avoid areas rich in biodiversity or close to World Heritage areas and International Union for Conservation of Nature (IUCN) Category I-IV protected areas. Other measures include minimising digging on public roads and using trenchless technology during pipeline construction and maintenance. Additionally, we are promoting biodiversity awareness through community investment and training programmes.

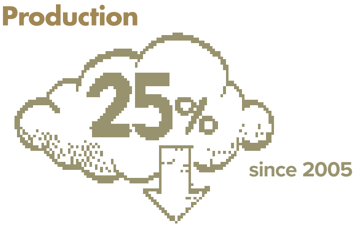
Neutralising our Footprint

Decarbonise our operations and value chain to achieve carbon neutrality and strengthen climate resilience.

As a responsible business, we believe it is vital to factor climate change impacts into our business decisions and to promote decarbonisation. To that end, we strive to minimise our emissions with the aim of achieving carbon neutrality by 2050, in support of the Chinese mainland's "30-60" dual carbon goals and Hong Kong's Climate Action Plan 2050. Our two intermediate targets for 2025 are:

- To reduce group operational GHG emissions by 10% (2020 baseline), and
- To reduce 10 million tonnes of GHG emissions in the environment per year through coal-to-gas, solar photovoltaic power generation, and energy efficiency improvement projects, among others.

Carbon Intensity of Our Gas Production



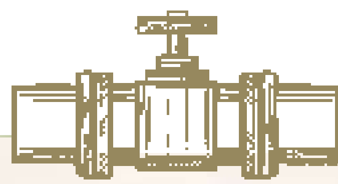
0.576 kg CO_2e/unit of town gas
(a reduction of 25 per cent since 2005)

TCFD Alignment

We have been reporting our climate efforts against the Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) since 2019. In 2022, we updated the climate scenarios with the latest internationally-recognised models and enhanced our disclosures with financial impacts. This allows us to factor climate change impacts into our business decisions and improve our climate resilience. During the year, we also became an official supporter of the TCFD.

Methane Emissions Reduction

We are also striving to reduce methane emissions. During the year, we became a signatory of the Methane Guiding Principles partnership, while Towngas Smart Energy joined the China Oil and Gas Methane Alliance to control methane emissions.



Pipeline leakage study

In collaboration with a university in Hong Kong, we organised a research project and developed a method for quantifying our pipeline leakages according to the unique pipeline landscape in Hong Kong during the year. The project concluded the leakage rate from our pipeline falls between the range of 0.045 to 0.13 per cent.

Supporting a voluntary carbon trading market in Hong Kong

During the year, we joined the Hong Kong Exchanges and Clearing Limited's (HKEX) Hong Kong International Carbon Market Council, for which we will be offering our expertise on the development of carbon trading. We were also among the first users to complete a carbon trade through Core Climate, the new international carbon marketplace established by HKEX.

Engaging with Society

Fulfil our responsibilities as a corporate citizen and create shared value for our customers and communities.

As a socially-responsible organisation, we recognise that our mission extends to the people in the communities we serve. To promote community health and wellness, the environment and youth development, we continued to collaborate with a variety of associations and institutions in 2022.

We also provided caring programmes for the people on the Chinese mainland, with a focus on the underprivileged and schoolchildren in rural areas.

Community Health and Wellness

Sharing the Warmth in Mid-Autumn Festival

Since 2001, we have distributed 2.96 million mooncakes in our Mooncakes for the Community initiative. In 2022, nearly 200 charities and local organisations benefitted from this initiative. On 3rd September, Towngas volunteers joined hands with the Hong Kong Housing Society to stage an online and offline programme to celebrate Mid-Autumn Festival with over 250 elderly. In the Love on Delivery: Mid-Autumn Edition programme, we collaborated with the Christian Family Service Centre to donate HK$300,000 worth of food and beverage vouchers to 500 families.

Peter Wong (first from right), Managing Director of Towngas, gives away mooncakes and gift bags to the elderly.

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 patients. A report on the effectiveness of Chef Anchor 2.0 was released in 2022, which showed this programme has been effective in enhancing the physical, mental and social health of elderly people with subjective memory impairment.

Fight against the Epidemic Together

During the year, we donated anti-epidemic items worth HK$3 million to disadvantaged groups in the community. Through our HK$10 million Dining Coupon Scheme, every Towngas Concession Scheme account holder was entitled to a set of dining coupons worth HK$200, benefitting approximately 50,000 households in Hong Kong.

Providing a reliable gas supply to combat the epidemic

When the fifth wave of the epidemic emerged early in the year, Hong Kong stepped up its efforts to construct community isolation and treatment facilities (Makeshift Hospitals) to accommodate patients. Towngas was tasked with building a 1.5km gas pipeline for the largest of these hospitals, which is located in the Lok Ma Chau Loop area. A team of 200 was quickly assembled to complete the project against a seemingly impossible deadline. As a result of their efforts, it was possible to provide a safe and reliable supply of gas to approximately 10,000 patients and 4,000 staff members.

Towngas engineering team worked on the Lok Ma Chau Makeshift Hospital construction site for laying gas pipeline.

The Environment

Green Flame Project

In the Green Flame Project – Smart Energy Competition organised with Hong Kong Education City, we encouraged students to submit their smart energy solutions based on one or more of the following three themes: integration of multiple energy sources, digitalisation, and decarbonisation. A total of 139 participating teams from 66 primary or secondary schools had entered the competition for prizes, including a scholarship of HK$100,000 as the top reward.

Educating the next generation about environment

In early 2022, we collaborated with The Hong Kong Polytechnic University and the Hong Kong Design Institute to produce original animations under the theme of low-carbon living and conserving resources. Aimed at young schoolchildren, the animations are designed to instil environmentally-friendly living habits at an early age.

Youth Development

Co-Uni Inclusion Programme

To promote social inclusiveness, we teamed up with the Diversity and Inclusion Office of The Chinese University of Hong Kong to offer a series of activities which include cooking class for experiencing diverse food cultures, audio description workshop for understanding the challenges of the visually impaired and workshop about how ethnic minority students started their business with sustainable beer.

Gentle Breeze Movement

To improve learning in schools across the country, we have been organising activities under the Gentle Breeze Movement since 2013. As at 2022, we had donated educational materials worth more than RMB 4.9 million to 46 schools in the provinces and autonomous regions of Jiangxi, Anhui, Jiangsu, Shandong, Guizhou, Shaanxi, Liaoning, Guangdong, Hubei, Fujian, Inner Mongolia, Sichuan, Heilongjiang and Chongqing.

2022 Caring Initiatives

Towngas Concession Scheme

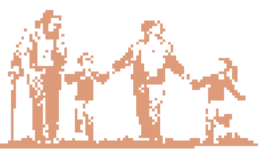
Benefiting the elderly, people with disabilities, as well as single-parent and low-income families during the year:

Total gas concessions:

HK$25 million

Total beneficiaries:

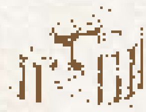
Over 43,000 households



Festive Foods for the Community

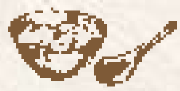
In 2022, we donated

254,000 mooncakes



100,000 rice dumplings

6,000 bowls of soup



Number of Volunteer Hours

Hong Kong:

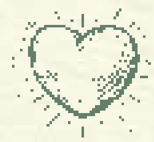
9,239hours

Mainland Utilities:

584,329hours

Charitable Donations towards Community Activities

HK$8.6 million



Revitalising our Strengths

Maintain high standards of corporate governance and business integrity to contribute to our sustainable competitive advantages.

Towngas is committed to the highest standards of accountability and transparency in its corporate governance. All our people are required to be ethical and transparent in their interactions with stakeholders.

Linking Executive Compensation with ESG

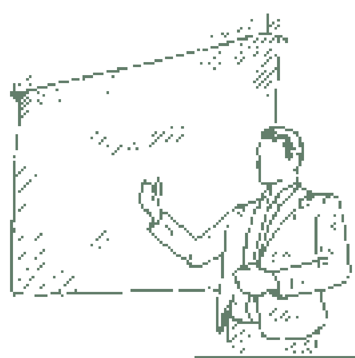
The variable compensations of the Managing Director and senior executives are linked to a broad range of financial returns (including return on assets, equity and capital) and ESG material issues (including climate change, health and safety, workplace diversity, etc), while additional performance bonuses are provided to encourage employees to implement ESG excellence projects and initiatives. This affirmed the Group's commitment to integrating ESG for driving performance improvements.

Enhancing Board Diversity

To ensure our Board is gender diverse, we will appoint at least one female board member on or before 31st December 2024. A diverse senior management team will help to broaden perspectives in the decision-making process.

Anti-corruption-related training provided to employees in Hong Kong:

1,101hours



Greening the Future

Devote to developing low-carbon energy and leaving the world a better place for future generations.

To grow our business, we are transforming our business ecosystem, encouraging innovation, developing green and sustainable finance and investing in smart and clean energy. Our goal during this transformation is to collaborate and partner with stakeholders in order to innovate, excel and build long-term value.

TERA-Award: Innovative Solutions for a Greener Future

Together with the State Power Investment Corporation Limited, we established the TERA-Award competition to encourage organisations around the world to submit innovative ideas that contribute to carbon neutrality. Due to the overwhelming response to the first TERA-Award, we have launched a second TERA-Award Smart Energy Innovation Competition with the objective of identifying more innovative technologies and solutions for a green future powered by smart energy. For the second edition of the TERA-Award, 275 submissions were received from 41 countries and regions. The results have already been announced in 2023.

Partners in Technology: Towngas Energy Academy

In 2022, we established Hong Kong's first funded clean energy application research institute, the Towngas Energy Academy, in the Shenzhen-Hong Kong Innovation and Technology Co-operation Zone. The main focus of the Academy is to commercialise scientific research innovations related to smart green energy. One of the projects will be the commercial development of one of the winning entries in the TERA-Award competition by Luquos Energy Limited. Working with the Luquos team, the Academy will help to bring its new energy storage battery technology, a liquid flow battery, to the nickel-hydrogen battery industry. The Academy will continue to collaborate with governments, industry experts, and science and technology institutions to form a zero-carbon smart energy ecosystem.

Young-at-heart with Resilience

Create a sustainable talent pipeline and supply chain, and safeguard our stakeholders' health and safety.

As a sustainable public utility, we have a long-standing commitment to protect stakeholders against health and safety risks, build an inclusive workplace and support our people through training and growth opportunities. We also incorporate ESG factors into our supply chain management process.

Ensuring Health and Safety

During the year, we remained committed to protecting the health and safety of our workers and customers, as well as the public.

In addition to our worker training programmes, webinars and workshops, we recertified our International Safe Workplace Programme that ensures we are following best practices in injury prevention.

Green campaigns were organised to invite staff to adopt more environmentally-friendly transportation methods.

For our customers, we conducted 834,799 regular safety inspections in 2022. We also launched innovative new devices, such as a smart controller, to improve customer safety (see page 32 for details).

Towngas strives to protect public safety. In 2022, network leaks reported by the public per 10km of gas pipes was 0.191, a 7 per cent reduction over the past 10 years. On the Chinese mainland, we conducted a total of 133 internal HSE audits for our project companies.

Developing a Sustainable Talent Pipeline

The future of Towngas depends on our ability to recruit, retain and develop new talent into a knowledgeable, well-trained workforce. Our internal training organisation, the Towngas Engineering Academy, changed its name in 2022 to the Towngas Training Institute, and will continue to provide career-focused education and training in gas engineering. In addition, we offer students the opportunity to learn about our industry through programmes such as Career in a Nutshell, summer internships and the Co-operative Education Programme.

During the year, Towngas again joined the NewGen Programme with partners from different leading corporations. The aim of this programme is to cultivate a mindset of innovation among millennials, widen their industry knowledge and provide networking opportunities through cross-corporate engagement activities.

Promoting Diversity and Inclusion

Towngas offers careers and career advancement opportunities to any qualified person. We make every effort to ensure our company is an attractive place to work.

As an equal opportunity employer, we endeavour to develop a diverse talent pipeline. In 2022, Towngas became a signatory of "The Racial Diversity and Inclusion Charter for Employers" by the Equal Opportunity Commission in Hong Kong. To create a more inclusive work environment, we offer flexible work arrangement to support working mothers with family needs, barrier-free access to the disabled, and support for elderly-related programmes in Hong Kong, such as the Labour Department's Employment Programme for the Elderly and Middle-aged.

Building a Sustainable Supply Chain

In 2022, we conducted a supply chain resilience assessment and identified key measures to improve our resilience. These included diversifying our supply chain through multi-sourcing, advancing digital technologies to improve efficiency, achieving full supply chain visibility and monitoring suppliers' GHG emissions.

We have a formal risk identification process to assess and identify suppliers that may pose high sustainability risks. To address the ESG performance gaps among these suppliers, we communicated the enhancement recommendations including GHG emission quanitification to them in 2022.

To help suppliers monitor their GHG emissions, we have adopted the S-Carbon platform. Towngas was the first public utility in Asia to implement this platform for supply chain management after a successful trial run in early 2022. Through this system, we are able to digitalise suppliers' GHG emissions and better monitor and manage our Scope 3 GHG emissions. Suppliers who joined the first phase of this platform accounted for around 20 per cent of Towngas' purchasing value on products and materials for Hong Kong operations, which will be further increased to approximately 90 per cent in the near future.

Occupational Health and Safety

Group Lost-Time Injury Frequency Rate (accidents per 1,000,000 work-hours):

Employees: **0.53**

Contractors: **0.14**

Average training hours per employee (Group):

57.8

Hong Kong

Gender pay ratio: (basic salary) 1:1

Employ:

17 non-local employees

14 employees with disabilities

36 retired employees

25% of managerial employees were female

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 on 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 86 to 89.

Business Environment

The outbreak of COVID-19 during the last three years had 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.

At the beginning of 2022, we saw a sharp slowdown in the global economy. This was followed by the eruption of hostilities in Ukraine, which triggered an energy crisis in Europe and a surge in gas prices across the world. These factors, together with heightened geopolitical tensions and interest rate hikes caused by persistently high, broader-based inflation, have dimmed global prospects for growth and added to our downside risks.

Nevertheless, sustainability remained an important focus for 2022 and is already being positioned as an opportunity for accelerating business growth in the transition to net-zero carbon emissions. Policies supporting this transition could drive investment in green infrastructure, creating a turning point in the fight against climate change.

Hong Kong's GDP in 2022 fell by 3.5 per cent from the year before while the rate of underlying consumer price inflation for 2022 was 1.9 per cent. The deteriorated external environment and continued disruptions to cross-boundary cargo flows dealt a serious blow to Hong Kong's exports. Tightened financial conditions resulting from the sharp interest rate hikes weighed heavily on domestic demand, although the generally stable epidemic situation, improved labour market conditions and the disbursement of Consumption Vouchers Scheme supported private consumption.

Despite the repeated lockdowns and ongoing property market turmoil, the GDP of the Chinese mainland recorded a growth of 3.0 per cent. Yet, the official manufacturing purchasing managers index (PMI) fell to 47 in December from 48 in November, still below the 50-mark.

Business challenges faced by the Group include a slowdown in gas demand owing to 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 on the Chinese mainland. Other threats to our business include 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 on 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 are also conducting a pilot study on the supply of hydrogen separated from our town gas mix for bus companies in Hong Kong, as part of our green initiative to combat climate change and achieve carbon neutrality.

In response to the epidemic, a variety of countermeasures have 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 epidemic 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 in Shenzhen to our gas production plant in 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 production plant the capability of switching between natural gas and naphtha for feedstock.

On 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 our 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 on 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, as well as renewable energy systems. We are developing a centralised platform to be launched by our gas operations on the Chinese mainland to optimise operational management on safety. We also manage our assets according to international standards and external certifications, and maintain insurance coverage against any property damage or financial loss.

Financial Liquidity

Our operations and investments, which are long-term in nature, are exposed to liquidity risks. For mitigation, we will continue to improve operational cash flows, assess liquidity positions through regular reviews of capital needs, monitor our investment-grade credit ratings and maintain a healthy capital structure. We also secure diversified funding sources and maximise our funding options.

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 on 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 the epidemic, countermeasures (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 epidemic 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 2022, the Group had a net current borrowings position of HK$6,387 million (31st December 2021: HK$7,620 million) and long-term borrowings of HK$39,623 million (31st December 2021: HK$36,856 million). In addition, banking facilities available for use amounted to HK$21,400 million (31st December 2021: HK$20,900 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. Medium term notes totalling HK$3,819 million, with a tenor of 2 to 10 years, have been issued in 2022. In line with the Group's long-term business investments, as at 31st December 2022, the total nominal amount of medium term notes issued has reached HK$21.6 billion with tenors ranging from 2 to 40 years, mainly at fixed interest rates with an average of 3.0 per cent per annum and an average tenor of 14 years. In addition, our major listed subsidiary company Towngas Smart Energy Company Limited ("Towngas Smart Energy") 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, and thus strengthening its financial position. In April 2022, Towngas Smart Energy issued its first 5-year Sustainability-Linked Bond (the "SLB") and raised a total of US$200 million at a coupon rate at 4.0 per cent per annum. As at 31st December 2022, the total nominal amount of medium term notes issued has reached RMB2.0 billion with tenors ranging from 3 to 5 years, mainly at fixed interest rates with an average of 4.2 per cent per annum and an average tenor of 4 years. As at 31st December 2022, the Group issued notes in the total nominal amount of HK$24,107 million (31st December 2021: HK$21,876 million) in Renminbi, Australian dollar, Japanese yen, United States dollar and Hong Kong dollar under the Programmes (the "MTNs"). The carrying value of the issued MTNs as at 31st December 2022 was HK$23,850 million (31st December 2021: HK$21,299 million).

As at 31st December 2022, the Group's borrowings amounted to HK$59,304 million (31st December 2021: HK$55,111 million). Convertible bonds ("CB") of nominal amount at RMB1,836 million were issued by Towngas Smart Energy to a strategic investor in November 2021 and the carrying value of the debt component of the issued CB as at 31st December 2022 was HK$1,855 million (31st December 2021: HK$1,957 million). While the vast majority of the notes and CB mentioned above together with the bank and other loans of HK$11,860 million (31st December 2021: HK$9,522 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$8,295 million (31st December 2021: HK$10,221 million) were long-term bank loans and HK$13,444 million (31st December 2021: HK$12,112 million) had maturities within one year on revolving credit or term loan facilities. As at 31st December 2022, the maturity profile of the Group's borrowings was 33 per cent within 1 year, 13 per cent within 1 to 2 years, 36 per cent within 2 to 5 years and 18 per cent over 5 years (31st December 2021: 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).

The RMB, AUD and JPY notes issued and the USD SLB issued by Towngas Smart Energy are hedged to Hong Kong dollars or Renminbi respectively 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 12th February 2024 or thereafter every six months on the coupon payment date, 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 2022 remained healthy at 38 per cent (31st December 2021: 35 per cent).

Guarantee

As at 31st December 2022 and 2021, 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

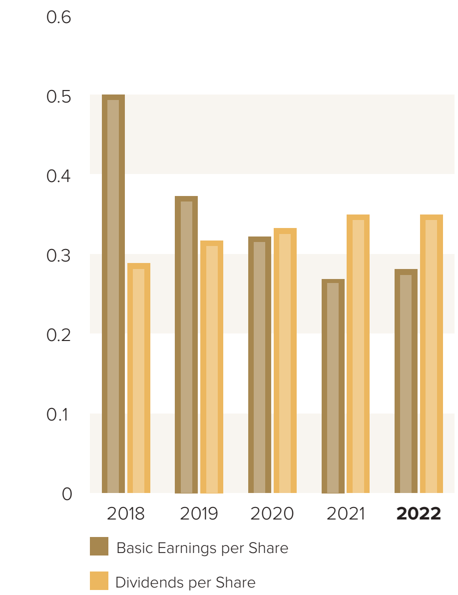
The Group's operations and activities are predominantly based in Hong Kong and the Chinese mainland. As such, its cash, cash equivalents or borrowings are mainly denominated in Hong Kong dollars, Renminbi or United States dollars, whereas borrowings for the Group's subsidiaries, associates and joint 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

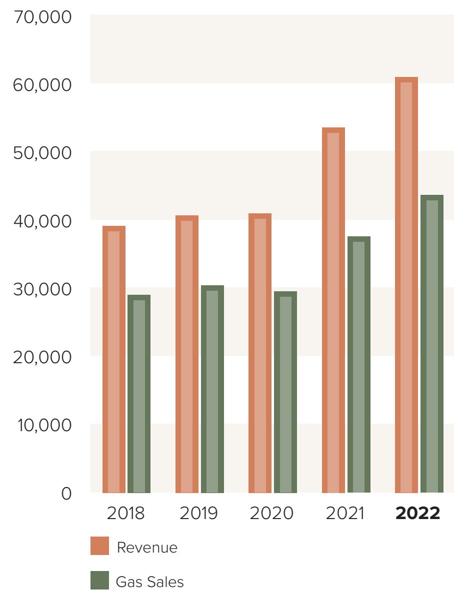
Under the guidance of the Group's Treasury Committee, financial investments have been made in equity and debt securities. As at 31st December 2022, the relevant investments in securities amounted to HK$222 million (31st December 2021: HK$360 million). The performance of the Group's financial investments in securities was satisfactory.

Five-Year Financial Statistics

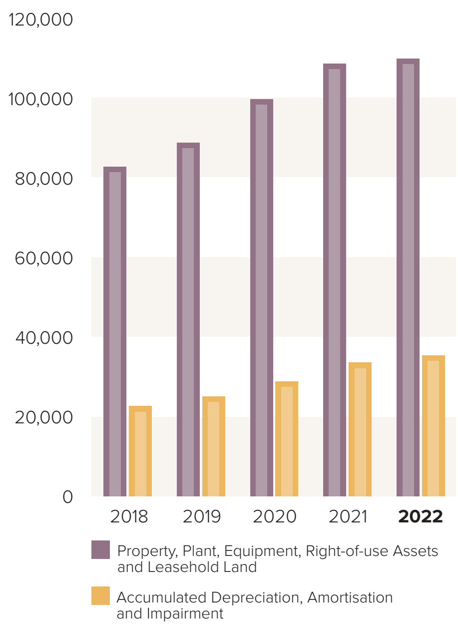
Basic Earnings and Dividends per Share (HK$)



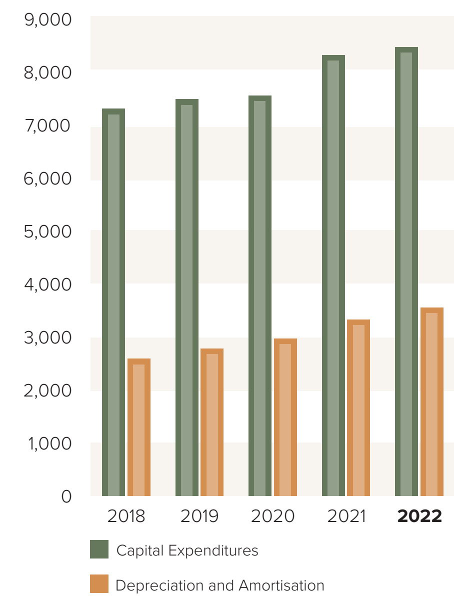
Revenue and Gas Sales (HK$ million)



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

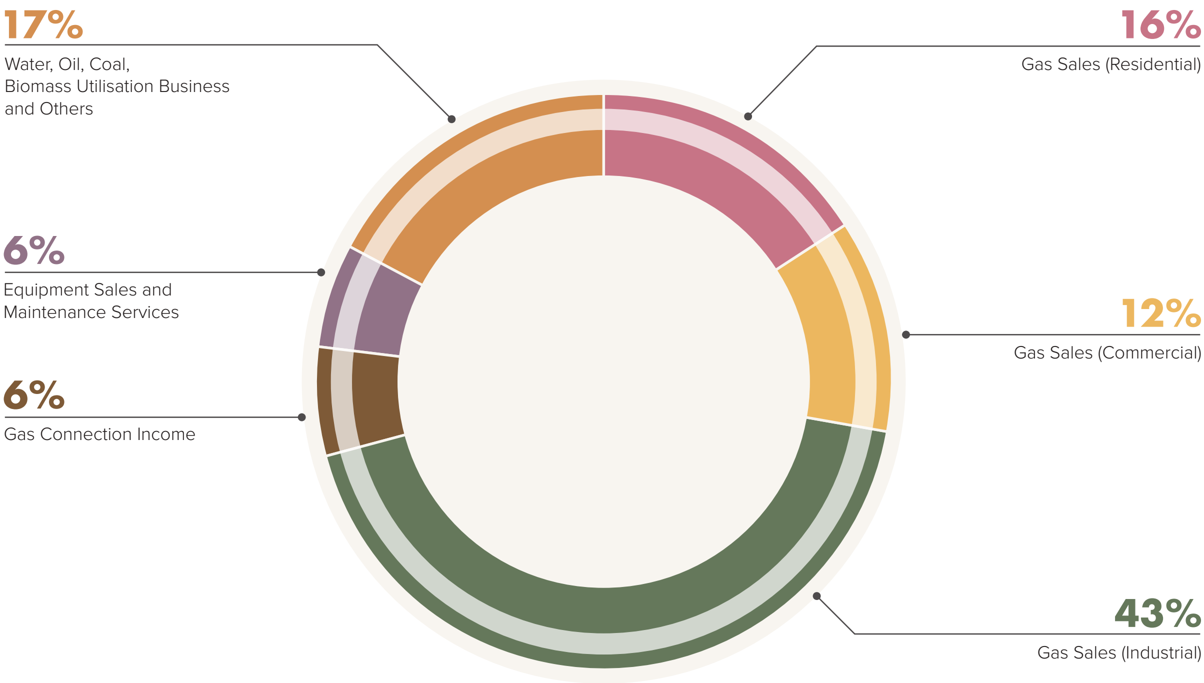


Capital Expenditures (HK$ million)

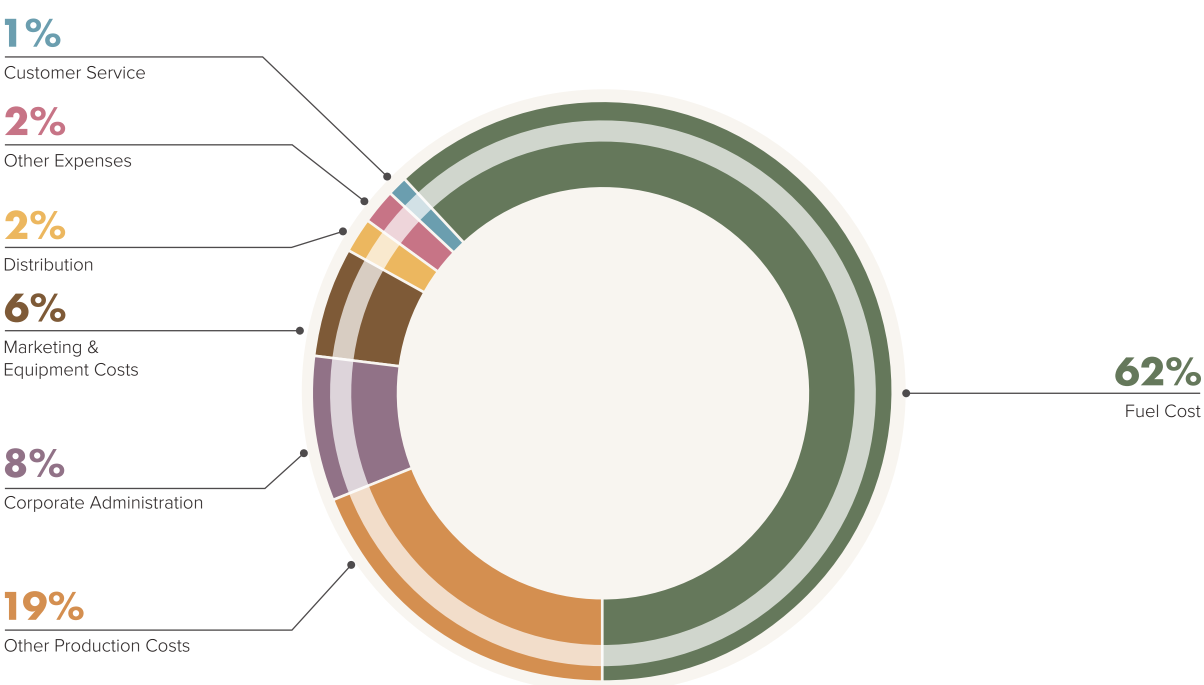


2022 Financial Analysis

Analysis of Revenue



Analysis of Expenditures



Comparison of Ten-Year Results

	2022 HK$'M	2021 HK$'M	2020 HK$'M
Highlights (Company)			
Number of Customers as at 31st December	**1,995,082**	1,964,937	1,943,777
Town Gas Sales, million MJ	**27,398**	27,677	27,947
Installed Capacity, thousand m^3 per day	**12,820**	12,820	12,596
Maximum Daily Demand, thousand m^3	**6,515**	6,493	5,859
Revenue and Profit	**HK$'M**	HK$'M	HK$'M
Revenue	**60,953.4**	53,563.7	40,927.0
Profit before Taxation	**8,183.6**	8,380.7	8,925.6
Taxation	**(1,859.2)**	(2,155.0)	(1,713.2)
Profit after Taxation	**6,324.4**	6,225.7	7,212.4
Owners of perpetual securities	**(111.5)**	(110.9)	(110.3)
Non-controlling Interests	**(965.0)**	(1,097.8)	(1,094.8)
Profit Attributable to Shareholders	**5,247.9**	5,017.0	6,007.3
Dividends	**6,531.0**	6,531.0	6,220.0
Assets and Liabilities			
Property, Plant, Equipment, Right-of-use Assets and Leasehold Land	**74,632.1**	75,160.2	70,936.1
Investment Property	**996.5**	849.0	827.0
Intangible Assets	**5,340.2**	5,607.2	5,462.9
Associates	**34,178.1**	36,149.9	28,670.3
Joint Ventures	**11,163.0**	12,575.2	11,981.2
Non-current Financial Assets *	**6,777.0**	7,549.9	7,485.1
Other Non-current Assets	**6,671.4**	5,988.1	4,761.0
Current Assets	**28,711.0**	24,187.9	20,156.6
Current Liabilities	**(43,522.8)**	(38,533.7)	(29,806.3)
Non-current Liabilities	**(49,807.8)**	(47,694.9)	(41,320.6)
Net Assets	**75,138.7**	81,838.8	79,153.3
Capital and Reserves			
Share Capital	**5,474.7**	5,474.7	5,474.7
Share Premium	**-**	-	-
Reserves	**51,461.0**	57,659.9	57,196.4
Proposed Dividend	**4,291.8**	4,291.8	4,087.4
Shareholders' Funds	**61,227.5**	67,426.4	66,758.5
Perpetual Capital Securities	**2,384.2**	2,384.2	2,384.0
Non-controlling Interests	**11,527.0**	12,028.2	10,010.8
Total Equity	**75,138.7**	81,838.8	79,153.3
Basic Earnings per Share, HK Dollar	**0.28**	0.27	0.32
Dividends per Share, HK Dollar	**0.35**	0.35	0.33
Dividend Cover	**0.80**	0.77	0.97

* 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

2019 HK$'M	2018 HK$'M	2017 HK$'M	2016 HK$'M	2015 HK$'M	2014 HK$'M	2013 HK$'M
1,933,727	1,908,511	1,883,407	1,859,414	1,839,261	1,819,935	1,798,731
28,712	29,550	29,049	28,814	28,404	28,835	28,556
12,596	12,596	12,596	12,596	12,596	12,260	12,260
6,058	7,255	6,191	6,964	6,172	6,571	6,283
HK$'M	HK$'M	HK$'M	HK$'M	HK$'M	HK$'M	HK$'M
40,628.1	39,073.0	32,476.5	28,557.1	29,591.3	31,614.7	28,245.9
10,403.9	12,339.5	11,096.7	9,845.7	9,906.0	9,874.6	9,410.8
(2,289.6)	(1,907.6)	(1,749.8)	(1,575.9)	(1,726.7)	(1,771.4)	(1,655.2)
8,114.3	10,431.9	9,346.9	8,269.8	8,179.3	8,103.2	7,755.6
(98.6)	(107.4)	(111.2)	(110.5)	(110.5)	(102.2)	-
(1,050.0)	(1,011.7)	(1,010.4)	(818.6)	(766.8)	(891.8)	(901.8)
6,965.7	9,312.8	8,225.3	7,340.7	7,302.0	7,109.2	6,853.8
5,923.8	5,385.3	4,895.7	4,450.9	4,046.6	3,679.7	3,345.9
63,807.9	60,193.3	58,056.7	51,226.2	49,417.5	51,353.6	47,002.3
830.0	778.0	764.0	729.0	713.0	683.0	646.0
5,291.1	5,682.1	5,883.6	5,572.4	5,819.5	5,858.5	5,253.3
27,475.5	26,314.1	23,393.4	20,485.0	19,591.9	17,572.5	17,015.1
10,613.5	10,950.3	10,889.2	9,226.5	9,288.2	9,033.8	8,939.0
8,172.5	4,633.7	4,289.9	4,967.1	4,567.0	2,599.7	2,937.3
4,150.2	3,529.4	3,419.3	3,366.3	2,533.3	2,668.3	2,913.5
20,129.4	20,612.2	24,365.8	21,170.9	23,632.9	24,641.5	21,688.7
(26,167.5)	(26,150.9)	(31,948.1)	(19,547.5)	(23,180.6)	(20,689.6)	(19,261.8)
(38,905.9)	(36,348.9)	(28,867.9)	(34,297.9)	(30,269.8)	(31,497.6)	(30,762.9)
75,396.7	70,193.3	70,245.9	62,898.0	62,112.9	62,223.7	56,370.5
5,474.7	5,474.7	5,474.7	5,474.7	5,474.7	5,474.7	2,389.9
-	-	-	-	-	-	2,861.0
54,841.9	53,387.1	51,746.9	45,532.6	44,707.7	44,735.7	42,418.0
3,892.8	3,538.9	3,217.2	2,924.9	2,659.0	2,417.8	2,198.7
64,209.4	62,400.7	60,438.8	53,932.2	52,841.4	52,628.2	49,867.6
2,384.2	-	2,354.1	2,353.8	2,353.8	2,353.8	-
8,803.1	7,792.6	7,453.0	6,612.0	6,917.7	7,241.7	6,502.9
75,396.7	70,193.3	70,245.9	62,898.0	62,112.9	62,223.7	56,370.5
0.37	0.50	0.44	0.39	0.39	0.38	0.37
0.32	0.29	0.26	0.24	0.22	0.20	0.18
1.18	1.73	1.68	1.65	1.80	1.93	2.05

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 2022 which are to be presented at the Annual General Meeting to be held at Meeting Room N101 (Expo Drive Entrance) as the principal meeting place and Hall 1A (Expo Drive Entrance) as the additional meeting venue, Hong Kong Convention and Exhibition Centre, 1 Expo Drive, Wanchai, Hong Kong on Wednesday, 7th June 2023.

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 190 to 207 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 2022 are set out in the consolidated income statement and the consolidated statement of comprehensive income on pages 99 and 100 of this Annual Report respectively.

An interim dividend of HK12 cents per share was paid to shareholders on 15th September 2022 and the Directors recommend a final dividend of HK23 cents per share payable on 26th June 2023 to shareholders whose names are on the register of members of the Company on 15th June 2023.

Business Review

A review of the business of the Group during the year is provided from pages 2 to 63 of this Annual Report, with particulars of important events affecting the Group that have occurred since the end of the year ended 31st December 2022, 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 56 to 57. 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 55 and pages 76 to 92, respectively.

The Group complies with all relevant laws and regulations in all material respects in both Hong Kong and the Chinese mainland that have a significant impact on the businesses or operations of the Group's core business segments, 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. The Group adopts its Code of Conduct and is not aware of any incidents within the Group which contravenes the anti-bribery requirements set out in the Code of Conduct. Moreover, 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 an adverse effect 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 requires its businesses on the Chinese mainland to abide by the laws and regulations of the Chinese mainland in the process of their development and operation. Major areas include foreign investment access, corporate governance, taxation, labour contracts and social insurance, land administration, environmental protection, work safety, anti-monopoly and anti-unfair competition, intellectual property, price control, administration of urban gas, administration of urban water supply, administration of distributed PV power generation, administration of internet and telecommunications, internet security, data and privacy protection, and administration of mineral resources. The Group has set up legal and compliance departments in various business segments in the Chinese mainland to assist and monitor their compliance with laws and regulations that may significantly impact their operations. During the year 2022, the Group's core business segments have complied with, in all material respects, these relevant laws and regulations.

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 62 and 63 of this Annual Report.

Distributable Reserves

The distributable reserves of the Company as at 31st December 2022 amounted to HK$10,862 million (2021: HK$12,499 million) before the proposed final dividend for the year ended 31st December 2022.

Shares Issued

Details of the shares issued by the Company are set out in Note 35 to the consolidated financial statements. There were no movements during the year.

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 2022 are set out in Note 32 to the consolidated financial statements on pages 173 to 175 and Financial Resources Review on pages 58 to 59, respectively.

Charitable Donations

During the year, the Group made charitable donations amounting to approximately HK$8.6 million (2021: HK$3.0 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
Mr. Andrew Fung Hau-chung
(appointed on 14th June 2022)

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. Peter Wong Wai-yee*
Mr. John Ho Hon-ming
Mr. Alfred Chan Wing-kin*
(retired on 6th June 2022)

* Mr. Peter Wong Wai-yee was appointed as Managing Director upon Mr. Alfred Chan Wing-kin's retirement with effect from the conclusion of the Annual General Meeting of the Company held on 6th June 2022 (the "2022 AGM").

At the 2022 AGM, Dr. Colin Lam Ko-yin and Dr. the Hon. Moses Cheng Mo-chi were re-elected as Directors of the Company. Dr. Lee Ka-kit, Dr. Lee Ka-shing, Dr. the Hon. Sir David Li Kwok-po, Prof. Poon Chung-kwong, Mr. Peter Wong Wai-yee and Mr. John Ho Hon-ming 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. Lee Ka-kit, Dr. the Hon. Sir David Li Kwok-po and Mr. Peter Wong Wai-yee are due to retire by rotation at the forthcoming Annual General Meeting and, being eligible, offer themselves for re-appointment. Pursuant to Article 91 of the Articles of Association, Mr. Andrew Fung Hau-chung, Non-executive Director, is also due to retire at the forthcoming Annual General Meeting and, being eligible, offer himself for re-appointment. Details of these Directors proposed for re-election are set out in the circular sent together with this Annual Report.

A list of directors who have served on the boards of the subsidiaries of the Company during the year and up to the date of this report is 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 2022, 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			Interest in Underlying Shares Pursuant to Share Options		
Name of Company	Name of Director	Personal Interests	Corporate Interests	Other Interests		Aggregate Interests	%*
The Hong Kong and China Gas Company Limited	Dr. Lee Ka-kit			7,748,692,715 (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	61,000,000				61,000,000	0.33
	Prof. Poon Chung-kwong	243,085 (Note 4)				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 5)		9,500	95
	Dr. Lee Ka-shing			9,500 (Note 5)		9,500	95
Yieldway International Limited	Dr. Lee Ka-kit			2 (Note 6)		2	100
	Dr. Lee Ka-shing			2 (Note 6)		2	100
Towngas Smart Energy Company Limited ("Towngas Smart Energy")	Dr. Lee Ka-kit			2,162,535,761 (Note 7)		2,162,535,761	66.36
	Dr. Lee Ka-shing			2,162,535,761 (Note 7)		2,162,535,761	66.36
	Mr. Peter Wong Wai-yee	5,120,000			1,800,000 (Note 8)	6,920,000	0.21
	Mr. John Ho Hon-ming	2,033,862			900,000 (Note 8)	2,933,862	0.09

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

Disclosure of Interests (Continued)

A. Directors (Continued)

Options to Subscribe for Shares of Towngas Smart Energy (Long Positions)

Pursuant to the share option scheme of Towngas Smart Energy (the "TSEL Share Option Scheme"), a listed subsidiary of the Company, certain Directors of the Company (who are also directors of Towngas Smart Energy) have been granted options to subscribe for the shares of Towngas Smart Energy, details of which as at 31st December 2022 were as follows:

Name of Company	Name of Director	Date of Grant	Exercise Period	Exercise Price (HK$)	Number of Shares of Towngas Smart Energy Subject to Outstanding Options as at 01.01.2022*	Number of Shares of Towngas Smart Energy Subject to Outstanding Options as at 31.12.2022*
Towngas Smart Energy	Mr. Peter Wong Wai-yee	25.11.2022	25.11.2023-24.11.2025	3.40	N/A	1,800,000
	Total				N/A	1,800,000
	Mr. John Ho Hon-ming	25.11.2022	25.11.2023-24.11.2025	3.40	N/A	900,000
	Total				N/A	900,000

* All share options will be vested on the first anniversary of the date of offer (i.e. 25th November 2023).

Save as mentioned above, as at 31st December 2022, there were no other interests or short positions of the Directors of the Company in any shares, underlying shares or debentures of the Company or any of its associated corporations (within the meaning of Part XV of the SFO) recorded in the register maintained by the Company pursuant to section 352 of the SFO or as otherwise notified to the Company and the Exchange pursuant to the Model Code for Securities Transactions by Directors of Listed Issuers.

B. Substantial Shareholders and Others (Long Positions)

As at 31st December 2022, the interests and short positions of every person, other than the Directors of the Company, in the shares and underlying shares of the Company as recorded in the register required to be kept under section 336 of the SFO were as follows:

	Name of Individual/Company	No. of Shares in which Interested	%*
Substantial Shareholders (a person who is entitled to exercise, or control the exercise of, 10% or more of the voting power at any general meeting)	Dr. the Hon. Lee Shau-kee (Note 3)	7,748,692,715	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 2022, 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 243,085 shares were jointly held by Prof. Poon Chung-kwong and his spouse.
5. 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.
6. 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.
7. These 2,162,535,761 shares in Towngas Smart Energy representing approximately 66.36% of the total number of issued shares in Towngas Smart Energy were beneficially owned by Hong Kong & China Gas (China) Limited (as to 1,976,254,212 shares), Planwise Properties Limited (as to 183,164,833 shares) and Superfun Enterprises Limited (as to 3,116,716 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.
8. These options represent personal interests held by the Directors.

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

A. Subscription Agreements of Towngas Smart Energy

On 18th March 2022, Towngas Smart Energy entered into a subscription agreement respectively with two Directors of the Company, namely Mr. Peter Wong Wai-yee and Mr. John Ho Hon-ming, whereby Mr. Peter Wong Wai-yee and Mr. John Ho Hon-ming conditionally agreed to subscribe for, and Towngas Smart Energy conditionally agreed to issue 1,800,000 and 900,000 shares of Towngas Smart Energy respectively at the subscription price of HK$3.69 per subscription share in cash, representing the respective aggregate consideration of HK$6,642,000 and HK$3,321,000, on and subject to the terms and conditions set out therein.

Relevant shares of Towngas Smart Energy were accordingly allotted and issued to Mr. Peter Wong Wai-yee and Mr. John Ho Hon-ming on 17th June 2022.

B. Share Option Scheme of Towngas Smart Energy

Pursuant to the resolution passed by the shareholders of Towngas Smart Energy at the annual general meeting of Towngas Smart Energy held on 26th May 2022 and the resolution passed by the shareholders of the Company at the 2022 AGM, the TSEL Share Option Scheme was adopted by Towngas Smart Energy.

During the year, 1,800,000 and 900,000 share options of Towngas Smart Energy were granted to two Directors of the Company, namely Mr. Peter Wong Wai-yee and Mr. John Ho Hon-ming respectively under the TSEL Share Option Scheme. Details of which as at 31st December 2022 are set out in "Disclosure of Interests" in this report.

Apart from the above, as disclosed in the Report of the Directors for 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") in which Mr. Alfred Chan Wing-kin (retired as Managing Director and Executive Director with effect from the conclusion of the 2022 AGM), 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 capital contribution was completed during the year.

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 2022 and as at 31st December 2022 were as follows:

Mr. Peter Wong Wai-yee, Mr. John Ho Hon-ming and Mr. Alfred Chan Wing-kin (retired as Managing Director and Executive Director with effect from the conclusion of the 2022 AGM), 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 1st April 2022, (a) U-Tech Engineering Company Limited (“U-Tech”), a wholly-owned subsidiary of the Company, had by countersigning and returning to Ultra Keen Holdings Limited (“Ultra Keen”), a company which is indirectly owned as to 30% by Henderson Land Development Company Limited (“HLD”, together with its subsidiaries, “HLD Group”), on 1st April 2022 a first letter of nomination in respect of the confirmation of the nomination of U-Tech as the sub-contractor to carry out the works relating to installation of fire services system (the “Fire Services Installation Works”) at the maximum contract sum of HK$49,292,600 (comprising the fixed contract sum of HK$49,194,250 and the aggregate fees for the optional maintenance service for the Fire Services Installation Works for the first five years after the expiry of the defects liability period in which U-Tech may provide at a yearly rate of HK$19,670); and (b) Alpha Idea International Limited (“Alpha Idea”), a wholly-owned subsidiary of the Company, had by countersigning and returning to Ultra Keen, on 1st April 2022 a second letter of nomination 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 system and gas water heaters at the fixed contract sum of HK$31,508,800, both at the residential development situated at N.K.I.L. 6554, Area 4A, Site 2, Kai Tak, Kowloon, Hong Kong for Ultra Keen. As Ultra Keen is an associate (as defined in the Listing Rules) of HLD (a controlling shareholder of the Company), Ultra Keen 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 2nd September 2022 (the "Announcement"), as at the date of the Announcement, (i) Towngas Telecommunications Fixed Network Limited (a wholly-owned subsidiary of the Company) had been engaged by Henderson Real Estate Agency Limited ("HREAL", a wholly-owned subsidiary of HLD) (in respect of items 1 and 2 below), Asia Charming Limited ("Asia Charming", a wholly-owned subsidiary of HLD) (in respect of item 3 below) and South Crown Development Limited ("South Crown", a wholly-owned subsidiary of HLD) (in respect of items 4 and 5 below); (ii) Alpha Idea had been engaged by Fortress Star Limited ("Fortress Star", a wholly-owned subsidiary of HLD) (in respect of item 6 below), First Mate Development Limited ("First Mate", a wholly-owned subsidiary of HLD) (in respect of item 7 below) and South Crown (in respect of item 8 below); and (iii) the Company had been engaged by Asia Charming (in respect of item 9 below), for the carrying out of various works at various sites (the "Installation Works") of HLD Group's re-development projects (the "Projects") in Hung Hom (collectively referred to as the "Previous Transactions") at a total fixed contract sum of HK$27,327,340. Details of the Previous Transactions are disclosed for informational purpose below:

Item	Date	Subject Matter	Location	Contract Sum
1	19th October 2021	The supply and installation of 5G router and data SIM with firewall solution	30-44 Gillies Avenue South/ 75-77 Baker Street, Hung Hom	HK$69,600
2	25th February 2022	The supply of 1G broadband service with firewall solution	30-44 Gillies Avenue South/ 75-77 Baker Street, Hung Hom	HK$188,420
3	13th May 2022	The supply and installation of in-house network cabling	30-44 Gillies Avenue South/ 75-77 Baker Street, Hung Hom	HK$106,920
4	7th June 2022	The provision of pre-wiring and network cabling for Wi-Fi 6 wireless LAN services	80-86 Baker Street/ 1-21 Whampoa Street, Hung Hom	HK$127,000
5	7th June 2022	The installation of 5G mobile network	80-86 Baker Street/ 1-21 Whampoa Street, Hung Hom	HK$1,850,000
6	21st October 2021	The supply and installation of gas services	23-27 Whampoa Street/ 79-81 Baker Street, Hung Hom	HK$6,871,500
7	21st October 2021	The supply and installation of gas services	46-50 Gillies Avenue South/ 12A-22A Bulkeley Street/ 39-41 Whampoa Street, Hung Hom	HK$6,337,500
8	11th July 2022	The supply and installation of gas services	80-86 Baker Street/ 1-21 Whampoa Street, Hung Hom	HK$11,304,000
9	5th July 2022	Works in relation to the diversion of existing gas main	At backlane of 30-50 Gillies Avenue South, Hung Hom	HK$472,400

2. (Continued)

On 2nd September 2022, Alpha Idea had by countersigning and returning to Heng Shung Construction Company Limited ("Heng Shung", a wholly-owned subsidiary of HLD) three sets of tender confirmation letters (the "Tender Confirmation Letters") in respect of the confirmation of the successful tenders for the carrying out of the supply and installation of kitchen cabinets (the "Kitchen Cabinets Installation Works") at various sites of the Projects respectively at a total fixed contract sum of HK$46,554,066. The particulars of the Tender Confirmation Letters are set out below:

Item	Subject Matter	Location	Contract Sum
1	The supply and installation of kitchen cabinets	30-44 Gillies Avenue South/ 75-77 Baker Street, Hung Hom	HK$15,979,850
2	The supply and installation of kitchen cabinets	23-27 Whampoa Street/ 79-81 Baker Street, Hung Hom	HK$14,822,897
3	The supply and installation of kitchen cabinets	46-50 Gillies Avenue South/ 12A-22A Bulkeley Street/ 39-41 Whampoa Street, Hung Hom	HK$15,751,319

As HREAL, Asia Charming, South Crown, Fortress Star, First Mate and Heng Shung are wholly-owned subsidiaries of HLD (a controlling shareholder of the Company), they are connected persons of the Company under the Listing Rules. As such, the Previous Transactions and the transactions in respect of the Kitchen Cabinets Installation Works constituted connected transactions for the Company under Chapter 14A of the Listing Rules. Since the Previous Transactions were conducted on normal commercial terms and all the relevant percentage ratios calculated pursuant to Rule 14.07 of the Listing Rules in respect of the Previous Transactions were, in aggregate, less than 0.1%, the Previous Transactions were fully exempt from all disclosure requirements under Chapter 14A of the Listing Rules. Since the Kitchen Cabinets Installation Works would be conducted on normal commercial terms and all the relevant percentage ratios calculated pursuant to Rule 14.07 of the Listing Rules in respect of the transactions under each of the Tender Confirmation Letters were less than 0.1%, such transactions were fully exempt from all disclosure requirements under Chapter 14A of the Listing Rules.

Each of the Previous Transactions and the transactions in respect of the Kitchen Cabinets Installation Works was separately entered into and negotiated between the relevant parties, and relates to works at different sites of the Projects. However, given that the Installation Works and the Kitchen Cabinets Installation Works would be carried out at sites of the Projects which are within the vicinity of each other, the transactions in respect of the Kitchen Cabinets Installation Works and the Previous Transactions were therefore aggregated for the purpose of the Announcement. As the transactions in respect of the Kitchen Cabinets Installation Works, if aggregated with the Previous Transactions, one of the relevant percentage ratios calculated pursuant to Rule 14.07 of the Listing Rules was greater than 0.1% but less than 5%, the aforesaid transactions were subject to the reporting and announcement requirements.

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

During the year ended 31st December 2022, the trustee of the share award scheme adopted by Towngas Smart Energy (the "TSEL Share Award Scheme"), pursuant to the terms of the rules and trust deed of the TSEL Share Award Scheme, purchased on the Exchange a total of 6,965,000 shares of Towngas Smart Energy at a consideration of approximately HK$29,897,000.

Saved as mentioned above, 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 2022.

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 percentage 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.

Employees and Productivity

As at the end of 2022, the number of employees engaged in the town gas business in Hong Kong was 2,110 (2021 year end: 2,106), the number of customers was 1,995,082, and each employee served the equivalent of 946 customers, an increase of 1.4 per cent compared to 2021. 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 2,352 as at the end of 2022 compared to 2,442 as at the end of 2021. Related manpower costs amounted to HK$1,257 million for 2022, an increase of HK$10 million compared to 2021. 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 53,870 as at the end of 2022, an increase of approximately 1,010 compared to 2021.

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.

Corporate Governance

The Company's corporate governance principles and practices are set out in the Corporate Governance Report from pages 76 to 92 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
Chairman

Lee Ka-shing
Chairman

Hong Kong, 17th March 2023

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 2022, 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 2022.

Board of Directors (Continued)

Responsibilities of Directors (Continued)

During the year ended 31st December 2022, 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	✔
Mr. Andrew Fung Hau-chung *(appointed on 14th June 2022)*	✔
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. Peter Wong Wai-yee*	✔
Mr. John Ho Hon-ming	✔

* Mr. Peter Wong Wai-yee was appointed as Managing Director upon Mr. Alfred Chan Wing-kin's retirement with effect from the conclusion of the Annual General Meeting of the Company held on 6th June 2022 (the "2022 AGM").

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 2022, the Board reviewed the Company's policies and practices on corporate governance and the disclosure in the Corporate Governance Report.

Board of Directors (Continued)

The Policy for the Independence of the Board

During the year under review, upon the recommendation of the Nomination Committee, the Board adopted the Policy for the Independence of the Board which aims to ensure independent views and input are available to the Board.
Pursuant to the Policy for the Independence of the Board, a Director may, upon reasonable request, seek and be provided with separate independent professional advice to assist the relevant Director in discharging his duties to the Company. Each Independent Non-executive Director is required to inform the Company as soon as practicable if there is any change in his own personal particulars that may affect his independence. The Nomination Committee is mandated to assess annually the independence of all Independent Non-executive Directors and to affirm if each of them satisfies the criteria of independence as set out in Rule 3.13 of the Listing Rules and is free from any relationships and circumstances which are likely to affect, or could appear to affect, their independent judgement. Every Nomination Committee member abstains from assessing his own independence. The Board considered the Policy for the Independence of the Board was appropriate and effective to ensure independent views and input are available to the Board.

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. The Nomination Committee will monitor the implementation of the Board Diversity Policy and from time to time review it, as appropriate, to ensure the effectiveness of the said policy. During the year under review, upon the recommendation of the Nomination Committee, the Board reviewed the Board Diversity Policy and considered it was appropriate and effective.

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.

Board of Directors (Continued)

Nomination Policy (Continued)

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") in accordance with the Company's Articles of Association (the "Articles of Association"). Shareholders approve the election of individual(s), who stand(s) for election at general meeting, as Director(s).

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

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

Dividend Policy

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

Board of Directors (Continued)

Board Composition

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

During the year ended 31st December 2022 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
Mr. Andrew Fung Hau-chung
(appointed on 14th June 2022)

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. Peter Wong Wai-yee*
Mr. John Ho Hon-ming
Mr. Alfred Chan Wing-kin*
(retired on 6th June 2022)

* Mr. Peter Wong Wai-yee was appointed as Managing Director upon Mr. Alfred Chan Wing-kin's retirement with effect from the conclusion of the 2022 AGM.

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. During the year ended 31st December 2022, according to the recent amendments to the Listing Rules, the Board resolved to no longer require all Non-executive Directors (including Independent Non-executive Directors) to have a specific term, but are subject to retirement by rotation and re-election in accordance with the Articles of Association. The Board will ensure that every Director (including every Non-executive Director and Independent Non-executive Director) is subject to retirement by rotation at least once every three years.

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. Mr. Peter Wong Wai-yee was appointed as Managing Director upon Mr. Alfred Chan Wing-kin's retirement with effect from the conclusion of the 2022 AGM.
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 2022, the Board met four times. The attendance record of each Director at the Board meetings during the year ended 31st December 2022 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
Mr. Andrew Fung Hau-chung *(appointed on 14th June 2022)*	2/2
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	4/4
Executive Directors	
Mr. Peter Wong Wai-yee*	4/4
Mr. John Ho Hon-ming	4/4
Mr. Alfred Chan Wing-kin* *(retired on 6th June 2022)*	2/2

* Mr. Peter Wong Wai-yee was appointed as Managing Director upon Mr. Alfred Chan Wing-kin's retirement with effect from the conclusion of the 2022 AGM.

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 2022.

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 2022, 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 93 to 98 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.

Board Committees (Continued)

Board Audit and Risk Committee (Continued)

The Board Audit and Risk Committee held two meetings during the year ended 31st December 2022 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 2021 annual results and 2022 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 non-audit service fee engaged by the external auditor;
- review of the Company's connected transactions for the year ended 31st December 2021 pursuant to the Listing Rules;
- review of the effectiveness of the Company's financial control and risk management and internal control systems, including the review of the adequacy of resources, staff qualifications and experience, training programmes and budget of the Company's accounting and financial reporting function; and
- review of whistleblowing cases and their follow-up as appropriate.

The attendance record of each member at the Board Audit and Risk Committee meetings during the year ended 31st December 2022 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 or share award scheme. The emoluments of Directors are determined based on the duties and responsibilities of each Director. All Directors receive fixed fee(s) for their role as Director (or Chairman of the Board) and member of the Board Committee(s) as appropriate. Directors' fees are reviewed by the Remuneration Committee with reference to the remuneration level of directors of comparable companies in Hong Kong. Any adjustments to Directors' fees shall be subject to approval from shareholders of the Company at general meetings.

Board Committees (Continued)

Remuneration Committee (Continued)

The Directors' fees were reviewed by the Remuneration Committee. During the year ended 31st December 2022, 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.

The Remuneration Committee held one meeting during the year ended 31st December 2022. During the year under review, the Remuneration Committee reviewed the Directors' fees and the remuneration of the Executive Directors. The attendance record of each member at the Remuneration Committee meeting during the year ended 31st December 2022 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

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 at least annually and making recommendations on any proposed changes to the Board to complement the Group's corporate strategy. It is also responsible for identifying individuals suitably qualified to become board members and 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 2022. 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, the Nomination Policy and the Policy on Shareholders' Communication, 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 2022 AGM, the adoption of the Policy for the Independence of the Board, the review of the implementation and effectiveness of the Board Diversity Policy and the Policy on Shareholders' Communication, the appointment of appropriate female director to the Board no later than 31st December 2024, the acceptance of no specific terms for all Non-executive Directors (including Independent Non-executive Directors) of the Company, and the appointment of Mr. Andrew Fung Hau-chung as Non-executive Director of the Company with effect from 14th June 2022.

Board Committees (Continued)

Nomination Committee (Continued)

The attendance record of each member at the Nomination Committee meeting during the year ended 31st December 2022 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

Diversity

Board Diversity

The Board currently has all male Directors and is committed to enhancing gender diversity of the Board. The Board targets to appoint at least one female board member to the Board on or before 31st December 2024. The Nomination Committee will identify suitable candidate(s), having due regard to the Nomination Policy and the Board Diversity Policy, and make recommendation to the Board on the appointment.

Diversity in the Workforce

The Hong Kong and China Gas Company Limited is an equal opportunity employer and is committed to a policy of recruiting and promoting people on merit regardless of gender, pregnancy, family and marital status, race, colour, ethnic origin, disability, religion etc. As an awardee for Gender Equality, Equality for Diverse Abilities and Family Status Equality under the Employer Recognition Scheme in 2021 and a signatory to the Racial Diversity and Inclusion Charter for Employers governed by Equality Opportunities Commission in 2022, we continue to maintain our employment practices that everyone is treated equally and without discrimination.

To increase the awareness on equal opportunities that contributes to a more inclusive workplace, we continue to organize training on equal opportunities with laws and regulations updates and case studies by professional trainers from Equality Opportunities Commission for our employees.

As at 31st December 2022, about 21.2% of our workforce in the businesses in Hong Kong, inclusive of town gas, telecommunications, liquefied petroleum gas vehicular refilling stations and contractual engineering works, is female and the average gender pay ratio between male and female full time employees (including senior management who are also Executive Directors of the Company) is about 1:1.

For details of gender diversity at the workforce levels, please refer to “Environmental, Social and Governance” under the section “Review of Operations” in this Annual Report and the Environmental, Social and Governance Report 2022.

Auditor's Remuneration and Auditor Related Matters

For the year ended 31st December 2022, the total remuneration of the Company's external auditor, PricewaterhouseCoopers, in respect of statutory audit services and non-audit services (mainly including taxation services, interim results review service and other transaction related services), amounted to approximately HK$14.7 million and approximately HK$9.8 million respectively.

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.

Corporate Audit and Risk Management Department ("CARD"), 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 2022, 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 Risk Management Committee ("RMC"), which mainly comprises risk owners who are also the key business management team. RMC reviews the major risk exposure, monitors the implementation of risk-mitigating controls. While CARD conducts independent reviews and reports to ERMC as well as the Board Audit and Risk Committee regularly on risk management updates.

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 by CARD would be performed to ensure the risk management system is operating effectively.

The RMC 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 with top risks and measures be reported by CARD to 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.

Risk Management and Internal Control (Continued)

Risk Management (Continued)

Environmental, Social and Governance

The Board is committed to our environmental, social and governance ("ESG") development for a sustainable future. Material ESG issues are prioritised and regularly reviewed through our engagement with stakeholders as well as monitoring of global trends. The Board has the overall responsibility of overseeing these material ESG issues and evaluating, determining and integrating relevant risks and opportunities into our key governance processes. Our governance procedures are applied to all areas of decision-making and strategic planning across Towngas.

To further integrate ESG practices into our business operations, the ESG Committee has been established. The Board has appointed the Managing Director to be the Chairman of this Committee, which has responsibility for our strategies, policies and practices on ESG matters. Updates on ESG related policies, initiatives, progress, goals, targets and achievements are reported and discussed on a regular basis.

A description of the Group's risk factors is shown on pages 56 to 57 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 2022, 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 Company has maintained the Policy on Shareholders' Communication which aims at promoting effective communication with shareholders of the Company and enabling them to exercise their rights as shareholders in an informed manner. The Policy on Shareholders' Communication is available on the website of the Company.

It is the Company's general policy to maintain an on-going dialogue with shareholders and the investment community, including the Company's potential investors and analysts. Shareholders and the investment community may at any time make a request for the Company's information to the extent such information is of public domain and will be provided with designated contacts, email addresses and enquiry lines of the Company in order to enable them to make any enquiry in respect of the Company.

Communication with Shareholders (Continued)

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.

During the year under review, upon the recommendation of the Nomination Committee, the Board reviewed the Policy on Shareholders' Communication and considered it was appropriate and effective.

The 2022 AGM was held on 6th June 2022. The attendance record of each Director at the 2022 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
Mr. Andrew Fung Hau-chung *(appointed on 14th June 2022)*	N/A
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. Peter Wong Wai-yee*	1/1
Mr. John Ho Hon-ming	1/1
Mr. Alfred Chan Wing-kin* *(retired on 6th June 2022)*	1/1

* Mr. Peter Wong Wai-yee was appointed as Managing Director upon Mr. Alfred Chan Wing-kin's retirement with effect from the conclusion of the 2022 AGM.

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 (Cap. 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.

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 the 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 208 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

For the purpose of providing flexibility to the Company in relation to the conduct of general meetings, the Company's shareholders passed a special resolution on 6th June 2022 to adopt a new set of Articles of Association which allow (but not require) general meetings to be held as a hybrid meeting where shareholders may attend by electronic means in addition to as a physical meeting where shareholders attend in person. Details of the major amendments brought about by the adoption of the new Articles of Association are set out in the circular of the Company dated 21st April 2022.
The latest version of the Articles of Association is available on both the websites of the Company and the Exchange.

Independent Auditor's Report

pwc

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 99 to 207, comprise:

- the consolidated income statement for the year ended 31st December 2022;
- the consolidated statement of comprehensive income for the year then ended;
- the consolidated statement of financial position as at 31st December 2022;
- 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 2022, and of its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with Hong Kong Financial Reporting Standards ("HKFRSs") issued by the Hong Kong Institute of Certified Public Accountants ("HKICPA") and have been properly prepared in compliance with the Hong Kong Companies Ordinance.

Basis for opinion

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

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

Independence

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

Key audit matters

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

Key audit matters (Continued)

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

- Valuation of investment in certain equity interests of an unlisted company
- Impairment assessment of (i) coal mine and oil properties, (ii) property, plant and equipment of a chemical production project and (iii) interest in an associate, Shanghai Gas Co., Ltd. ("Shanghai Gas")

Key audit matter	How our audit addressed the key audit matter
Valuation of investment in certain equity interests of an unlisted company Refer to notes 3, 4(g) and 24 to the consolidated financial statements The Group's investment in certain equity interests 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 2022 was valued by an independent professional valuer. With reference to the valuation, management had estimated the fair value of the Investment at HK$2.9 billion at year end. Given the valuation involves significant management judgements, it is 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 and minority discount and expected fair value volatility, where applicable.	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 has been engaged to assist the review on valuation methodology, discount rate, marketability discount, minority discount and expected fair value volatility, where applicable. 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 of a chemical production project and (iii) interest in an associate, Shanghai Gas Co., Ltd. ("Shanghai Gas") Refer to notes 4(a), 16, and 21 to the consolidated financial statements In relation to the new energy business segment, the Group owned a coal mine in Chinese mainland and oil properties in Thailand which are engaged in the exploration, drilling and sale of crude oil. The Group also operated a chemical production project in Chinese mainland which is 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$1.9 billion of property, plant and equipment and the carrying value of the property, plant and equipment of the chemical production project was HK$2.6 billion as at 31st December 2022. In consideration of the financial results of these projects and 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 assessment, no provision for impairment against (i) coal mine and oil properties and (ii) property, plant and equipment for the chemical production project were recognised in the consolidated income statement for the year ended 31st December 2022.	Our procedures in relation to management's impairment assessment include: • Understanding the management's impairment assessment process 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 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 (iii) the Group's 25% interest in Shanghai Gas, the carrying value of the investment as at 31st December 2022 amounting to HK$4.7 billion included under "Associates" in the consolidated statement of financial position. In consideration of the operating losses of Shanghai Gas, management considered there were impairment indicators and performed impairment assessment on this investment. Based on the result of the impairment assessment on the investment, no provision for impairment against the carrying value of interest in Shanghai Gas were recognised in the consolidated income statement for the year ended 31st December 2022. Under the impairment assessments, management calculated the recoverable amounts under value-in-use or fair value less cost of disposal method. As the calculations require the use of significant management judgement and estimates, including the coal and oil reserves, future business growth, future products selling price and production costs, 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, oil properties and the chemical production project, challenging the reasonableness of management's assumptions such as the coal and oil reserves, future business growth, future products selling prices and production costs, discount rate, terminal value, where applicable 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.

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.
- 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.

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

(Continued)

- 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 Pong Fei Ho.

PricewaterhouseCoopers

Certified Public Accountants
Hong Kong, 17th March 2023

Consolidated Income Statement

for the year ended 31st December 2022

	Note	2022 HK$'M	2021 HK$'M
Revenue	5	**60,953.4**	53,563.7
Total operating expenses	6	**(52,591.7)**	(44,744.0)
		8,361.7	8,819.7
Other gains/(losses), net	7	**531.0**	(1,563.3)
Interest expense	9	**(1,775.8)**	(1,408.2)
Share of results of associates	21	**865.2**	1,885.6
Share of results of joint ventures	22	**201.5**	646.9
Profit before taxation	10	**8,183.6**	8,380.7
Taxation	13	**(1,859.2)**	(2,155.0)
Profit for the year		**6,324.4**	6,225.7
Attributable to:			
Shareholders of the Company		**5,247.9**	5,017.0
Holders of perpetual capital securities		**111.5**	110.9
Non-controlling interests		**965.0**	1,097.8
		6,324.4	6,225.7
Earnings per share – basic, HK cents	15	**28.1**	26.9
Earnings per share – diluted, HK cents	15	**26.3**	26.9

The notes on pages 107 to 207 form part of these consolidated financial statements.

Consolidated Statement of Comprehensive Income

for the year ended 31st December 2022

	2022 HK$'M	2021 HK$'M
Profit for the year	**6,324.4**	6,225.7
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	**(138.2)**	(279.7)
Remeasurements of retirement benefit	**(42.5)**	82.8
Exchange differences	**(913.7)**	340.0
Items that may be reclassified subsequently to profit or loss:		
Movement in reserve of debt investments at fair value through other comprehensive income	**(18.2)**	(6.6)
Change in fair value of cash flow hedges	**(14.7)**	24.8
Share of other comprehensive loss of associates	**(11.5)**	(3.5)
Exchange differences	**(4,757.4)**	1,937.2
Other comprehensive (loss)/income for the year, net of tax	**(5,896.2)**	2,095.0
Total comprehensive income for the year	**428.2**	8,320.7
Total comprehensive income/(loss) attributable to:		
Shareholders of the Company	**328.6**	6,829.6
Holders of perpetual capital securities	**111.5**	110.9
Non-controlling interests	**(11.9)**	1,380.2
	428.2	8,320.7

The notes on pages 107 to 207 form part of these consolidated financial statements.

Consolidated Statement of Financial Position

as at 31st December 2022

	Note	2022 HK$'M	2021 HK$'M
Assets			
Non-current assets			
Property, plant and equipment	16	**71,818.8**	72,221.5
Investment property	17	**996.5**	849.0
Right-of-use assets	18	**2,813.3**	2,938.7
Intangible assets	19	**5,340.2**	5,607.2
Associates	21	**34,178.1**	36,149.9
Joint ventures	22	**11,163.0**	12,575.2
Financial assets at fair value through other comprehensive income	23	**1,763.3**	2,170.5
Financial assets at fair value through profit or loss	24	**4,715.3**	5,047.6
Derivative financial instruments	25	**298.4**	331.8
Retirement benefit assets	26	**134.7**	184.0
Other non-current assets	27	**6,536.7**	5,804.1
		139,758.3	143,879.5
Current assets			
Inventories	28	**3,426.3**	3,140.7
Trade and other receivables	29	**10,662.8**	9,148.9
Loan and other receivables from associates	21	**415.6**	418.8
Loan and other receivables from joint ventures	22	**612.8**	535.9
Loan and other receivables from non-controlling shareholders		**224.0**	306.6
Financial assets at fair value through profit or loss	24	**70.1**	–
Derivative financial instruments	25	**5.9**	2.1
Time deposits over three months	30	**52.3**	77.9
Time deposits up to three months, cash and bank balances	30	**13,241.2**	10,557.0
		28,711.0	24,187.9
Current liabilities			
Trade payables and other liabilities	31	**(22,004.3)**	(18,487.6)
Loan and other payables to joint ventures	22	**(263.4)**	(189.5)
Loan and other payables to non-controlling shareholders		**(163.4)**	(159.4)
Provision for taxation		**(1,410.8)**	(931.0)
Borrowings	32	**(19,680.9)**	(18,255.2)
Derivative financial instruments	25	**–**	(511.0)
		(43,522.8)	(38,533.7)
Total assets less current liabilities		**124,946.5**	129,533.7

The notes on pages 107 to 207 form part of these consolidated financial statements.

Consolidated Statement of Financial Position (Continued)

as at 31st December 2022

	Note	2022 HK$'M	2021 HK$'M
Non-current liabilities			
Deferred taxation	33	**(6,926.7)**	(7,225.4)
Borrowings	32	**(39,623.1)**	(36,855.9)
Derivative financial instruments	25	**(294.3)**	(856.9)
Loan from a joint venture	22	**(113.1)**	–
Other non-current liabilities	34	**(2,850.6)**	(2,756.7)
		(49,807.8)	(47,694.9)
Net assets		**75,138.7**	81,838.8
Capital and reserves			
Share capital	35	**5,474.7**	5,474.7
Reserves	36	**55,752.8**	61,951.7
Shareholders' funds		**61,227.5**	67,426.4
Perpetual capital securities	37	**2,384.2**	2,384.2
Non-controlling interests		**11,527.0**	12,028.2
Total equity		**75,138.7**	81,838.8

Approved by the Board of Directors on 17th March 2023

Lee Ka-kit
Director

David Li Kwok-po
Director

The notes on pages 107 to 207 form part of these consolidated financial statements.

Consolidated Cash Flow Statement

for the year ended 31st December 2022

	Note	2022 HK$'M	2021 HK$'M
Net cash from operating activities	41(a)	**9,644.7**	10,469.5
Investing activities			
Receipt from sale of property, plant and equipment		**61.1**	93.2
Receipt from sale of right-of-use assets		**46.5**	48.6
Purchase of property, plant and equipment		**(7,724.7)**	(7,273.5)
Increase in other intangible assets	19	**(13.4)**	(25.2)
Payment for right-of-use assets		**(596.3)**	(1,113.2)
Increase in investments in associates		**(100.1)**	(6,255.6)
Increase in loans to associates		**(142.2)**	(264.0)
Repayment of loans by associates		**203.5**	432.8
Increase in investments in joint ventures		**(60.6)**	(118.8)
Increase in loans to joint ventures		**(59.9)**	(68.8)
Increase/(decrease) in amounts due to joint ventures		**104.2**	(295.1)
Repayment of loans by joint ventures		**71.6**	86.1
Deposit paid for acquisition of subsidiaries	27	**(178.7)**	–
Acquisition of businesses	42(a)	**–**	(128.5)
Sale of financial assets at fair value through profit or loss		**74.8**	272.3
Sale of financial assets at fair value through other comprehensive income		**73.5**	101.0
Purchase of financial assets at fair value through profit or loss		**(365.0)**	(271.8)
Purchase of financial assets at fair value through other comprehensive income		**(4.2)**	(140.6)
Decrease in time deposits over three months		**20.3**	97.5
Interest received		**212.5**	171.7
Dividends received from investments in securities		**167.7**	153.3
Dividends received from associates		**1,023.1**	1,067.7
Dividends received from joint ventures		**426.0**	508.9
Net cash used in investing activities		**(6,760.3)**	(12,922.0)

The notes on pages 107 to 207 form part of these consolidated financial statements.

Consolidated Cash Flow Statement (Continued)

for the year ended 31st December 2022

	Note	2022 HK$'M	2021 HK$'M
Financing activities			
Change in loans with non-controlling shareholders		**122.1**	57.7
Capital injection by non-controlling shareholders		**75.0**	191.4
Further acquisition of subsidiaries	42(b)	**(34.4)**	(50.0)
Increase in borrowings		**31,121.1**	27,341.3
Proceed from issue of convertible bonds		**–**	2,349.7
Repayment of borrowings		**(25,386.8)**	(16,859.0)
Principal elements of lease payments		**(132.5)**	(141.6)
Interest paid for the lease liability		**(18.9)**	(13.5)
Interest paid to holders of perpetual capital securities		**(111.5)**	(110.7)
Interest paid		**(1,629.9)**	(1,643.8)
Proceed from issue of preferred shares of a subsidiary	31(e)	**3,393.9**	–
Dividends paid to shareholders of the Company	43(a)	**(6,531.0)**	(6,326.6)
Dividends paid to non-controlling shareholders		**(624.5)**	(612.2)
Proceeds from deemed partial disposal of subsidiaries	41(d)	**141.5**	1,232.2
Purchase of shares under share award scheme of a subsidiary		**(29.9)**	(19.9)
Net cash generated from financing activities		**354.2**	5,395.0
Increase in cash and cash equivalents		**3,238.6**	2,942.5
Cash and cash equivalents at 1st January		**10,557.0**	7,455.0
Effect of foreign exchange rate changes		**(554.4)**	159.5
Cash and cash equivalents at 31st December		**13,241.2**	10,557.0
Analysis of the balances of cash and cash equivalents			
Cash and bank balances		**7,908.5**	9,375.4
Time deposits up to three months		**5,332.7**	1,181.6
		13,241.2	10,557.0

The notes on pages 107 to 207 form part of these consolidated financial statements.

Consolidated Statement of Changes in Equity

for the year ended 31st December 2022

	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 2022	5,474.7	61,951.7	2,384.2	12,028.2	81,838.8
Profit for the year	–	5,247.9	111.5	965.0	6,324.4
Other comprehensive income:					
Movement in reserve of financial assets at fair value through other comprehensive income	–	(129.0)	–	(27.4)	(156.4)
Remeasurements of retirement benefit	–	(42.5)	–	–	(42.5)
Change in fair value of cash flow hedges	–	21.1	–	(35.8)	(14.7)
Share of other comprehensive loss of associates	–	(11.5)	–	–	(11.5)
Exchange differences	–	(4,757.4)	–	(913.7)	(5,671.1)
Total comprehensive income/(loss) for the year	–	328.6	111.5	(11.9)	428.2
Capital injections in subsidiaries	–	55.4	–	19.6	75.0
Further acquisition of subsidiaries (note 42(b))	–	(37.7)	–	3.3	(34.4)
Share-based payments of subsidiaries	–	(15.5)	–	2.0	(13.5)
Deemed partial disposal of subsidiaries (note 41(d))	–	(34.1)	–	175.6	141.5
Interest paid on perpetual capital securities	–	–	(111.5)	–	(111.5)
Dividends paid to shareholders of the Company	–	(6,531.0)	–	–	(6,531.0)
Dividends paid to non-controlling shareholders	–	–	–	(624.5)	(624.5)
Share award scheme of a subsidiary	–	35.4	–	(65.3)	(29.9)
As at 31st December 2022	5,474.7	55,752.8	2,384.2	11,527.0	75,138.7

The notes on pages 107 to 207 form part of these consolidated financial statements.

Consolidated Statement of Changes in Equity (Continued)

for the year ended 31st December 2022

	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 107 to 207 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 2022, the Group was in a net current liabilities position of approximately HK$14.8 billion. This is mainly because of management utilisation of the short-term borrowings which amounted to HK$19.7 billion as at 31st December 2022. 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 and revised accounting guideline adopted in 2022

The Group has adopted the following amendments to standards and revised accounting guideline which are effective for the Group's financial year beginning 1st January 2022 and relevant to the Group.

Amendments to HKFRS 3, HKAS 16 and HKAS 37	Narrow-scope amendments
Annual Improvements Project	Annual Improvements to HKFRSs 2018-2020
AG5 (revised)	Revised Accounting Guideline 5 Merger Accounting for Common Control Combinations

The adoption of the amendments to standards and revised accounting guideline 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 2022 but relevant to the Group and have not been early adopted by the Group

Amendments to HKAS 1 and HKFRS Practice Statement 2 (1)	Disclosure of Accounting Policies
Amendments to HKAS 8 (1)	Definition of Accounting Estimates
Amendments to HKAS 12 (1)	Deferred tax related to Assets and Liabilities arising from a Single Transaction
Amendments to HKAS 1 (2)	Classification of Liabilities as Current or Non-current and Non-current Liabilities with Covenants
Amendments to HKFRS 16 (2)	Lease Liability in a Sale and Leaseback
HK Int 5 (revised) (2)	Hong Kong Interpretation 5 (revised) Presentation of Financial Statements – Classification by the Borrower of a Term Loan that Contains a Repayment on Demand Clause (HK Int 5 (revised))
Amendments to HKFRS 10 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 2023

(2) Effective for annual periods beginning 1st January 2024

(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 "2020 Amendments")

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" ("HKAS 32").

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.

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 2022 but relevant to the Group and have not been early adopted by the Group (Continued)

Amendments to HKAS 1 "Non-current Liabilities with Covenants" (the "2022 Amendments")

The 2022 Amendments modify the requirements introduced by the 2020 Amendments on how an entity classifies debt and other financial liabilities with covenants as current or non-current. The amendments specify that only covenants with which the entity is required to comply with on or before the end of the reporting period affect the entity's right to defer settlement of a liability for at least twelve months after the reporting date. Covenants which are required to comply with only after the reporting period do not affect whether that right exists at the end of the reporting period.

The amendments also specify the disclosure requirements about information that enables users of financial statements to understand the risk that the liabilities could become repayable within twelve months after the reporting period, if the entity classifies liabilities arising from loan arrangements as non-current when the entity's right to defer settlement of those liabilities is subject to the entity complying with covenants within twelve months after the reporting period.

The amendments also defer the effective date of the 2020 Amendments to annual reporting periods beginning on or after 1st January 2024. The amendments, together with the 2020 Amendments, are effective for annual reporting periods beginning on or after 1st January 2024, with early application permitted. If an entity applies the 2020 Amendments for an earlier period after the issue of the 2022 Amendments, the entity should also apply the 2022 Amendments for that period.

Upon the application of the amendments, covenants which the Group is required to comply with only after the reporting period do not affect whether that right exists at the end of the reporting date. Instead, the Group will disclose additional information about the covenants and facts and circumstances that indicate the Group may have difficulty complying with the covenants.

As at 31st December 2022, 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$1,854.9 million and the embedded derivative component (including the conversion options) is measured at fair value with carrying amount of HK$200.7 million as at 31st December 2022, both of which are classified as non-current as set out in notes 32 and 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 component amounting to HK$2,055.6 million 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 will not result in reclassification of the Group's other liabilities as at 31st December 2022.

2 Summary of significant accounting policies (Continued)

(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.

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.

2 Summary of significant accounting policies (Continued)

(b) Consolidation (Continued)

(iv) Associates

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

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

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

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

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.

2 Summary of significant accounting policies (Continued)

(b) Consolidation (Continued)

(v) Joint ventures (Continued)

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.

(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.

2 Summary of significant accounting policies (Continued)

(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 gains/(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.

2 Summary of significant accounting policies (Continued)

(j) Intangible assets (Continued)

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 with finite useful lives 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.

Other intangible assets with indefinite useful lives are not amortised. The useful life of these intangibles is reviewed each reporting period to determine whether indefinite life assessment continues to be supportable.

(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.

2 Summary of significant accounting policies (Continued)

(l) Investments and other financial assets (Continued)

(iii) Measurement (Continued)

Debt instruments

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

Equity instruments

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

2 Summary of significant accounting policies (Continued)

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

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

Cash flow hedge that qualify for hedge accounting

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

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.

2 Summary of significant accounting policies (Continued)

(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.

(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.

2 Summary of significant accounting policies (Continued)

(q) Trade and other receivables (Continued)

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.

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.

2 Summary of significant accounting policies (Continued)

(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 also 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.

(v) Oil, coal, biomass utilisation businesses 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.

2 Summary of significant accounting policies (Continued)

(v) Revenue and income recognition (Continued)

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 gains/(losses), net in the consolidated income statement.

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 Corporate 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 2022, if the RMB had weakened/strengthened by 2 per cent (2021: 2 per cent) against HKD with all other variables held constant, pre-tax profit for the year would have been HK$42.6 million (2021: HK$37.1 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$1,257.4 million (2021: HK$1,599.0 million) and HK$1,218.3 million (2021: HK$1,498.0 million) respectively.

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 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	
	2022 HK$'M	2021 HK$'M	**2022 HK$'M**	2021 HK$'M
Hang Seng Index	**–**	–	**3.6**	4.8
Shanghai Stock Exchange A Share Index	**92.3**	89.1	**94.1**	96.1

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.

(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$13,293.5 million (2021: HK$10,634.9 million). The Group's interest-bearing liabilities mainly comprises floating rate borrowings of HK$25,519.0 million (2021: HK$22,333.8 million), fixed rate borrowings of HK$33,785.0 million (2021: HK$32,777.3 million) and floating rate deposits received from customers of HK$1,453.7 million (2021: HK$1,434.0 million).

At 31st December 2022, if market interest rates on bank deposits had been 100 basis points (2021: 100 basis points) higher/lower with all other variables held constant, pre-tax profit for the year would have been HK$101.9 million (2021: HK$81.1 million) higher/lower, mainly as a result of higher/lower interest income on floating rate bank deposits.

At 31st December 2022, if market interest rates on borrowings and customers' deposits had been 100 basis points (2021: 100 basis points) higher/lower with all other variables held constant, pre-tax profit for the year would have been HK$273.3 million (2021: HK$210.0 million) lower/higher, mainly as a result of higher/lower interest expense on floating rate borrowings and customers' deposits.

3 Financial risk management (Continued)

Financial risk factors (Continued)

(b) Credit risk

Credit risk of the Group mainly arises from:

	2022 HK$'M	2021 HK$'M
Cash and bank deposits	**13,293.5**	10,634.9
Debt securities and derivative financial instruments	**639.8**	757.3
Trade receivables	**4,435.6**	4,211.8
Other receivables	**4,053.6**	3,153.7
Loan and other receivables from joint ventures	**612.8**	535.9
Loan and other receivables from associates	**1,091.8**	1,161.5
Loan and other receivables from non-controlling shareholders	**224.0**	306.6
Other non-current assets	**3,850.4**	3,586.0

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.

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.

3 Financial risk management (Continued)

Financial risk factors (Continued)

(b) Credit risk (Continued)

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:

	2022 %	2021 %
Cash and bank deposits		
AA	1.4	2.1
A	80.3	58.7
BBB	13.1	31.4
Unrated	5.2	7.8
	100.0	100.0
Debt securities		
AA	6.0	10.2
A	18.7	21.0
BBB	–	1.7
BB	1.3	–
Unrated	74.0	67.1
	100.0	100.0
Derivative financial instruments		
AA	41.4	3.5
A	58.6	94.5
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 2022						
Expected loss rate	**0.1%**	**0.2%**	**1.2%**	**3.0%**	**48.8%**	**5.2%**
Gross carrying amount – trade receivables and contract assets (HK$'M)	**3,654.6**	**1,004.1**	**132.2**	**95.1**	**570.1**	**5,456.1**
Loss allowance (HK$'M)	**1.5**	**2.3**	**1.6**	**2.8**	**278.2**	**286.4**
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 (HK$'M)	3,267.0	1,040.0	103.9	105.4	512.5	5,028.8
Loss allowance (HK$'M)	6.9	3.3	2.4	4.2	229.4	246.2

The closing loss allowances for trade receivables and contract assets as at 31st December 2022 and 2021 reconcile to the opening loss allowances as follows:

	Loss allowances for trade receivables and contract assets	
	2022 HK$'M	2021 HK$'M
At 1st January	**246.2**	300.9
Increase in loss allowance recognised in the profit or loss during the year (note 10)	**73.9**	39.7
Receivables written off during the year as uncollectible	**(13.3)**	(99.0)
Unused amount reversed	**(9.9)**	(2.9)
Exchange differences	**(10.5)**	7.5
At 31st December (note 29(a))	**286.4**	246.2

3 Financial risk management (Continued)

Financial risk factors (Continued)

(b) Credit risk (Continued)

Trade receivables and contract assets (Continued)

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.

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. Other instruments are considered to be low credit risk where they have a low risk of default. The issuers have 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 2022				
Trade and other payables	**10,112.3**	**–**	**–**	**–**
Loan and other payables to joint ventures	**263.4**	**–**	**113.1**	**–**
Loan and other payables to non-controlling shareholders	**163.4**	**15.6**	**153.8**	**–**
Borrowings	**21,550.3**	**9,287.3**	**23,876.6**	**14,115.5**
Lease liabilities	**170.8**	**124.7**	**128.8**	**57.9**
Derivative financial instruments	**–**	**21.1**	**254.3**	**18.9**
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

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, 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.

3 Financial risk management (Continued)

Capital risk management (Continued)

The gearing ratios at 31st December 2022 and 2021 are as follows:

	2022 HK$'M	2021 HK$'M
Total borrowings	**(59,304.0)**	(55,111.1)
Less: Time deposits, cash and bank deposits	**13,293.5**	10,634.9
Net borrowing	**(46,010.5)**	(44,476.2)
Total equity	**(75,138.7)**	(81,838.8)
Net borrowing	**(46,010.5)**	(44,476.2)
	(121,149.2)	(126,315.0)
Gearing ratio	**38%**	35%

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 2022 and 2021.

	Level 1		Level 2		Level 3		Total	
HK$'M	2022	2021	2022	2021	2022	2021	2022	2021
Financial assets								
Financial assets at FVPL								
– Debt securities	**248.4**	284.2	**–**	–	**–**	–	**248.4**	284.2
– Equity investments	**1,218.3**	1,498.0	**–**	–	**3,318.7**	3,265.4	**4,537.0**	4,763.4
Derivative financial instruments	**–**	–	**62.5**	71.1	**241.8**	262.8	**304.3**	333.9
Financial assets at FVOCI								
– Debt securities	**87.1**	139.2	**–**	–	**–**	–	**87.1**	139.2
– Equity investments	**1,257.4**	1,599.0	**–**	–	**418.8**	432.3	**1,676.2**	2,031.3
Total financial assets	**2,811.2**	3,520.4	**62.5**	71.1	**3,979.3**	3,960.5	**6,853.0**	7,552.0
Financial liabilities								
Other payables	**–**	–	**–**	–	**154.0**	154.0	**154.0**	154.0
Derivative financial instruments	**–**	–	**93.6**	591.3	**200.7**	776.6	**294.3**	1,367.9
Total financial liabilities	**–**	–	**93.6**	591.3	**354.7**	930.6	**448.3**	1,521.9

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$2.9 billion (2021: approximately HK$3.2 billion) of an unlisted equity investment and its related derivative, which are considered entirely as financial assets at fair value through profit or loss. 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 15.0 per cent (2021: 12.0 percent), 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 54.8 per cent (2021: 47.9 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$0.2 billion (2021: approximately HK$0.3 billion), the fair value is determined based on the binomial model. The significant unobservable inputs include discount rate of 15.8 per cent (2021: 10.2 per cent) and share price expected volatility of the fair value of the underlying equity instrument of 42.4 per cent (2021: 36.2 per cent). The fair value movement was caused by the change in discount rate and share price expected volatility.

– Financial assets also include unlisted equity investments of approximately HK$0.8 billion (2021: approximately HK$0.5 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 (2021: approximately HK$0.2 billion), which is resulted by 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 (2021: 3.1 per cent) and the rate of probability on the outflow of resources will be required to settle the obligation. The fair value movement, if any, was caused by the change in the discount rate and the change in the rate of probability.

– Financial liabilities also include embedded derivative component of convertible bonds of approximately HK$0.2 billion (2021: 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 39.9 per cent (2021: 34.1 per cent). The fair value of convertible bonds 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 2022 and 2021:

	Financial assets		Financial liabilities	
	2022 HK$M	2021 HK$M	**2022 HK$M**	2021 HK$M
At 1st January	**3,960.5**	3,752.2	**930.6**	154.0
Additions	**366.9**	164.8	**–**	409.4
Disposal	**(59.0)**	–	**–**	–
Change in fair value	**43.0**	(47.7)	**(531.5)**	358.6
Exchange differences	**(332.1)**	91.2	**(44.4)**	8.6
At 31st December	**3,979.3**	3,960.5	**354.7**	930.6

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 situation 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 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 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 2022. 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 2022. The key assumptions adopted in the tests were coal and oil reserves, future business growth, future products selling prices and production costs, production volume and discount rate of 12.0 per cent to 12.7 per cent (2021: 10.0 per cent to 11.2 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 2022 (2021: Nil). 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 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 2022. 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 (2021: 10.0 per cent). Based on the result of the test, no impairment loss was recognised in the profit or loss for the year ended 31st December 2022 (2021: impairment loss of HK$731.0 million against property, plant and equipment and HK$25.1 million against goodwill). 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 material loss to the Group.

Interest in an associate, Shanghai Gas Co., Ltd. ("Shanghai Gas")

In view of the operating losses of Shanghai Gas which is an indication of impairment, the management of the Group performed impairment assessment on interest in Shanghai Gas as a single asset at 31st December 2022. The key inputs and assumptions for the fair value less costs of disposal performed by an independent qualified professional valuer engaged by the Group and approved by the management of the Group are discounted cash flow forecast based on budget approved by management of Shanghai Gas, long-term growth rate and discount rate. Management estimates a discount rate of 11 per cent that reflects current market assessments of the time value of money and the risks specific to Shanghai Gas. The inputs and assumptions made in the budget are based on historical performance of Shanghai Gas and economic data relevant to the industry or the region. Cash flows beyond 5-year period have been extrapolated using growth rate of 2 per cent per annum, which is based on industry growth forecasts. Determining whether impairment loss should be recognised requires an estimation of the recoverable amount of the associate which is the higher of value in use and fair value less costs of disposal. As the recoverable amount based on fair value less costs of disposal is higher than the carrying amount of the interest in Shanghai Gas and the management of the Group considered that no impairment loss has been recognised as at 31st December 2022, the management of the Group is not required to assess the value in use. The fair value is derived from discount cash flow method under the income approach, by using key inputs and assumptions including discounted cash flow forecast based on budget approved by management of Shanghai Gas, long-term growth rate and discount rate. In cases where the actual cash flows are less than expected, or change in facts and circumstances which result in revision of future cash flows estimation, a material recognition of impairment may arise, which would be recognised in profit or loss for the period in which such a recognition takes place.

4 Critical accounting estimates and judgements (Continued)

(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.

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:

	2022 HK$'M	2021 HK$'M
Gas sales before fuel cost adjustment	**42,267.5**	37,434.0
Fuel cost adjustment	**1,348.2**	806.7
Gas sales after fuel cost adjustment	**43,615.7**	38,240.7
Gas connection income	**3,589.8**	3,924.4
Equipment sales and maintenance services	**3,829.1**	3,456.3
Water and related sales	**1,785.4**	1,762.7
Oil and coal related sales	**1,272.0**	1,158.7
Biomass utilisation businesses (previously known as "Hydro-treated vegetable oil related sales")	**4,013.0**	2,604.9
Other sales	**2,848.4**	2,416.0
	60,953.4	53,563.7

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 are 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 profit before interest, tax, depreciation and amortisation (the "adjusted EBITDA"). Other information provided, except as noted below, to the ECM is measured in a manner consistent with that in the consolidated financial statements.

5 Segment information (Continued)

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

2022 HK$'M	Gas, water and related businesses Hong Kong	 Chinese mainland	New Energy	Property	Other segments	Total
Revenue recognised at a point in time	10,589.9	39,982.7	7,410.2	–	224.4	58,207.2
Revenue recognised over time	–	1,134.0	–	–	1,036.1	2,170.1
Finance and rental income	–	–	511.9	64.2	–	576.1
	10,589.9	41,116.7	7,922.1	64.2	1,260.5	60,953.4
Adjusted EBITDA	5,186.1	5,448.9	1,261.0	36.4	114.0	12,046.4
Depreciation and amortisation	(874.6)	(1,914.0)	(465.8)	–	(191.7)	(3,446.1)
Unallocated expenses						(238.6)
						8,361.7
Other gains, net						531.0
Interest expense						(1,775.8)
Share of results of associates (note)	–	704.0	(156.7)	316.4	1.5	865.2
Share of results of joint ventures	–	191.7	0.5	10.4	(1.1)	201.5
Profit before taxation						8,183.6
Taxation						(1,859.2)
Profit for the year						6,324.4

Note

Share of results of associates includes share of fair value loss of HK$62.0 million for the year (2021: Nil) related to the Group's investment in the International Finance Centre (the "IFC") complex held via an associate.

5 Segment information (Continued)

2021 HK$'M	Gas, water and related businesses Hong Kong	 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

The segment assets at 31st December 2022 and 2021 are as follows:

2022 **HK$'M**	**Gas, water and related businesses** **Hong Kong**	 **Chinese mainland**	**New Energy**	**Property**	**Other segments**	**Total**
Segment assets	**19,005.7**	**97,585.7**	**22,261.6**	**15,846.5**	**4,729.7**	**159,429.2**
Unallocated assets:						
Financial assets at FVOCI						**1,763.3**
Financial assets at FVPL						**4,785.4**
Time deposits, cash and bank balances excluded from segment assets						**1,179.0**
Others (note)						**1,312.4**
Total assets						**168,469.3**

5 Segment information (Continued)

2021 HK$'M	Gas, water and related businesses Hong Kong	 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

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 2022 is HK$12,487.8 million (2021: HK$11,728.9 million), and the revenue from external customers in the Chinese mainland and other geographical locations is HK$48,465.6 million (2021: HK$41,834.8 million).

At 31st December 2022, the total of non-current assets other than financial instruments located in Hong Kong is HK$35,636.5 million (2021: HK$35,093.8 million), and the total of non-current assets other than financial instruments located in the Chinese mainland and other geographical locations is HK$97,344.8 million (2021: HK$101,235.8 million).

For the years ended 31st December 2022 and 2021, the percentage of revenues attributable to the Group's five largest customers is less than 30 per cent.

6 Total operating expenses

	2022 **HK$'M**	2021 HK$'M
Stores and materials used	**39,308.9**	32,591.8
Manpower costs (note 11)	**3,741.0**	3,623.8
Depreciation and amortisation	**3,525.4**	3,288.6
Other operating items	**6,016.4**	5,239.8
	52,591.7	44,744.0

7 Other gains/(losses), net

	2022 HK$'M	2021 HK$'M
Net investment gains (note 8)	**98.1**	354.9
Fair value gain on investment property (note 17)	**145.0**	22.0
Provision for assets (note)	**(240.0)**	(1,531.7)
Ineffective portion on cash flow hedges (note 25)	**(3.6)**	4.9
Change in fair value of embedded derivative component of convertible bonds (note 32(b))	**531.5**	(358.6)
Others	**–**	(54.8)
	531.0	(1,563.3)

Note

For the year ended 31st December 2022, the amount mainly included impairment provision against goodwill of HK$145.0 million in relation to a city-gas joint venture in the Chinese mainland and included impairment provision against property, plant and equipment and right-of-use assets of HK$68.8 million and HK$21.2 million respectively under the New Energy business segment.

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.

8 Net investment gains

		2022 HK$'M	2021 HK$'M
(a)	**Interest income**		
	Bank deposits	**145.8**	105.4
	Listed financial assets at FVOCI	**2.1**	2.2
	Loans to associates and joint ventures	**40.1**	51.5
	Others	**16.5**	11.9
		204.5	171.0
(b)	**Net realised and unrealised (losses)/gains and interest income on financial assets at FVPL and derivative financial instruments**		
	Listed securities	**(129.2)**	(31.8)
	Unlisted securities	**(32.5)**	(23.3)
	Exchange differences	**(21.3)**	2.3
		(183.0)	(52.8)
(c)	**Net realised and unrealised gains on financial assets at FVOCI**		
	Exchange differences	**0.3**	1.7
		0.3	1.7
(d)	**Dividend income**		
	Listed financial assets at FVPL	**51.0**	43.2
	Listed financial assets at FVOCI	**68.7**	48.2
	Unlisted financial assets at FVOCI	**48.0**	61.9
		167.7	153.3
(e)	**Exchange (losses)/gains**	**(91.4)**	81.7
		98.1	354.9

9 Interest expense

	2022 HK$'M	2021 HK$'M
Interest on bank loans and overdrafts wholly repayable within five years	**1,158.8**	906.6
Interest on guaranteed notes wholly repayable within five years	**379.4**	271.7
Interest on guaranteed notes not wholly repayable within five years	**296.2**	354.3
Interest on convertible bonds (note 32(b))	**77.1**	9.3
Interest on lease liabilities	**18.9**	13.5
	1,930.4	1,555.4
Less: amount capitalised	**(154.6)**	(147.2)
	1,775.8	1,408.2

The interest expense is capitalised at average rates from 2.10 per cent to 4.79 per cent (2021: 2.59 per cent to 6.18 per cent) per annum.

10 Profit before taxation

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

	2022 HK$'M	2021 HK$'M
Cost of inventories sold	**38,008.1**	32,045.3
Depreciation and amortisation	**3,525.4**	3,288.6
Loss on disposal/write off of property, plant and equipment	**210.8**	18.4
Loss/(gain) on disposal of right-of-use assets	**34.9**	(26.0)
Impairment loss of trade receivables (note 3(b))	**73.9**	39.7
Rental income from investment property		
– gross rental income	**(64.2)**	(59.5)
– outgoing expenses	**27.5**	28.8
Auditors' remuneration		
– audit services	**35.7**	32.7
– non-audit services	**11.8**	17.9
Net loss on residential maintenance (note)	**81.1**	81.5

Note

	2022 HK$'M	2021 HK$'M
Analysis of net loss on residential maintenance:		
Residential maintenance revenue	**(219.3)**	(218.9)
Less expenses:		
Manpower costs	**175.0**	175.1
Other operating and administrative expenses	**125.4**	125.3
Net loss	**81.1**	81.5

11 Manpower costs

(a) Staff costs

	2022 HK$'M	2021 HK$'M
Salaries and wages	**3,279.5**	3,178.1
Pension costs – defined contribution retirement schemes	**450.9**	431.0
Pension costs – defined benefit retirement scheme (note 26)	**10.6**	14.7
	3,741.0	3,623.8

During 2021, 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 was included in "Other gains/(losses), net" in the profit or loss.

(b) Five highest paid individuals

The five individuals whose emoluments were the highest in the Group for the year include three (2021: three) directors whose emoluments are reflected in the analysis shown in note 12. Details of the emoluments payable to the remaining two (2021: two) individuals during the year are as follows:

	2022 HK$'M	2021 HK$'M
Fee, salaries, allowances and benefits in kind	**5.2**	5.2
Performance bonus	**18.1**	7.1
Contributions to retirement scheme	**1.5**	1.6
Share-based payment benefits	**0.5**	16.4
	25.3	30.3

Number of individuals whose emoluments fell within:

Emoluments band (HK$'M)	2022	2021
20.0 – 20.5	**–**	1
16.5 – 17.0	**1**	–
9.5 – 10.0	**–**	1
8.0 – 8.5	**1**	–

(c) Emoluments of senior management

Senior management for the years ended 31st December 2022 and 2021 were all executive directors of the Company whose emoluments have been shown in note 12.

12 Benefits and interests of directors

(a) Directors' emoluments

Name of director	Fees HK$'M	Salary, allowances and benefits in kind HK$'M	Performance bonus HK$'M	Contributions to retirement scheme HK$'M	Sub-total HK$'M	Others HK$'M	Total HK$'M
	Emoluments paid or payable to every director whether of the Company or its subsidiary undertaking						
2022							
Alfred Chan Wing-kin (Managing Director) (note (i) and (ii))	0.2	6.4	4.0	2.3	12.9	–	12.9
Peter Wong Wai-yee (Managing Director) (note (i) and (ii))	0.5	6.2	18.4	5.2	30.3	0.9	31.2
John Ho Hon-ming (note (i))	0.5	4.9	6.9	2.2	14.5	0.5	15.0
Colin Lam Ko-yin	0.3	0.2	–	–	0.5	–	0.5
Lee Ka-kit (note (i))	1.0	0.1	–	–	1.1	–	1.1
Lee Ka-shing	0.7	0.1	–	–	0.8	–	0.8
David Li Kwok-po	0.7	0.1	–	–	0.8	–	0.8
Poon Chung-kwong	0.7	–	–	–	0.7	–	0.7
Moses Cheng Mo-chi	0.7	–	–	–	0.7	–	0.7
Andrew Fung Hau-chung (note (iii))	0.1	–	–	–	0.1	–	0.1
	5.4	18.0	29.3	9.7	62.4	1.4	63.8

Notes

(i) Mr. Alfred Chan Wing-kin (before his retirement on 6th June 2022), 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"), 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 approximately of HK$0.1 million, HK$9.5 million, HK$6.7 million and HK$0.3 million (2021: HK$0.2 million, HK$8.5 million, HK$6.3 million and HK$0.1 million) respectively, including share-based payments benefits of HK$0.9 million and HK$0.5 million received by Mr. Peter Wong Wai-yee and Mr. John Ho Hong-ming respectively from Towngas Smart Energy during the year (2021: Nil).

(ii) Mr. Alfred Chan Wing-kin was retired and Mr. Peter Wong Wai-yee was appointed as Managing Director on 6th June 2022.

(iii) Mr. Andrew Fung Hau-chung was appointed as non-executive director of the Company on 14th June 2022.

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	Sub-total HK$'M	Others HK$'M	Total HK$'M
	Emoluments paid or payable to every director whether of the Company or its subsidiary undertaking						
2021							
Alfred Chan Wing-kin (Managing Director) (note (iv))	0.4	6.7	22.2	5.7	35.0	0.4	35.4
Peter Wong Wai-yee (Deputy Managing Director)	0.4	6.2	16.6	5.0	28.2	–	28.2
John Ho Hon-ming	0.4	5.3	6.0	2.3	14.0	–	14.0
Colin Lam Ko-yin	0.3	0.1	–	–	0.4	–	0.4
Lee Ka-kit	0.8	0.1	–	–	0.9	–	0.9
Lee Ka-shing	0.7	0.2	–	–	0.9	–	0.9
David Li Kwok-po	0.7	0.1	–	–	0.8	–	0.8
Poon Chung-kwong	0.7	–	–	–	0.7	–	0.7
Moses Cheng Mo-chi	0.7	–	–	–	0.7	–	0.7
	5.1	18.7	44.8	13.0	81.6	0.4	82.0

Note

(iv) During the year ended 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 US$2.2 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.

The above remuneration paid to directors of the Company also represents the amount of short-term employee benefits of HK$52.7 million (2021: HK$68.6 million), post-employment benefits of HK$9.7 million (2021: HK$13.0 million) and share-based payment benefits of HK$1.4 million (2021: HK$0.4 million) paid to the Group's key management personnel during the year ended 31st December 2022. There were no other long-term benefits and termination benefits paid to the Group's key management during the year (2021: 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 (2021: Nil).

13 Taxation

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

	2022 HK$'M	2021 HK$'M
Current taxation – provision for Hong Kong Profits Tax at the rate of 16.5% (2021: 16.5%) on the estimated assessable profits for the year	**815.5**	741.5
Current taxation – provision for other jurisdictions income tax at the prevailing rates on the estimated assessable profits for the year (note)	**837.6**	1,066.9
Current taxation – (over)/under provision in prior years	**(8.3)**	10.2
Deferred taxation – origination and reversal of temporary differences	**132.5**	210.8
Withholding tax	**81.9**	125.6
	1,859.2	2,155.0

Note

The prevailing income tax rates of the Chinese mainland and Thailand range from 15 per cent to 25 per cent (2021: 15 per cent to 25 per cent) and 50 per cent (2021: 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:

	2022 HK$'M	2021 HK$'M
Profit before taxation	**8,183.6**	8,380.7
Less: Share of results of associates	**(865.2)**	(1,885.6)
Share of results of joint ventures	**(201.5)**	(646.9)
	7,116.9	5,848.2
Calculated at a tax rate of 16.5% (2021: 16.5%)	**1,174.3**	965.0
Effect of different tax rates in other jurisdictions	**309.2**	374.6
Income not subject to taxation	**(236.3)**	(101.6)
Expenses not deductible for taxation purposes	**296.2**	629.1
Utilisation of previously unrecognised tax losses	**(19.8)**	(15.1)
(Over)/under provision in prior years	**(8.3)**	10.2
Withholding tax	**81.9**	125.6
Unrecognised tax losses and others	**262.0**	167.2
	1,859.2	2,155.0

Share of associates' taxation for the year ended 31st December 2022 of HK$590.4 million (2021: HK$556.1 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 2022 of HK$239.7 million (2021: HK$448.9 million) is included in the profit or loss as share of results of joint ventures.

14 Dividends

	2022 HK$'M	2021 HK$'M
Interim, paid of HK12 cents per ordinary share (2021: HK12 cents per ordinary share)	**2,239.2**	2,239.2
Final, proposed of HK23 cents per ordinary share (2021: HK23 cents per ordinary share)	**4,291.8**	4,291.8
	6,531.0	6,531.0

At a meeting held on 17th March 2023, the directors of the Company declared a final dividend of HK23 cents per ordinary share for the year ended 31st December 2022. 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 2022.

15 Earnings per share

The calculation of basic earnings per share is based on the profit attributable to shareholders of HK$5,247.9 million (2021: HK$5,017.0 million) and the weighted average of 18,659,870,098 shares (2021: 18,659,870,098 shares) in issue during the year. As there were no dilutive potential ordinary shares of the Company outstanding during the year, the weighted average number of shares used in calculating diluted earnings per share is the same as calculating basic earnings per share.

	2022 HK$'M	2021 HK$'M
Earnings		
Profit attributable to shareholders for the purpose of basic earnings per share	**5,247.9**	5,017.0
Effect of dilutive potential ordinary shares:		
Interests on convertible bonds, attributable to shareholders	**51.2**	–
Change in fair value of embedded derivative component of convertible bonds, attributable to shareholders	**(357.3)**	–
Reduction in share of subsidiaries' profits	**(37.5)**	–
Profit attributable to shareholders for the purpose of diluted earnings per share	**4,904.3**	5,017.0

The computation of diluted earnings per share for the year ended 31st December 2021 did 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 was the same as the basic earnings per share.

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 2022	31,338.4	52,301.4	4,588.4	3,474.1	1,078.8	11,821.0	104,602.1
Additions	1,082.1	744.0	256.6	34.4	20.8	5,701.8	7,839.7
Transfers from capital work in progress	1,916.3	3,415.5	46.7	2.4	–	(5,380.9)	–
Disposals/write off	(417.5)	(14.1)	(111.5)	(1.0)	(20.8)	(135.6)	(700.5)
Exchange differences	(1,845.3)	(3,100.6)	(18.2)	(192.1)	(81.5)	(729.4)	(5,967.1)
At 31st December 2022	32,074.0	53,346.2	4,762.0	3,317.8	997.3	11,276.9	105,774.2
Accumulated depreciation and impairment losses							
At 1st January 2022	13,087.0	13,422.3	3,330.3	1,407.3	244.5	889.2	32,380.6
Charge for the year	1,482.9	1,447.5	289.1	39.1	36.8	–	3,295.4
Impairment	–	–	–	–	–	68.8	68.8
Disposals/write off	(322.1)	(4.6)	(91.1)	(0.2)	(3.1)	–	(421.1)
Exchange differences	(637.1)	(649.9)	(8.5)	(54.4)	(21.5)	3.1	(1,368.3)
At 31st December 2022	13,610.7	14,215.3	3,519.8	1,391.8	256.7	961.1	33,955.4
Net book value							
At 31st December 2022	18,463.3	39,130.9	1,242.2	1,926.0	740.6	10,315.8	71,818.8
At 31st December 2021	18,251.4	38,879.1	1,258.1	2,066.8	834.3	10,931.8	72,221.5

The carrying values of the property, plant and equipment related to a chemical production project in the Chinese mainland as at 31st December 2022 amounted to approximately HK$2.6 billion (2021: HK$2.9 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. No such provision was made for the year ended 31st December 2022 for the property, plant and equipment.

The additions to property, plant and equipment mainly included HK$938.7 million (2021: HK$998.4 million) and HK$6,044.0 million (2021: HK$4,948.0 million) in relation to gas, water and related businesses in Hong Kong and the Chinese mainland respectively. Remaining balance mainly included HK$564.5 million (2021: HK$807.5 million) in relation to New Energy business segment and HK$292.5 million (2021: HK$222.5 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 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

17 Investment property

	2022 HK$'M	2021 HK$'M
At 1st January	**849.0**	827.0
Additions	**2.5**	–
Fair value gain (note 7)	**145.0**	22.0
At 31st December	**996.5**	849.0

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 2022 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 as at 31st December 2022 using significant unobservable inputs is as follows:

Unobservable inputs	Commercial complex	Car park	Relationship of unobservable inputs to fair value
Capitalisation rate	5.4%	5.4%	The higher the capitalisation rate, the lower the fair value
Monthly rent	HK$19.1/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 2022	**2,637.5**	**301.2**	**2,938.7**
Additions	**141.8**	**258.0**	**399.8**
Depreciation and amortisation	**(73.0)**	**(145.1)**	**(218.1)**
Impairment	**(21.2)**	**–**	**(21.2)**
Disposals	**(81.8)**	**(1.5)**	**(83.3)**
Exchange differences	**(183.6)**	**(19.0)**	**(202.6)**
At 31st December 2022	**2,419.7**	**393.6**	**2,813.3**

	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

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

		2022 HK$'M	2021 HK$'M
(a)	**Goodwill**		
	At 1st January	**5,103.6**	5,081.3
	Acquisition of businesses (note 42(a))	**–**	41.7
	Impairment	**–**	(114.4)
	Exchange differences	**(222.7)**	95.0
	At 31st December	**4,880.9**	5,103.6
(b)	**Other intangible assets**		
	Cost		
	At 1st January	**665.5**	522.9
	Acquisition of businesses (note 42(a))	**–**	103.1
	Additions	**13.4**	25.2
	Exchange differences	**(35.7)**	14.3
	At 31st December	**643.2**	665.5
	Accumulated amortisation		
	At 1st January	**(161.9)**	(141.3)
	Amortisation	**(23.9)**	(22.6)
	Exchange differences	**1.9**	2.0
	At 31st December	**(183.9)**	(161.9)
	Net book value		
	At 31st December	**459.3**	503.6
	Total intangible assets	**5,340.2**	5,607.2

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$2.2 billion (2021: HK$2.2 billion) related to the Group's investments in Towngas Smart Energy. The remaining balance mainly represents goodwill associated with individual city-gas projects (approximately HK$2.6 billion as of 31st December 2022) (2021: HK$2.7 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 as at the end of the reporting period.

Based on impairment tests performed, no impairment provision on goodwill was recognised for the year ended 31st December 2022 (2021: HK$114.4 million).

20 Subsidiaries

Material non-controlling interests

The total non-controlling interest as at 31st December 2022 is HK$11,527.0 million (2021: HK$12,028.2 million) of which HK$9,592.5 million (2021: HK$8,855.4 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	**2022 HK$'M**	2021 HK$'M
Assets		
Non-current assets	**40,962.4**	42,848.7
Current assets	**8,183.8**	7,535.9
	49,146.2	50,384.6
Liabilities		
Non-current liabilities	**(12,415.8)**	(12,681.3)
Current liabilities	**(16,594.4)**	(16,257.6)
	(29,010.2)	(28,938.9)
Net assets	**20,136.0**	21,445.7

20 Subsidiaries (Continued)

Material non-controlling interests (Continued)

Summarised income statement and comprehensive income statement	2022 HK$'M	2021 HK$'M
Revenue	20,073.0	17,125.4
Profit before taxation	1,552.5	2,144.8
Taxation	(351.5)	(617.7)
Profit for the year	1,201.0	1,527.1
Other comprehensive (loss)/income	(2,290.1)	640.1
Total comprehensive (loss)/income	(1,089.1)	2,167.2
Total comprehensive (loss)/income attributable to non-controlling interests	(229.8)	898.2
Dividend paid to non-controlling shareholders	304.2	275.3

Summarised cash flows statement	2022 HK$'M	2021 HK$'M
Net cash from operating activities	1,339.6	2,253.0
Net cash used in investing activities	(3,165.4)	(7,858.1)
Net cash from financing activities	2,036.3	7,374.2
Net increase in cash and cash equivalents	210.5	1,769.1
Cash and cash equivalents at the beginning of the year	4,071.2	2,226.0
Effect of foreign exchange rate changes	(281.0)	76.1
Cash and cash equivalents at the end of the year	4,000.7	4,071.2

21 Associates

	2022 HK$'M	2021 HK$'M
Investments in associates, including goodwill	**33,501.9**	35,407.2
Loans to associates – non-current	**676.2**	742.7
	34,178.1	36,149.9
Loan and other receivables from associates – current	**415.6**	418.8
Fair value of listed investments	**10,396.2**	13,352.2

As at 31st December 2022, 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$18,609.6 million, HK$89.4 million, HK$14,770.6 million and HK$32.3 million respectively (2021: HK$20,268.0 million, HK$263.5 million, HK$14,842.9 million and HK$32.8 million respectively).

Loan and other receivables from associates are analysed below:

(i) Loans to associates in the Chinese mainland of HK$1,012.0 million (2021: HK$1,062.8 million) with effective interest rates ranging from 3.0 per cent to 7.2 per cent per annum (2021: 3.0 per cent to 7.2 per cent per annum) are unsecured and fully repayable during the period from 2023 to 2025 (2021: 2022 to 2023).

(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:

	2022 HK$'M	2021 HK$'M
USD	**566.8**	567.0
RMB	**523.9**	593.0
HKD	**1.1**	1.5
	1,091.8	1,161.5

21 Associates (Continued)

Particulars of the principal associates as at 31st December 2022 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	27.8	PRC	Cooling and heating system business
[1] 蘇州工業園區蘇相合作區港華交通科技有限公司		RMB5.0 million	25	PRC	Electric vehicle charging
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
[1] 蘇州元朔智慧能源有限公司		RMB15.0 million	27	PRC	Integrated energy 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.		RMB470.4 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		RMB150.0 million	47.6	PRC	Natural gas pipeline project
S&T International Natural Gas Trading Company Limited		HK$21.0 million	40	Hong Kong	Natural gas trading

[1] Newly formed during the year

^ 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 associate.

21 Associates (Continued)

Particulars of the principal associates as at 31st December 2022 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
深圳市互通聯寬帶網絡有限公司		RMB40.0 million	30	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.		RMB100.0 million	49	PRC	Water treatment project
Guangzhou Science City-Towngas Smart Energy Co., Ltd.		RMB100.0 million	49	PRC	Zero-carbon smart industrial park project
常州港華智慧能源有限公司		RMB201.0 million	22.6	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*
Anguo Huagang Gas Company Limited		*RMB20.0 million*	*49*	*PRC*	*Gas sales and related businesses*
^ *Changchun Gas Co., Ltd.*		*RMB609.0 million*	*28.2*	*PRC*	*Gas sales and related businesses*
Dalian DETA Towngas Co., Ltd.		*RMB150.0 million*	*40*	*PRC*	*Gas sales and related businesses*
Ω *Foran Energy Group Co., Ltd.*		*RMB945.2 million*	*38.4*	*PRC*	*Gas sales and related businesses*
Shandong Jihua Gas Co., Ltd.		*RMB700.0 million*	*49*	*PRC*	*Gas sales and related businesses*
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
^ A listed company on the Shanghai Stock Exchange
Ω A listed company on the Shenzhen Stock Exchange

Note

(i) For the year ended 31st December 2022, the Group has entered into a shareholders' agreement with Shenergy (Group) Company Limited ("Shenergy Group"), the controlling shareholder of Shanghai Gas, pursuant to which the financial results of Shanghai Gas for the period from 1st January 2022 to 30th June 2022 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:

	2022 HK$'M	2021 HK$'M
Income	35,717.7	27,630.1
Expenses, including taxation	(34,852.5)	(25,744.5)
Profit after taxation	865.2	1,885.6
Other comprehensive loss	(11.5)	(3.5)
Total comprehensive income	853.7	1,882.1

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	2022 HK$'M	2021 HK$'M
Assets		
Non-current assets	113,404.9	113,764.1
Current assets	543.6	501.2
	113,948.5	114,265.3
Liabilities		
Non-current liabilities	(18,605.9)	(18,491.7)
Current liabilities	(1,800.0)	(1,767.5)
	(20,405.9)	(20,259.2)
Net assets	93,542.6	94,006.1

21 Associates (Continued)

Summarised income statement and statement of comprehensive income	CWPI 2022 HK$'M	CWPI 2021 HK$'M
Income	**4,734.9**	5,012.4
Expenses, including taxation	**(2,737.1)**	(2,279.3)
Profit after taxation	**1,997.8**	2,733.1
Other comprehensive loss	**(51.3)**	(22.0)
Total comprehensive income	**1,946.5**	2,711.1
Share of total comprehensive income (15.79%)	**307.4**	428.1
Dividend received from the associate	**380.5**	382.1

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 2022 HK$'M	CWPI 2021 HK$'M
Net assets		
At 1st January	**94,006.1**	93,715.0
Profit for the year	**1,997.8**	2,733.1
Other comprehensive loss	**(51.3)**	(22.0)
Dividend paid	**(2,410.0)**	(2,420.0)
At 31st December	**93,542.6**	94,006.1

	2022 HK$'M	2021 HK$'M
Carrying value		
Interest in an associate (15.79%)	**14,770.4**	14,843.6

22 Joint ventures

	2022 HK$'M	2021 HK$'M
Investments in joint ventures, including goodwill	**11,163.0**	12,575.2
Loan and other receivables from joint ventures – current	**612.8**	535.9
Loan from a joint venture – non-current	**(113.1)**	–
Loan and other payables to joint ventures – current	**(263.4)**	(189.5)

As at 31st December 2022, 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$11,148.5 million, HK$10.8 million and HK$3.7 million respectively (2021: HK$12,561.7 million, HK$10.2 million and HK$3.3 million respectively).

Loan and other receivables from joint ventures are analysed below:

(i) Loans to joint ventures in the Chinese mainland of HK$14.6 million (2021: HK$208.5 million) with effective interest rates of 4.35 per cent per annum (2021: 4.35 per cent per annum) are unsecured and fully repayable in 2023 (2021: 2022).

(ii) Loans to joint ventures in Hong Kong of HK$93.2 million (2021: HK$84.9 million) are unsecured, interest free 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 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:

	2022 HK$'M	2021 HK$'M
RMB	**519.6**	451.0
HKD	**93.2**	84.9
	612.8	535.9

Loan and other payables to joint ventures are analysed below:

(i) As at 31st December 2022, loan from a joint venture of HK$113.1 million with effective interest rate of 3.25 per cent per annum is unsecured and fully repayable in 2025 (2021: Nil).

(ii) Loans from joint ventures of HK$263.4 million (2021: HK$189.5 million) with effective interest rate of 2.15 per cent per annum (2021: 2.15 per cent per annum) are unsecured and have no fixed terms of repayment.

(iii) Loan and other payables to joint ventures are denominated in RMB (2021: denominated in RMB).

22 Joint ventures (Continued)

Particulars of the principal joint ventures as at 31st December 2022 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 Co., Ltd.	(i)	RMB200.0 million	55	PRC	Gas sales and related businesses
# Tongling Hong Kong and China Gas Company Limited	(i)	RMB100.0 million	70	PRC	Gas sales and related businesses
Wuhan Natural Gas Company Limited		RMB420.0 million	49	PRC	Gas sales and related businesses
# Xian Qinhua 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
江蘇港華交通科技有限公司		RMB50.0 million	50	PRC	New energy vehicle charging service
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 2022 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:

	2022 HK$'M	2021 HK$'M
Income	**20,431.7**	18,603.0
Expenses, including taxation	**(20,230.2)**	(17,956.1)
Profit after taxation and total comprehensive income	**201.5**	646.9

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

23 Financial assets at fair value through other comprehensive income

	2022 HK$'M	2021 HK$'M
Debt securities (note (a))	**87.1**	139.2
Equity securities (note (b))	**1,676.2**	2,031.3
	1,763.3	2,170.5

Notes

		2022 HK$'M	2021 HK$'M
(a)	Debt securities		
	Listed – Hong Kong	**13.8**	15.7
	Listed – outside Hong Kong	**73.3**	123.5
		87.1	139.2

		2022 HK$'M	2021 HK$'M
(b)	Equity securities		
	Listed – Hong Kong	**85.7**	163.7
	Listed – outside Hong Kong	**1,171.7**	1,435.3
	Unlisted	**418.8**	432.3
		1,676.2	2,031.3

Included in the equity securities, it comprises HK$72.0 million (2021: HK$128.5 million) of perpetual bonds and HK$1,604.2 million (2021: HK$1,902.8 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:

	2022 HK$'M	2021 HK$'M
RMB	**1,541.6**	1,810.7
HKD	**62.5**	92.0
USD	**159.2**	267.8
	1,763.3	2,170.5

24 Financial assets at fair value through profit or loss

	2022 HK$'M	2021 HK$'M
Debt securities – non-current (note (a))	**248.4**	284.2
Equity securities (note (b))		
– Current	**70.1**	–
– Non-current	**4,466.9**	4,763.4
	4,785.4	5,047.6

Notes

		2022 HK$'M	2021 HK$'M
(a)	Debt securities		
	Listed – outside Hong Kong	**248.4**	284.2

		2022 HK$'M	2021 HK$'M
(b)	Equity securities		
	Listed – Hong Kong	**0.3**	–
	Listed – outside Hong Kong	**1,218.0**	1,498.0
	Unlisted	**3,318.7**	3,265.4
		4,537.0	4,763.4

Included in the unlisted equity securities, it comprises HK$2,942.9 million (2021: HK$3,195.3 million) of investment in certain equity interests of an unlisted 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:

	2022 HK$'M	2021 HK$'M
HKD	**12.0**	–
USD	**11.4**	70.1
RMB	**4,762.0**	4,977.5
	4,785.4	5,047.6

25 Derivative financial instruments

	2022		2021	
	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	**34.4**	**(26.0)**	55.9	(80.3)
Foreign currency forward contracts – held-for-trading	**–**	**(6.1)**	5.2	–
Cross currency swap contracts – held-for-trading	**18.8**	**–**	7.9	–
Interest rate swap contracts – held-for-trading	**3.4**	**(61.5)**	–	–
Put option – held-for-trading (note 3)	**241.8**	**–**	262.8	–
Convertible bonds – embedded derivative component (note 32(b))	**–**	**(200.7)**	–	(776.6)
	298.4	**(294.3)**	331.8	(856.9)
Current				
Cross currency swap and interest rate swap contracts – cash flow hedges	**5.1**	**–**	–	(511.0)
Foreign currency forward contracts – held-for-trading	**0.8**	**–**	2.1	–
	5.9	**–**	2.1	(511.0)

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 loss of HK$3.6 million (2021: a gain of HK$4.9 million) (note 7).

The major terms of the outstanding derivative contracts held for hedging as at 31st December 2022 are as follows:

Notional amount	Maturity	Forward contract rate
Cross currency swap and interest rate swap contracts – cash flow hedges		
RMB1,585 million	**2023-2025**	**HKD1 to RMB0.8144 – RMB0.9060**
USD250 million	**2024-2027**	**USD1 to RMB6.3760 – RMB6.9270**
AUD25 million	**2025**	**AUD1 to HKD5.4200**
JPY2 billion	**2027**	**JPY100 to HKD6.8770**

Gains and losses recognised in the hedging reserve in equity (note 36) on the swaps as of 31st December 2022 will be continuously released to the profit or loss until the repayment of relevant borrowings.

26 Retirement benefit assets

	2022 HK$'M	2021 HK$'M
At 31st December	**134.7**	184.0

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:

	2022 HK$'M	2021 HK$'M
Fair value of plan assets	**577.4**	744.9
Present value of funded obligations	**(442.7)**	(560.9)
Net assets in the consolidated statement of financial position	**134.7**	184.0

The plan assets did not include any shares of the Company as at 31st December 2022 (2021: Nil).

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

	2022 HK$'M	2021 HK$'M
Current service cost	**13.4**	15.8
Net interest income	**(2.8)**	(1.1)
Total (note 11)	**10.6**	14.7

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

	2022 HK$'M	2021 HK$'M
Actuarial loss/(gain) due to liability experience	**3.7**	(22.7)
Actuarial gain due to financial assumption changes	**(108.9)**	(31.2)
Actuarial loss/(gain) due to demographic assumption changes	**0.1**	(0.1)
Actuarial gains	**(105.1)**	(54.0)
Return on plan assets, excluding amounts included in interest income	**147.6**	(28.8)
Total	**42.5**	(82.8)

26 Retirement benefit assets (Continued)

The movements in the defined benefit obligations are as follows:

	2022 HK$'M	2021 HK$'M
At 1st January	**560.9**	618.2
Current service cost	**13.4**	15.8
Interest cost	**8.1**	5.5
Benefits paid	**(34.6)**	(24.6)
Actuarial gains	**(105.1)**	(54.0)
At 31st December	**442.7**	560.9

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

	2022 HK$'M	2021 HK$'M
At 1st January	**744.9**	730.1
Return on plan assets, excluding amounts included in interest income	**(147.6)**	28.8
Interest income recognised in consolidated income statement	**10.9**	6.6
Contribution paid by employer	**3.8**	4.0
Benefits paid	**(34.6)**	(24.6)
At 31st December	**577.4**	744.9

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

	2022 HK$'M	2021 HK$'M
At 1st January	**184.0**	111.9
Remeasurement effects recognised in other comprehensive income	**(42.5)**	82.8
Total cost of defined benefit retirement scheme (note 11)	**(10.6)**	(14.7)
Contribution paid by employer	**3.8**	4.0
At 31st December	**134.7**	184.0

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

	2022 %	2021 %
Equity securities	**67.3**	85.3
Debt securities	**26.2**	12.1
Cash	**6.5**	2.6

26 Retirement benefit assets (Continued)

The principal actuarial assumptions used are as follows:

	2022 %	2021 %
Discount rate	3.7	1.5
Expected rate of future salary increases	3.5	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 1.9%	Increase by 2.0%
Salary increase rate	0.25%	Increase by 1.9%	Decrease by 1.9%
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 2023 are HK$3.5 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 8.1 years. Expected maturity analysis of benefit undiscounted payments:

	Within 5 years HK$'M	Beyond 5 years but within 10 years HK$'M	Beyond 10 years HK$'M
At 31st December 2022			
Expected benefit payments	**156.0**	**193.0**	**378.2**

27 Other non-current assets

	2022 HK$'M	2021 HK$'M
Aviation fuel facility construction receivable (note (a))	**3,848.2**	3,583.7
Other receivables and prepayments (note (b))	**2,509.8**	2,220.4
Deposit paid for acquisition of subsidiaries	**178.7**	–
	6,536.7	5,804.1

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$1,847.7 million (2021: HK$1,474.0 million) 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

	2022 HK$'M	2021 HK$'M
Stores and materials	**2,690.3**	2,425.9
Work in progress	**736.0**	714.8
	3,426.3	3,140.7

The Group wrote down the carrying value of inventories by HK$10.6 million (2021: HK$43.6 million) to its net realisable value during the year ended 31st December 2022.

29 Trade and other receivables

	2022 HK$'M	2021 HK$'M
Trade receivables (note (a))	**4,435.6**	4,211.8
Payments in advance (note (b))	**2,173.6**	1,783.4
Other receivables	**4,053.6**	3,153.7
	10,662.8	9,148.9

Trade and other receivables are denominated in the following currencies:

	2022 HK$'M	2021 HK$'M
RMB	**7,430.4**	6,299.1
HKD	**2,898.9**	2,734.3
USD	**326.2**	94.0
Others	**7.3**	21.5
	10,662.8	9,148.9

Notes

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

	2022 HK$'M	2021 HK$'M
0-30 days	**3,924.7**	3,726.0
31-60 days	**132.2**	101.5
61-90 days	**95.1**	101.2
Over 90 days	**283.6**	283.1
	4,435.6	4,211.8

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 further increased from HK$246.2 million to HK$286.4 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 2022, the directors of the Company reviewed the composition of the balance and considered the amount is recoverable.

30 Time deposits, cash and bank balances

	2022 HK$'M	2021 HK$'M
Time deposits over three months	52.3	77.9
Time deposits up to three months	5,332.7	1,181.6
Cash and bank balances	7,908.5	9,375.4
	13,241.2	10,557.0

The average effective interest rates on time deposits in Hong Kong and the Chinese mainland are 3.15 per cent and 1.64 per cent per annum respectively (2021: 0.73 per cent and 2.08 per cent per annum respectively). These deposits have average maturity dates within 59 days (2021: 72 days).

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

	2022 HK$'M	2021 HK$'M
RMB	7,815.8	8,464.2
USD	4,158.6	1,076.0
HKD	810.2	1,064.2
THB	497.3	19.6
Others	11.6	10.9
	13,293.5	10,634.9

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

	2022 HK$'M	2021 HK$'M
Trade payables (note (a))	4,272.7	4,120.9
Other payables and accruals (note (b))	5,600.4	5,368.9
Contract liabilities (note (c))	8,583.1	8,894.8
Lease liabilities (note (d))	154.2	103.0
Preferred shares (note (e))	3,393.9	–
	22,004.3	18,487.6

31 Trade payables and other liabilities (Continued)

Notes

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

	2022 HK$'M	2021 HK$'M
0-30 days	**1,773.6**	1,790.5
31-60 days	**552.1**	583.2
61-90 days	**572.0**	617.6
Over 90 days	**1,375.0**	1,129.6
	4,272.7	4,120.9

(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:

	2022 HK$'M	2021 HK$'M
Revenue recognised that was included in the contract liabilities balance at the beginning of the year	**4,568.2**	4,075.4

(d) As at 31st December 2022, the weighted average incremental borrowing rate applied to the lease liabilities were 3.0 per cent (2021: 3.0 per cent) for leases in Hong Kong and 5.0 per cent (2021: 5.0 per cent) for leases in the Chinese mainland.

(e) As at 31st December 2022, balance represents the carrying value of preferred shares issued by EcoCeres, Inc., a non-wholly owned subsidiary of the Group, during the current year. The preferred shares are financial liabilities which are measured at fair value through profit or loss.

(f) As at 31st December 2022, the amount of unsatisfied performance obligations expected to be recognised within one year and after one year are HK$4,054.3 million (2021: HK$3,462.8 million) and HK$4,898.2 million (2021: HK$5,740.6 million) respectively.

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

	2022 HK$'M	2021 HK$'M
RMB	**15,823.0**	15,686.1
HKD	**2,434.7**	2,535.2
USD	**3,730.8**	251.9
Others	**15.8**	14.4
	22,004.3	18,487.6

32 Borrowings

	2022 HK$'M	2021 HK$'M
Non-current		
Bank and other loans	**15,631.6**	16,232.8
Guaranteed notes (note (a))	**22,136.6**	18,666.5
Convertible bonds (note (b))	**1,854.9**	1,956.6
	39,623.1	36,855.9
Current		
Bank and other loans	**17,967.3**	15,623.0
Guaranteed notes (note (a))	**1,713.6**	2,632.2
	19,680.9	18,255.2
Total borrowings	**59,304.0**	55,111.1

Notes

(a) Guaranteed notes

Guarantee notes comprise the principal amounts of HK$19,520.5 million, USD200.0 million, RMB2,335.0 million, AUD25.0 million and JPY2,000.0 million (2021: HK$17,980.5 million, RMB1,635.0 million, AUD111.0 million and JPY12,000.0 million) which in aggregate is equivalent to HK$23,971.4 million (2021: HK$21,428.6 million). They were issued by HKCG (Finance) Limited or TCCL (Finance) Limited, subsidiaries of the Group. The notes are unsecured and guaranteed by the Company or Towngas Smart Energy as to repayment, mainly carry fixed coupon rates ranging from 0.35 per cent to 5.85 per cent per annum (2021: 0.35 per cent to 5.85 per cent per annum) payable quarterly, half-yearly or annually in arrear and have maturity terms between 2 to 40 years (2021: 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 2022 and 2021 (since date of issuance).

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. Effective from 12th July 2022, the conversion price of the convertible bonds has been adjusted from HK$6.33 per share to HK$6.26 per share as a result of aggregated distributions of HK$4.028 per share made by Towngas Smart Energy to the shareholders for the year ended 31st December 2021. Details of the adjustment to conversion price of the convertible bonds were set out in the Towngas Smart Energy's announcement dated 12th July 2022. 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, and (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% (2021: 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$'M	Embedded derivative component (note 25) HK$'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 (note 9)	9.3	–	9.3
Interest paid	(2.6)	–	(2.6)
Change in fair value (note 7)	–	358.6	358.6
As at 31st December 2021	1,956.6	776.6	2,733.2
Exchange differences	(156.6)	(44.4)	(201.0)
Interest expense (note 9)	77.1	–	77.1
Interest paid	(22.2)	–	(22.2)
Change in fair value (note 7)	–	(531.5)	(531.5)
As at 31st December 2022	1,854.9	200.7	2,055.6

32 Borrowings (Continued)

Notes (Continued)

(c) The maturity of borrowings is as follows:

	Bank and other loans		Guaranteed notes and convertible bonds	
	2022 HK$'M	2021 HK$'M	**2022 HK$'M**	2021 HK$'M
Within 1 year	**17,967.3**	15,623.0	**1,713.6**	2,632.2
Between 1 and 2 years	**3,579.9**	5,209.7	**4,257.9**	1,757.6
Between 2 and 5 years	**11,254.1**	10,540.8	**10,232.8**	7,666.1
Wholly repayable within 5 years	**32,801.3**	31,373.5	**16,204.3**	12,055.9
Wholly repayable over 5 years	**797.6**	482.3	**9,500.8**	11,199.4

As at 31st December 2022, the Group's borrowings amounted to HK$59,304.0 million (2021: HK$55,111.1 million). While the guaranteed notes, convertible bonds together with the bank and other loans of HK$11,859.8 million (2021: HK$9,522.1 million) mainly had fixed interest rate and were unsecured, the remaining bank and other loans were unsecured and had a floating interest rate, of which HK$8,295.5 million (2021: HK$10,221.4 million) were long-term bank loans and HK$13,443.5 million (2021: HK$12,112.3 million) had maturities within one year on revolving credit or term loan facilities. Guaranteed notes of HK$3,603.4 million (2021: HK$2,527.8 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:

	2022					2021				
	HKD	**USD**	**RMB**	**AUD**	**JPY**	HKD	USD	RMB	AUD	JPY
Bank and other loans	**5.2%**	**4.0%**	**3.7%**	**N/A**	**1.2%**	1.0%	4.0%	4.0%	N/A	1.2%
Guaranteed notes	**3.3%**	**4.6%**	**3.0%**	**3.0%**	**2.9%**	2.9%	N/A	2.1%	3.0%	3.3%
Convertible bonds	**N/A**	**N/A**	**4.0%**	**N/A**	**N/A**	N/A	N/A	4.0%	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:

	2022 HK$'M	2021 HK$'M
HKD	**31,872.8**	28,300.0
RMB	**25,221.1**	24,957.2
USD	**1,951.5**	401.2
AUD	**132.8**	628.3
JPY	**125.8**	824.4
	59,304.0	55,111.1

33 Deferred taxation

The movements in the deferred taxation are as follows:

	2022 HK$'M	2021 HK$'M
At 1st January	**7,225.4**	7,059.1
Charged to the profit or loss	**214.4**	336.4
Credited to other comprehensive income	**(33.0)**	(72.1)
Withholding tax	**(93.4)**	(84.8)
Exchange differences	**(386.7)**	(13.2)
At 31st December	**6,926.7**	7,225.4

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	**2022 HK$'M**	2021 HK$'M	**2022 HK$'M**	2021 HK$'M	**2022 HK$'M**	2021 HK$'M	**2022 HK$'M**	2021 HK$'M	**2022 HK$'M**	2021 HK$'M
At 1st January	**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
Charged/(credited) to the profit or loss	**195.5**	256.7	**5.1**	(6.1)	**(43.1)**	(38.1)	**56.9**	123.9	**214.4**	336.4
Credited to other comprehensive income	**–**	–	**–**	–	**(33.0)**	(72.1)	**–**	–	**(33.0)**	(72.1)
Withholding tax	**–**	–	**–**	–	**–**	–	**(93.4)**	(84.8)	**(93.4)**	(84.8)
Exchange differences	**(203.4)**	62.3	**(61.3)**	(140.0)	**(42.7)**	13.8	**(79.3)**	50.7	**(386.7)**	(13.2)
At 31st December	**4,235.7**	4,243.6	**1,288.4**	1,344.6	**498.0**	616.8	**923.7**	1,039.5	**6,945.8**	7,244.5

	Provisions		Tax losses		Total	
Deferred tax assets	**2022 HK$'M**	2021 HK$'M	**2022 HK$'M**	2021 HK$'M	**2022 HK$'M**	2021 HK$'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					**6,926.7**	7,225.4

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$1,054.0 million (2021: HK$927.7 million) in respect of losses amounting to HK$4,489.6 million (2021: HK$3,956.9 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$3,575.4 million (2021: HK$3,232.7 million) which will expire at various dates up to and including 2027 (2021: 2026).

34 Other non-current liabilities

	2022 HK$'M	2021 HK$'M
Customers' deposits (note (a))	**1,453.7**	1,434.0
Contract liabilities (note (b))	**867.6**	889.9
Loan and other payables to non-controlling shareholders	**169.4**	136.0
Lease liabilities (note (c))	**274.0**	223.3
Asset retirement obligations	**85.9**	73.5
	2,850.6	2,756.7

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	
	2022	2021	**2022** **HK$'M**	2021 HK$'M
Issued and fully paid:				
At beginning of year	**18,659,870,098**	17,771,304,856	**5,474.7**	5,474.7
Bonus shares	**–**	888,565,242	**–**	–
At end of year	**18,659,870,098**	18,659,870,098	**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 2022	551.3	(18.8)	3,484.8	40.8	57,893.6	61,951.7
Profit attributable to shareholders	–	–	–	–	5,247.9	5,247.9
Other comprehensive income:						
Movement in reserve of financial assets at FVOCI	(129.0)	–	–	–	–	(129.0)
Remeasurements of retirement benefit	–	–	–	–	(42.5)	(42.5)
Change in fair value of cash flow hedges	–	21.1	–	–	–	21.1
Share of other comprehensive loss of associates	(3.4)	(8.1)	–	–	–	(11.5)
Exchange differences	–	–	(4,757.4)	–	–	(4,757.4)
Total comprehensive income for the year	(132.4)	13.0	(4,757.4)	–	5,205.4	328.6
Capital injections in subsidiaries	–	–	–	–	55.4	55.4
Further acquisition of subsidiaries (note 42(b))	–	–	–	–	(37.7)	(37.7)
Share-based payments of subsidiaries	–	–	–	(32.6)	17.1	(15.5)
Deemed partial disposal of subsidiaries (note 41(d))	–	–	–	(3.3)	(30.8)	(34.1)
2021 final dividend paid	–	–	–	–	(4,291.8)	(4,291.8)
2022 interim dividend paid	–	–	–	–	(2,239.2)	(2,239.2)
Share award scheme of a subsidiary	–	–	–	35.4	–	35.4
At 31st December 2022	418.9	(5.8)	(1,272.6)	40.3	56,572.0	55,752.8
Balance after 2022 final dividend proposed	418.9	(5.8)	(1,272.6)	40.3	52,280.2	51,461.0
2022 final dividend proposed	–	–	–	–	4,291.8	4,291.8
	418.9	(5.8)	(1,272.6)	40.3	56,572.0	55,752.8

36 Reserves (Continued)

	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 (note 41(d))	–	–	–	–	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	52,280.2	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 in the equity interest in Towngas Smart Energy, 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.

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. Subject to the terms and conditions of the Scheme and the fulfilment of all vesting conditions, the award shares held by the trustee of the Scheme on behalf of a selected participant shall vest in such selected participant and the trustee shall transfer the award shares to such selected participant.

At 31st December 2022, there are 10,737,000 shares (2021: 3,772,000 shares) held by the trustee. During the year ended 31st December 2022, an additional 6,965,000 shares (2021: 3,772,000 shares) were purchased by the trustee from the market at an average price of approximately HK$4.29 per share (2021: HK$5.28 per share), with an aggregate amount of HK$29,897,000 (2021: HK$19,928,000). No shares were granted to eligible employees pursuant to the Scheme during both years.

37 Perpetual capital securities

In February 2019, the Group issued the perpetual capital securities, amounting to US$300 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 respective 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 2022 and 2021.

39 Commitments

(a) Capital expenditures for property, plant and equipment

	2022 **HK$'M**	2021 HK$'M
Contracts had been entered into but not brought into the consolidated financial statements at 31st December	**5,491.0**	5,868.7

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

	2022 **HK$'M**	2021 HK$'M
Contracts had been entered into but not brought into the consolidated financial statements at 31st December	**4,488.4**	4,470.0

(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 2022, the Group's commitments to these projects were approximately HK$7,543.2 million (2021: HK$5,142.1 million).

39 Commitments (Continued)

(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 2022 and 2021, future aggregate minimum lease payments receivable under non-cancellable operating leases are as follows:

	2022 HK$'M	2021 HK$'M
Not later than 1 year	22.2	21.3
Later than 1 year and not later than 5 years	22.7	17.6
Later than 5 years	0.5	–
	45.4	38.9

40 Related party transactions

Henderson Land Development Company Limited ("Henderson") is a related party of the Group by virtue of its significant interest in and influence over the Group. Other related parties include subsidiaries of Henderson and one bank with a common director with the Company during the year. During the year, the transactions carried out and year end balances with the associates, joint ventures and other related parties are shown as follows:

(a) Interest income and sale of goods and services

	2022 HK$'M	2021 HK$'M
Associates		
Sale of goods and services (note (i))	426.6	204.7
Loan interest income (note (ii))	38.0	49.9
Joint ventures		
Sale of goods and services (note (i))	436.9	431.4
Loan interest income (note (ii))	2.1	1.6
Other related parties		
Sale of goods and services (note (i) and (iii))	233.5	112.4

40 Related party transactions (Continued)

(b) Interest expense and purchase of goods and services

	2022 HK$'M	2021 HK$'M
Associates		
Purchase of goods and services (note (i))	**322.8**	443.1
Joint ventures		
Purchase of goods and services (note (i))	**22.3**	33.7
Loan interest expenses (note (ii))	**4.3**	15.3
Other related parties		
Purchase of goods and services (note (i))	**10.1**	9.8
Interest expense on bank loans (note (i))	**2.2**	0.2

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$135.7 million (2021: HK$40.8 million) that are also connected transactions under the Listing Rules.

(c) Year end balances arising from interest expense and sale of goods and services to other related parties

	2022 HK$'M	2021 HK$'M
Bank loans and interest payables	**497.3**	40.6
Trade receivables	**2.5**	3.0

Note

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

(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

	2022 HK$'M	2021 HK$'M
Profit before taxation	**8,183.6**	8,380.7
Share of results of associates	**(865.2)**	(1,885.6)
Share of results of joint ventures	**(201.5)**	(646.9)
Fair value gain on investment property	**(145.0)**	(22.0)
Impairment loss of trade receivables	**73.9**	39.7
Provision for assets	**240.0**	1,531.7
Ineffective portion on cash flow hedges	**3.6**	(4.9)
Interest income	**(204.5)**	(171.0)
Interest expense	**1,775.8**	1,408.2
Dividend income from investments in securities	**(167.7)**	(153.3)
Depreciation and amortisation	**3,525.4**	3,288.6
Loss on disposal/write off of property, plant and equipment	**210.8**	18.4
Loss/(gain) on disposal of right-of-use assets	**34.9**	(26.0)
Net realised and unrealised gains on financial assets at FVOCI	**(0.3)**	(1.7)
Net realised and unrealised losses on financial assets at FVPL and derivative financial instruments	**183.0**	52.7
Change in fair value of embedded derivative component of convertible bonds	**(531.5)**	358.6
Share-based payments	**(13.5)**	36.5
Tax paid	**(1,260.3)**	(2,197.8)
Exchange differences	**91.4**	(81.7)
Changes in working capital		
Increase in customers' deposits	**19.7**	92.3
Increase in inventories	**(401.3)**	(385.9)
Increase in trade and other receivables	**(2,153.2)**	(161.7)
Increase in trade payables and other liabilities	**1,227.4**	985.5
Increase in asset retirement obligations	**12.4**	4.4
Changes in retirement benefit assets	**6.8**	10.7
Net cash from operating activities	**9,644.7**	10,469.5

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 2021	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
Cash flows	(151.4)	5,734.3
Exchange differences	(21.7)	(1,985.1)
Other non-cash movement	275.0	443.7
At 31st December 2022	428.2	59,304.0

(c) During the year ended 31st December 2022, total cash outflow for lease was included in the statement of cash flows in (a) interest paid of HK$18.9 million (2021: HK$13.5 million) under "financing activities", (b) principal elements of lease payments of HK$132.5 million (2021: HK$141.6 million) under "financing activities".

(d) During the year ended 31st December 2022, Towngas Smart Energy issued shares to employees of the Group for a proceed of HK$42.6 million. EcoCeres, Inc., a subsidiary of the Group also issued shares to investors for a proceed of HK$98.9 million. The net loss of HK$34.1 million (note 36) arising from these transactions with non-controlling interests was directly recognised in reserves.

During the year ended 31st December 2021, 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 (note 36) arising from these transactions with non-controlling interests was directly recognised in reserves.

42 Business combinations

(a) Business combinations in 2021

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 did not have a significant impact of the Group's turnover and profit for the year ended 31st December 2021.

42 Business combinations (Continued)

(a) Business combinations in 2021 (Continued)

The details of fair value of net identifiable assets acquired were as follows:

	Acquirees' 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 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 was 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$34.4 million (2021: HK$50.0 million). The difference between the share of net assets value acquired and total consideration of HK$37.7 million (2021: 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 2022.

43 Statement of financial position of the Company

	2022 HK$'M	2021 HK$'M
Assets		
Non-current assets		
Property, plant and equipment	**12,994.0**	12,895.9
Right-of-use assets	**265.0**	263.0
Intangible assets	**13.4**	–
Subsidiaries	**26,926.0**	24,670.7
Associate	**664.7**	664.7
Joint ventures	**831.7**	831.7
Retirement benefit assets	**134.7**	184.0
	41,829.5	39,510.0
Current assets		
Inventories	**1,210.1**	1,187.0
Trade and other receivables	**2,466.8**	2,313.1
Loan and other receivables from associates	**22.4**	22.4
Other receivables from joint ventures	**37.6**	27.9
Derivative financial instruments	**0.3**	1.3
Time deposits up to three months, cash and bank balances	**1,274.7**	898.5
	5,011.9	4,450.2
Current liabilities		
Trade payables and other liabilities	**(1,855.7)**	(1,817.4)
Provision for taxation	**(670.2)**	(162.6)
Borrowings	**(2,672.4)**	(1,250.0)
	(5,198.3)	(3,230.0)
Total assets less current liabilities	**41,643.1**	40,730.2
Non-current liabilities		
Loan and other payables to subsidiaries	**(22,345.6)**	(18,341.7)
Deferred taxation	**(1,503.8)**	(1,487.9)
Borrowings	**–**	(1,493.9)
Derivative financial instruments	**(1.5)**	–
Other non-current liabilities	**(1,455.8)**	(1,432.9)
	(25,306.7)	(22,756.4)
Net assets	**16,336.4**	17,973.8

43 Statement of financial position of the Company (Continued)

	2022 HK$'M	2021 HK$'M
Capital and reserves		
Share capital	**5,474.7**	5,474.7
Retained profits (note (a))	**10,861.7**	12,499.1
	16,336.4	17,973.8

Approved by the Board of Directors on 17th March 2023

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 2022	**12,499.1**
Profit attributable to shareholders	**4,936.1**
Other comprehensive income:	
Remeasurements of retirement benefit	**(42.5)**
Total comprehensive income for the year	**17,392.7**
2021 final dividend paid	**(4,291.8)**
2022 interim dividend paid	**(2,239.2)**
At 31st December 2022	**10,861.7**
Balance after 2022 final dividend proposed	**6,569.9**
2022 final dividend proposed	**4,291.8**
	10,861.7
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

44 Event after the reporting period

On 16th March 2023, Towngas Smart Energy entered into a legally binding memorandum of understanding ("MOU") with Shenergy Group and Shanghai Gas, pursuant to which the parties agreed to the exit of Towngas Smart Energy from its entire investment of 25% equity interest in Shanghai Gas through a reduction of the capital of Shanghai Gas by the amount held by Towngas Smart Energy, the specific arrangements of which are subject to a definitive agreement to be signed between the parties. Shanghai Gas is owned as to 25% by Towngas Smart Energy and 75% by Shenergy Group. Such 25% equity interest (represented by RMB333,333,333 in the registered capital of Shanghai Gas) was acquired by Towngas Smart Energy through a capital contribution of RMB4,700,000,000 to Shanghai Gas completed in July 2021.

The consideration payable to Towngas Smart Energy for the exit is to be agreed between the parties to the MOU (and to be set out in the definitive agreement) based on a valuation of Shanghai Gas as at 28th February 2023 to be conducted by a valuer and subject to the receipt of the required government and regulatory approvals. Pursuant to the MOU, from 1st March 2023, Towngas Smart Energy has ceased to have any rights and responsibilities of a shareholder of Shanghai Gas, unless the exit is not completed for any reason. The parties agreed to submit the application documents in relation to the exit to the relevant authorities before 30th June 2023. If the exit is not completed by 31st December 2023, the MOU will be automatically terminated unless agreed otherwise between the parties.

For details of the exit, please refer to the Company's joint voluntary announcement dated 16th March 2023.

Apart from the above event, there have been no other material events occurring after the reporting date.

Subsidiaries

The following is a list of the principal subsidiaries as at 31st December 2022:

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 on 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
Jiangsu Jinzhuo Construction Engineering Co., Ltd.	RMB100.0 million	63	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

Direct subsidiaries of the Company
† Wholly foreign-owned enterprises
1 Newly formed during the year

Subsidiaries (Continued)

The following is a list of the principal subsidiaries as at 31st December 2022: (Continued)

Name	Issued share capital/ Registered capital	Percentage of issued/ registered capital held	Place of incorporation/ operation	Principal activity
Gas, water and related businesses on the Chinese mainland (Continued)				
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
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
†1上海恒素健康管理有限公司	RMB25.0 million	100	PRC	Health management 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	3,258,615,526 shares of HK$0.1 each	66.4	Cayman Islands/ Hong Kong	Investment holding
†1名氣家投資（深圳）有限公司	RMB215.0 million	100	PRC	Investment holding
1Towngas Zero Carbon (Tianjin) Investment Partnership (Limited Partner)	RMB251.0 million	100	PRC	Investment platform
†1港華（深圳）能源管理有限公司	RMB1.0 million	100	PRC	Investment platform
丹陽卓惠洗滌有限公司	RMB20.0 million	80	PRC	Laundry business
†南京卓惠洗滌有限公司	RMB1.6 million	100	PRC	Laundry business
唐山卓惠洗滌有限公司	RMB20.0 million	80	PRC	Laundry business
鄭州卓惠洗滌有限公司	RMB15.0 million	80	PRC	Laundry business
†1上海港燃能源集團有限公司	RMB0.6 million	100	PRC	Leasee of an office
†唐山皓華貿易有限公司	RMB500.0 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

† Wholly foreign-owned enterprises
1 Newly formed during the year
* 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 2022: (Continued)

Name	Issued share capital/ Registered capital	Percentage of issued/ registered capital held	Place of incorporation/ operation	Principal activity
Gas, water and related businesses on the Chinese mainland (Continued)				
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*
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*

† Wholly foreign-owned enterprises

Subsidiaries (Continued)

The following is a list of the principal subsidiaries as at 31st December 2022: (Continued)

Name	Issued share capital/ Registered capital	Percentage of issued/ registered capital held	Place of incorporation/ operation	Principal activity
Gas, water and related businesses on the Chinese mainland (Continued)				
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. (Continued)				
†*Dalian Lvshun Hong Kong and China Gas Co. Ltd.*	*US$15.0 million*	*100*	*PRC*	*Gas sales and related businesses*
†*Dalian Taipingwan Hong Kong and China Gas Company Limited*	*RMB40.0 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*

† Wholly foreign-owned enterprises

Subsidiaries (Continued)

The following is a list of the principal subsidiaries as at 31st December 2022: (Continued)

Name	Issued share capital/ Registered capital	Percentage of issued/ registered capital held	Place of incorporation/ operation	Principal activity
Gas, water and related businesses on the Chinese mainland (Continued)				
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. (Continued)				
†*Laiyang Hong Kong and China Gas Co., Ltd.*	*US$11.5 million*	*100*	*PRC*	*Gas sales and related businesses*
†*Lezhi Hong Kong and China Gas Company Limited*	*RMB30.0 million*	*100*	*PRC*	*Gas sales and related businesses*
†*Liuzhou Hong Kong & China Gas Co., Ltd.*	*RMB50.0 million*	*100*	*PRC*	*Gas sales and related businesses*
†*Longkou Hongkong and China Gas Company Limited*	*US$7.1 million*	*100*	*PRC*	*Gas sales and related businesses*
†*Luliang Hong Kong & China Gas Company Limited*	*RMB52.0 million*	*100*	*PRC*	*Gas sales and related businesses*
Maanshan Bowang Hong Kong & China Gas Co., Ltd.	*US$10.0 million*	*75.1*	*PRC*	*Gas sales and related businesses*
†*Maanshan Jiangbei Hong Kong and China Towngas Company Limited*	*US$10.0 million*	*100*	*PRC*	*Gas sales and related businesses*
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*

† Wholly foreign-owned enterprises

Subsidiaries (Continued)

The following is a list of the principal subsidiaries as at 31st December 2022: (Continued)

Name	Issued share capital/ Registered capital	Percentage of issued/ registered capital held	Place of incorporation/ operation	Principal activity
Gas, water and related businesses on the Chinese mainland (Continued)				
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. (Continued)				
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	*RMB333.0 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 2022: (Continued)

Name	Issued share capital/ Registered capital	Percentage of issued/ registered capital held	Place of incorporation/ operation	Principal activity
Gas, water and related businesses on the Chinese mainland (Continued)				
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. (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*
†[1]*本溪滿族自治縣港華天然氣有限公司*	*RMB40.0 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*

† Wholly foreign-owned enterprises

1 Newly formed during the year

Subsidiaries (Continued)

The following is a list of the principal subsidiaries as at 31st December 2022: (Continued)

Name	Issued share capital/ Registered capital	Percentage of issued/ registered capital held	Place of incorporation/ operation	Principal activity
Gas, water and related businesses on the Chinese mainland (Continued)				
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. (Continued)				
[†]*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*
[†1]*內蒙古港華天燃氣有限公司*	*RMB2.0 million*	*100*	*PRC*	*Gas sales and related businesses*
平昌港華燃氣有限公司	*RMB20.0 million*	*90*	*PRC*	*Gas sales and related businesses*
齊齊哈爾港華燃氣有限公司	*RMB128.6 million*	*61.7*	*PRC*	*Gas sales and related businesses*
[†]*三台港華燃氣有限公司*	*RMB30.0 million*	*100*	*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*	*RMB2,250.0 million*	*100*	*PRC*	*Investment holding*
[†]*Towngas Investments Limited*	*US$200.0 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

1 Newly formed during the year

Subsidiaries (Continued)

The following is a list of the principal subsidiaries as at 31st December 2022: (Continued)

Name	Issued share capital/ Registered capital	Percentage of issued/ registered capital held	Place of incorporation/ operation	Principal activity
Smart Energy businesses				
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.				
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*	*100*	*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*
濬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*

ʃ The Group can exercise control over the boards of directors in these subsidiaries

† Wholly foreign-owned enterprises

Subsidiaries (Continued)

The following is a list of the principal subsidiaries as at 31st December 2022: (Continued)

Name	Issued share capital/ Registered capital	Percentage of issued/ registered capital held	Place of incorporation/ operation	Principal activity
Smart Energy businesses (Continued)				
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. (Continued)				
†*Anqiu Towngas China PV Power Generation Co., Ltd.*	*RMB47.0 million*	*100*	*PRC*	*Smart energy businesses*
†*Ben Xi Towngas China Energy Co., Ltd.*	*RMB100.0 million*	*100*	*PRC*	*Smart energy businesses*
†*Binzhou Xinrunfeng New Energy Co., Ltd.*	*RMB15.0 million*	*100*	*PRC*	*Smart energy businesses*
Dangtu Towngas China Energy Co., Ltd.	*RMB30.0 million*	*75*	*PRC*	*Smart energy businesses*
Danyang Towngas China Energy Storage Power Plant Co., Ltd.	*RMB30.0 million*	*90*	*PRC*	*Smart energy businesses*
Fuxin Towngas China Energy Co., Ltd.	*RMB145.0 million*	*58*	*PRC*	*Smart energy businesses*
Liyang Hengdian Towngas China PV Power Generation Co., Ltd.	*RMB22.5 million*	*60*	*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*
†*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*
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*
†*Tangshan Towngas China Integrated Energy Co., Ltd.*	*RMB150.0 million*	*100*	*PRC*	*Smart energy businesses*
†*Wuhan Towngas China Energy Co., Ltd.*	*RMB120.0 million*	*100*	*PRC*	*Smart energy businesses*
†*Yancheng Towngas China Smart Energy Co., Ltd.*	*RMB34.0 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*
†*崇陽禾沐新能源科技有限公司*	*RMB10.0 million*	*100*	*PRC*	*Smart energy businesses*
†*港華（深圳）碳資產運營有限公司*	*RMB40.0 million*	*100*	*PRC*	*Smart energy businesses*
港華時代智慧能源科技（蘇州）有限公司	*RMB20.0 million*	*65*	*PRC*	*Smart energy businesses*
濟寧港華智慧能源有限公司	*RMB200.0 million*	*85*	*PRC*	*Smart energy businesses*
†*聊城港能投光伏發電有限公司*	*RMB60.0 million*	*100*	*PRC*	*Smart energy businesses*

† Wholly foreign-owned enterprises

1 Newly formed during the year

Subsidiaries (Continued)

The following is a list of the principal subsidiaries as at 31st December 2022: (Continued)

Name	Issued share capital/ Registered capital	Percentage of issued/ registered capital held	Place of incorporation/ operation	Principal activity
New Energy businesses				
ECO Aviation Fuel Development Limited	HK$2	100	Hong Kong	Aviation fuel facility
ECO Aviation Fuel Services Limited	HK$10,000	100	Hong Kong	Aviation fuel facility
內蒙古易高煤化科技有限公司	RMB2,366.2 million	100	PRC	Chemical business
†Inner Mongolia Ke Jian Coal Company Limited	RMB486.0 million	100	PRC	Coal related business
Qinhuangdao YiTeng Trade Co., Ltd.	RMB129.1 million	100	PRC	Coal related business
易高清潔能源管理服務（西安）有限公司	RMB9.2 million	100	PRC	Consultancy service
†ECO Environmental Energy Investments Limited	US$100.0 million	100	PRC	Investment holding
EcoCeres, Inc.	US$38,671.3	65.5	Cayman Islands	Investment holding
†Yi An (Inner Mongolia) Holding Co., Ltd	US$238.2 million	100	PRC	Investment holding
Shanxi ECO Coalbed Methane Co., Ltd.	RMB200.0 million	70	PRC	LNG business
Xuzhou ECO ZhongTai New Energy Co., Ltd.	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.	THB 425.0 million	100	Thailand	Oil business
†ECO Services Management Company Limited	RMB80.0 million	100	PRC	Project management
易高環保能源科技（張家港）有限公司	RMB$41.2 million	100	PRC	Research and development
†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
The following subsidiaries are held by EcoCeres, Inc. and the respective equity interest held by EcoCeres, Inc. is shown accordingly.				
†1怡創低碳科技（張家港）有限公司	*US$2.0 million*	*100*	*PRC*	*Biomass utilisation*
ECO Biochemical Technology (Zhangjiagang) Company Limited	*US$67.0 million*	*100*	*PRC*	*Biomass utilisation*
†Hebei ECO Biofuel Company Limited	*RMB244.8 million*	*100*	*PRC*	*Biomass utilisation*
†Hebei ECO Bioenergy Company Limited	*RMB232.3 million*	*100*	*PRC*	*Biomass utilisation*
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 advanced biofuel*
1EcoCeres Renewable Fuels Sdn. Bhd.	*MYR125.2 million*	*100*	*Malaysia*	*Production and trading of advanced biofuel*

† Wholly foreign-owned enterprises

1 Newly formed during the year

Subsidiaries (Continued)

The following is a list of the principal subsidiaries as at 31st December 2022: (Continued)

Name	Issued share capital/ Registered capital	Percentage of issued/ registered capital held	Place of incorporation/ operation	Principal activity
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	RMB109.0 million	100	PRC	Gas meter and related businesses
1 P-Tech Landfill Gas (NENT Extension) Company Limited	HK$100	100	Hong Kong	Landfill gas project
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
G-Tech Piping Company Limited	HK$100	100	Hong Kong	PE piping system business
† 卓通管道系統（中山）有限公司	RMB41.0 million	100	PRC	PE piping system business
Starmax Assets Limited	HK$90.0 million	100	British Virgin Islands/ Hong Kong	Property development
† 珠海卓銳高科信息技術有限公司	RMB7.0 million	100	PRC	System development & consulting services
卓銳智高（武漢）科技有限公司	RMB51.2 million	100	PRC	System development & consulting services

\# Direct subsidiaries of the Company

† Wholly foreign-owned enterprises

1 Newly formed during the year

Subsidiaries (Continued)

The following is a list of the principal subsidiaries as at 31st December 2022: (Continued)

Name	Issued share capital/ Registered capital	Percentage of issued/ registered capital held	Place of incorporation/ operation	Principal activity
Other businesses (Continued)				
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
Towngas Chibo Data Service (Jinan) Co., Ltd.	RMB200.0 million	92.1	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) Company 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	99.2	PRC	Telecommunications business
†大連名氣通數據服務有限公司 (formerly known as 大連億達名氣通數據服務有限公司)	RMB125.0 million	100	PRC	Telecommunications business
東莞名氣通數據服務有限公司 (formerly known as TGT Union Financial Data Services (Dongguan) Co., Ltd.)	RMB129.0 million	75.2	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	RMB293.0 million	100	PRC	Telecommunications business
卓明信息（深圳）有限公司	RMB49.0 million	100	PRC	Telecommunications business

† Wholly foreign-owned enterprises

Subsidiaries (Continued)

The following is a list of the principal subsidiaries as at 31st December 2022: (Continued)

Name	Issued share capital/ Registered capital	Percentage of issued/ registered capital held	Place of incorporation/ operation	Principal activity
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
#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$14.0 million	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
The following subsidaries engaged in financing & securities investments are held by Towngas Smart Energy and the respective equity interest held by Towngas Smart Energy is shown accordingly.				
TCCL (Finance) Limited	*HK$1*	*100*	*Hong Kong*	*Financing*
TCCL (Project Finance) Limited	*HK$100*	*100*	*Hong Kong*	*Financing*

Direct subsidiaries of the Company

Subsidiaries (Continued)

The following is a list of the principal subsidiaries as at 31st December 2022: (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 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
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

Subsidiaries (Continued)

The following is a list of the principal subsidiaries as at 31st December 2022: (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 (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
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/ Hong Kong	Investment holding
Hong Kong & China Water (Suzhou) Limited	US$1	100	British Virgin Islands/ Hong Kong	Investment holding
Hong Kong & China Water (Wujiang) Limited	US$1	100	British Virgin Islands/ Hong Kong	Investment holding
Hong Kong & China Water Limited (carrying on business in Hong Kong as Hua Yan Water (China) Limited)	US$1	100	British Virgin Islands/ Hong Kong	Investment holding
Hong Kong and China 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

Subsidiaries (Continued)

The following is a list of the principal subsidiaries as at 31st December 2022: (Continued)

Name	Issued share capital/ Registered capital	Percentage of issued/ registered capital held	Place of incorporation/ operation	Principal activity
Investment holding (Continued)				
Hong Kong and China Gas (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
P-Tech Renewable Energy Limited (formerly known as ECO Renewable Energy Limited)	HK$100	100	Hong Kong	Investment holding
Sky Global Limited (carrying on business in Hong Kong as Hong Kong & China Gas (Jilin Gas) Limited)	US$100	100	British Virgin Islands/ Hong Kong	Investment holding
TGT 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

Subsidiaries (Continued)

The following is a list of the principal subsidiaries as at 31st December 2022: (Continued)

Name	Issued share capital/ Registered capital	Percentage of issued/ registered capital held	Place of incorporation/ operation	Principal activity
Investment holding (Continued)				
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/Hong Kong	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
[1] Towngas Lifestyle Holding Company Limited	HK$100	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
The following subsidiaries engaged in investment holding are held by Towngas Smart Energy and the respective equity interest held by Towngas Smart Energy is shown accordingly.				
[1] *TSEL (Gas) Holdings Limited*	*HK$100*	*100*	*Hong Kong*	*Investment holding*
[1] *TSEL (Gas) Investment Limited*	*HK$100*	*100*	*Hong Kong*	*Investment holding*

[#] Direct subsidiaries of the Company

[1] Newly formed during the year

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
Andrew Fung Hau-chung
David Li Kwok-po*
Poon Chung-kwong*
Moses Cheng Mo-chi*
Peter Wong Wai-yee
John Ho Hon-ming

* Independent Non-executive Director

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

Board Environmental, Social and Governance Committee

Peter Wong Wai-yee (Chairman)
Moses Cheng Mo-chi
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, 19th August 2022
Full-Year Results	Announced on Friday, 17th March 2023
Annual Report	Posted to Shareholders on Tuesday, 25th April 2023
Register of Members	(i) To be closed from Friday, 2nd June 2023 to Wednesday, 7th June 2023, for the purpose of determining entitlement of Shareholders to the right to attend and vote at the Annual General Meeting
	(ii) To be closed from Tuesday, 13th June 2023 to Thursday, 15th June 2023, for the purpose of determining Shareholders who qualify for the proposed final dividend
Annual General Meeting	To be held on Wednesday, 7th June 2023
Dividends – Interim	HK12 cents – Paid on Thursday, 15th September 2022
– Final (Proposed)	HK23 cents – Payable on Monday, 26th June 2023

Both printed English and Chinese versions of this Annual Report are available upon request from the Company and the Company's share registrar free of charge. The website version of this Annual Report is also available on the Company's website.

The Hong Kong and China Gas Company Limited
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