



Mainland Utility Businesses



A New Focus on Smart Energy

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

Mainland Utility Businesses

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

Our New Business Direction

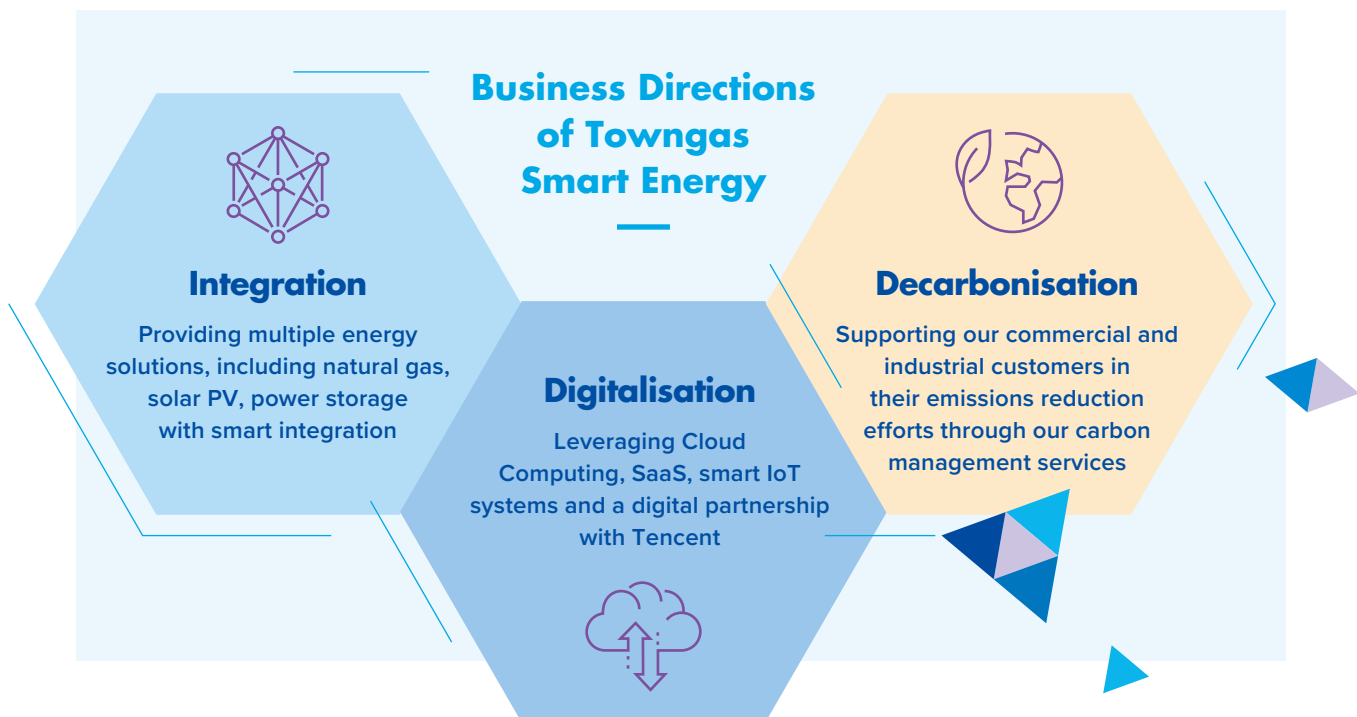
Since 1994 Towngas has been providing businesses and the people of the Chinese mainland with a clean, reliable and economic source of energy as well as products for a more comfortable and convenient way of life. Today,

we have become a leading gas supplier in the country, with 303 city-gas projects serving over 35 million customers in 24 provinces, autonomous regions and municipalities.

In an important move for the Group, during the year we began embarking in a new business

direction – renewable energy – that will reposition us as an integrated energy operator working towards the country's "30-60" decarbonisation goal of reaching peak carbon dioxide emissions by 2030 and achieving carbon neutrality by 2060.

In November 2021 our subsidiary company, Towngas China Company





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

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

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

Expanding into Zero-carbon Smart Industrial Parks

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

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

measurement, carbon trading and other carbon management services to help customers in zero-carbon smart industrial parks achieve decarbonisation and green governance.

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



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

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

Clean Energy, Steady Progress

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

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

accounted for 368 million cubic metres of our total gas sales, an increase of 39 per cent from the year before.

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

Midstream and Upstream Businesses

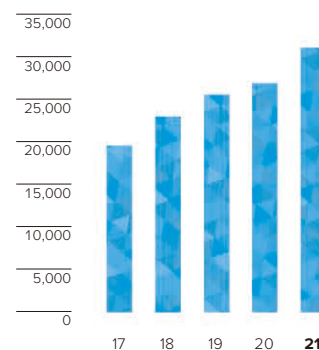
Our investments in midstream and upstream projects include long-haul pipelines, gas storage facilities and liquefied natural gas (LNG) terminals, which help us make purchases of gas from diversified sources to guarantee supply and save costs.

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

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

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

China Joint Ventures Gas Sales (million m³)



including the China-Russia East Line and Qin-Shen Line, as well as the natural gas pipeline in Hebei province.

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



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

Mainland Utility Businesses

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

Water and Environmental Business

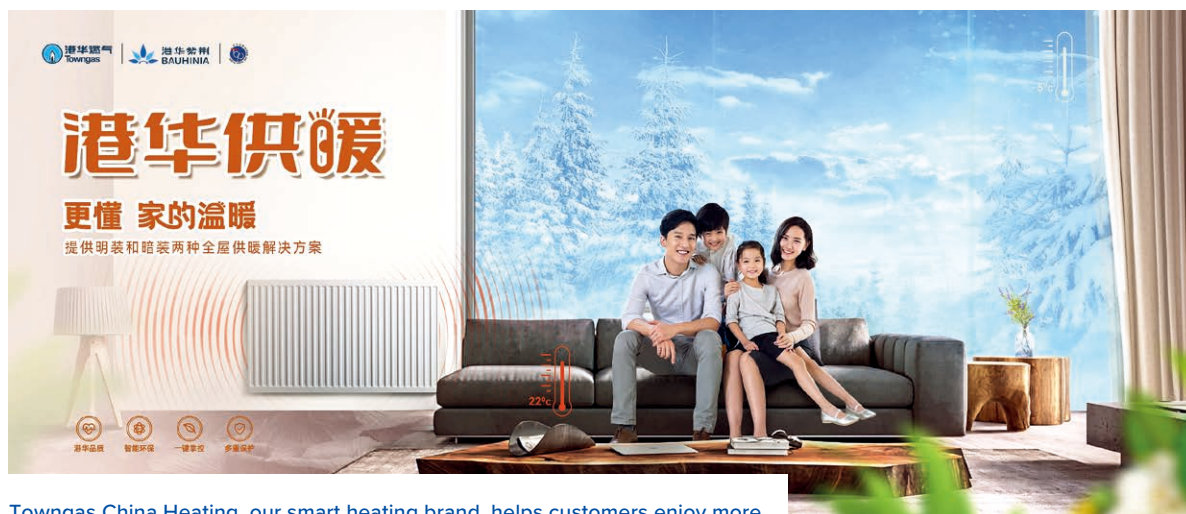
Our wholly-owned subsidiary, Hong Kong & China Water Limited (Hua Yan Water), specialises in tap water supply and wastewater treatment, water quality and meter testing, and smart water supply services in the Chinese mainland. Hua Yan Water currently operates 9 water projects, serving over 2.6 million

households with a daily water supply capacity of 4.67 million tonnes. As the economy recovered in 2021, Hua Yan Water recorded total water sales of 994 million tonnes, an increase of 8 per cent from the year before.

Another subsidiary, Hong Kong and China Environmental Holdings Company Limited (Hua Yan Environmental), coordinates our environmental governance and municipal waste utilisation businesses. With the objective of achieving zero waste and waste-to-energy, these businesses are involved in food waste treatment, waste incineration for power generation, and sewage treatment. We achieved satisfactory progress in our urban organic waste treatment projects at Suzhou Industrial Park, Jiangsu province and Tongling, Anhui province. The project at Suzhou Industrial

Park has cumulatively processed more than 300,000 tonnes of organic waste and produced 13 million cubic metres of bio-natural gas. An additional production line in the Suzhou project was commissioned in 2021, increasing daily processing capacity to 800 tonnes.

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



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



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

Businesses Beyond Gas

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

With the completion of our capital injection into Shanghai Gas in July 2021, Towngas Smart Energy holds a 25 per cent direct ownership share in the company. As Shanghai Gas is one of the leading gas suppliers on the mainland with 6.4 million customers, the partnership will bring the total number of customers we serve up to over 41 million. Since Shanghai also has the highest GDP in the

Chinese mainland, with strong demand for smart homes, healthy lifestyles and high-end products, the partnership should open up immense opportunities for our extended businesses.

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

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

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

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

Hong Kong Gas Business



A Tradition of Innovation

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



Hong Kong Gas Business

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

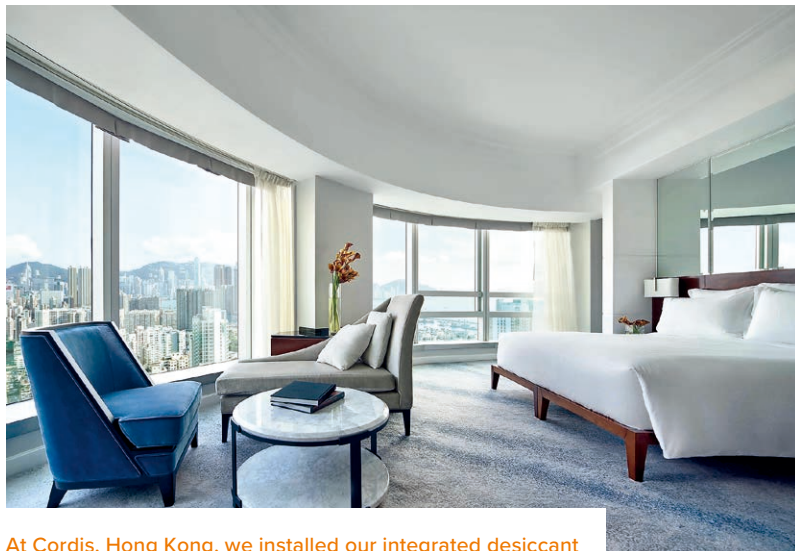
Overcoming Challenges

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

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

Decarbonisation Solutions

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



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



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

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

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

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

Another solution with great potential is our combined heat and power (CHP) system, one of which is currently in use at Nethersole Hospital. In 2021 we linked the

waste heat from the jacket water at the landfill gas power generator to the hospital's space heating system. The hospital now enjoys better temperature and humidity control as well as additional annual energy savings of 5.18 TJ and a carbon reduction of 336 tonnes. A new landfill gas 1.0 MW CHP is planned to go into service in 2026 at North District Hospital.

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

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

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



Premium Appliances and Cabinets

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

resulting from the slowdown in the pandemic.

In 2021 we introduced a Smart (IoT) Anti-scorch Built-in Hob that alerts users if the appliance is still operating after they leave their homes, and also enables them to turn it off remotely via their mobile phone. Another smart device launched during the year was a meter that not only reports meter

readings automatically but can detect abnormally high gas flow levels in the home. It will then cut off the gas and send an alert to our maintenance teams.

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

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



Effective Marketing Initiatives

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

using different materials and colour combinations.

As cooking programmes are still hugely popular on local TV channels and social media, we promoted flame cooking on TV shows such as *Kitchen On Fire* and *Oppa's Cuisine*, as well as our own *Towngas Cooking* YouTube channel. Showcasing a wide variety of cooking programmes by KOLs and celebrity chefs, our YouTube

channel has gained widespread popularity, accumulating over 11 million views since its inception in 2020.

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

2021 Results of Towngas Service Pledge

Reliability

Uninterrupted gas supply (over 99.99%)



99.996%

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

100%

Restoration of gas supply within 12 hours

100%



Appointments

Availability of maintenance and installation services within 2 working days

Average

1.16 days

Speed and Convenience

Customer Service Hotline (calls answered within 4 rings)

95.13%

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

100%

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

99.92%

Service Quality

Efficiency*



8.99

Courteous and friendly attitude*

8.99

Handling Suggestions

Reply within 3 working days

100%

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

100%



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

Service Excellence

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

In recognition of our commitment to service excellence, we received the Sing Tao Service Awards – After Sales Services for the 13th year, and East Week’s Hong Kong Service Awards – Public Utilities for the 11th year. Other recognitions included Gold Award in the Mystery Caller Assessment



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

Award – Public Service and Utilities category for our Mia Cucina 24-hour premium service hotline from the Hong Kong Customer Contact Association.

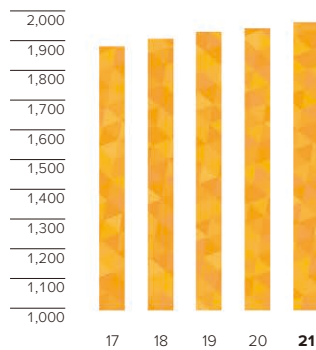
Aside from these awards, we received 6,170 letters during the year complimenting us on our high service standards.

Expanding our Gas Supply Network

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

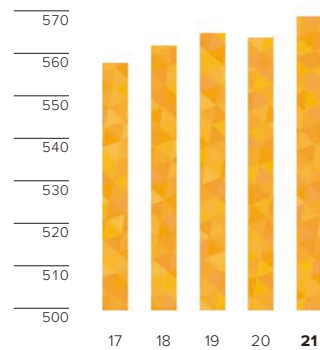
Number of Customers

Company (Thousand)



Number of Customers per km of Mains

Company



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

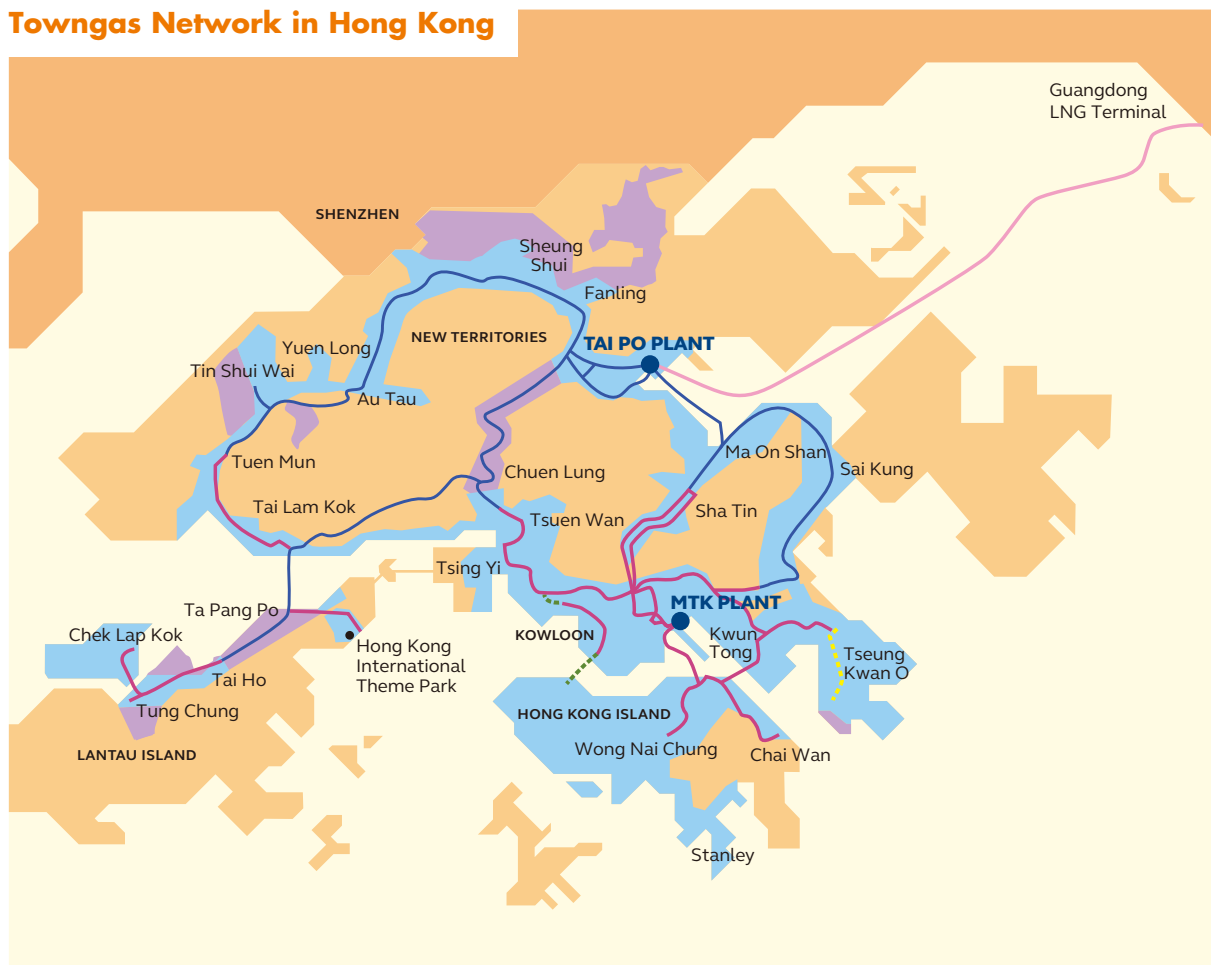
During the year, the Government announced its Northern Metropolis plan, which covers an area of about 300 sq km. Once the proposed development projects under this plan are completed, the population

is expected to increase from around 960,000 residents to 2.5 million. To meet long-term gas demand in the new development areas, we started planning to lay new pipelines and modify off-take stations in 2021.

At our gas production plant in Tai Po, we commissioned our first gas

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

Towngas Network in Hong Kong



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

Diversified Businesses



Waste to Energy for a Greener World

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



Diversified Businesses

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



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

New Renewable Energies

As biomass could be one of the key solutions for attaining carbon neutrality, we grouped all our businesses that make use of biomass as feedstock into a single platform, and gave it a new identity – EcoCeres, Inc (EcoCeres). All our related patented technologies and R&D capabilities will be

transferred to the new platform. In the past year, we raised US\$108 million in investor capital for this new platform in a Series A fundraising. More rounds of fundraising are planned to finance its rapid commercial development.

We have proprietary technologies to convert waste-based bio-grease, such as used cooking oil or palm

oil mill effluent (POME), into hydro-treated vegetable oil (HVO). Our plant in Jiangsu province has been going through a period of transformation with the introduction of better catalysts, enhanced production capacity and a higher value product mix. During the year, EcoCeres produced 185,000 tonnes of HVO, all of



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

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

Another proprietary technology owned by EcoCeres makes use of agricultural waste (the inedible portion of harvested crops) as feedstock. This technology involves

decomposing agricultural waste into its basic components of hemicellulose, cellulose and lignin, which then become the precursors for the production of renewable products, including furfural and cellulosic ethanol, the latter of which is in high demand in European markets. Two pilot projects are under way in Hebei province. The project in Tangshan for producing furfural as the main product is currently in the trial production stage, while the one in Cangzhou is expected to enter trial production of cellulosic ethanol in the second half of 2022.

The successful production of cellulosic ethanol will probably make EcoCeres the only company in the world capable of producing the full spectrum of advanced biofuels from waste, namely HVO for diesel, SAF for jet fuel and cellulosic ethanol for gasoline,

using its proprietary technologies. EcoCeres' decarbonisation journey utilising biomass would not end with advanced biofuels, however, and could lead to the further development of block bio-chemicals and bio-materials that are much needed for a carbon neutral world.

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

Diversified Businesses

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

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

Telecommunications

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



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

Information Technology

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

software development, solutions implementation and systems integration services. With these services, our city-gas businesses are able to manage their advanced customer service and gas piping network systems more efficiently. The Towngas Customer Information System (TCIS) developed by S-Tech covers 93 per cent of the Group’s city-gas companies on the mainland. In 2021 the cloud and non-cloud based versions of TCIS3.0 were implemented in 154 city-gas companies, achieving 100 per cent availability.

Manufacturing

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

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

Another wholly-owned subsidiary of the Group, G-Tech Piping System (Zhongshan) Company Limited (G-Tech), supplies high-quality polyethylene (PE) piping and

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

Civil and Building Services Engineering

Utilising its technical expertise and trenchless technologies, U-Tech Engineering Company Limited (U-Tech) provides its clients

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



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

Sustainability

Thinking Sustainably, Acting Responsibly

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





Sustainability

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

Securing a Sustainable Future

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

we deal with climate change, social investment, stakeholder engagement, sustainable purchasing and corporate governance.

As we began making the transition from a provider of gas-related products and services into a

supplier of low carbon smart energy, we continued to invest in green initiatives under our Towngas Green Bond Framework. These included four project categories, ranging from landfill gas utilisation to the production of low carbon, renewable energy.

2021 Sustainability Awards

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

RANKED FIRST
EXEMPLAR LEVEL

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

Hong Kong Sustainability Award
GRAND AWARD (LARGE ORGANISATIONS)
Most Respected Organisation Award
The Hong Kong Management Association

BOCHK Corporate Environmental Leadership Awards 2020
MANUFACTURING SECTOR – GOLD AWARD
SUSTAINABLE BUSINESS AWARD
Federation of Hong Kong Industries

Launch of the First TERA-Award Competition



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

Prioritising the UN Sustainable Development Goals

The 17 Sustainable Development Goals (SDGs) of the United Nations call on all member states to overcome different challenges and work towards a greener, more equitable world. Our support for

the SDGs reflects our commitment to combat climate change and is part of our contribution to the carbon reduction efforts of Hong Kong and the Chinese mainland. We have selected four SDGs that are most relevant to Towngas and will have the greatest impact on achieving our carbon reduction targets.





We have set new group level carbon reduction targets.

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

We are entering a new era of smart energy.

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

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

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

Carbon Neutrality Commitment

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

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

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

In another initiative to reduce GHG emissions, we signed the Chinese City-Gas Enterprise Methane Emission Control Proposal in October. Methane is a powerful greenhouse gas as it is 28 times as warming as carbon dioxide in the upper atmosphere. By signing the proposal, the gas companies including ours pledged to carry

out measures and develop new technologies to reduce methane emissions. We also plan to conduct a methane leakage assessment of our gas pipelines in the year ahead with a local university to obtain a better overview of potential leakage problems in our networks.

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

Building Climate Resilience

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



Our GHG emissions are lower than you think.

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



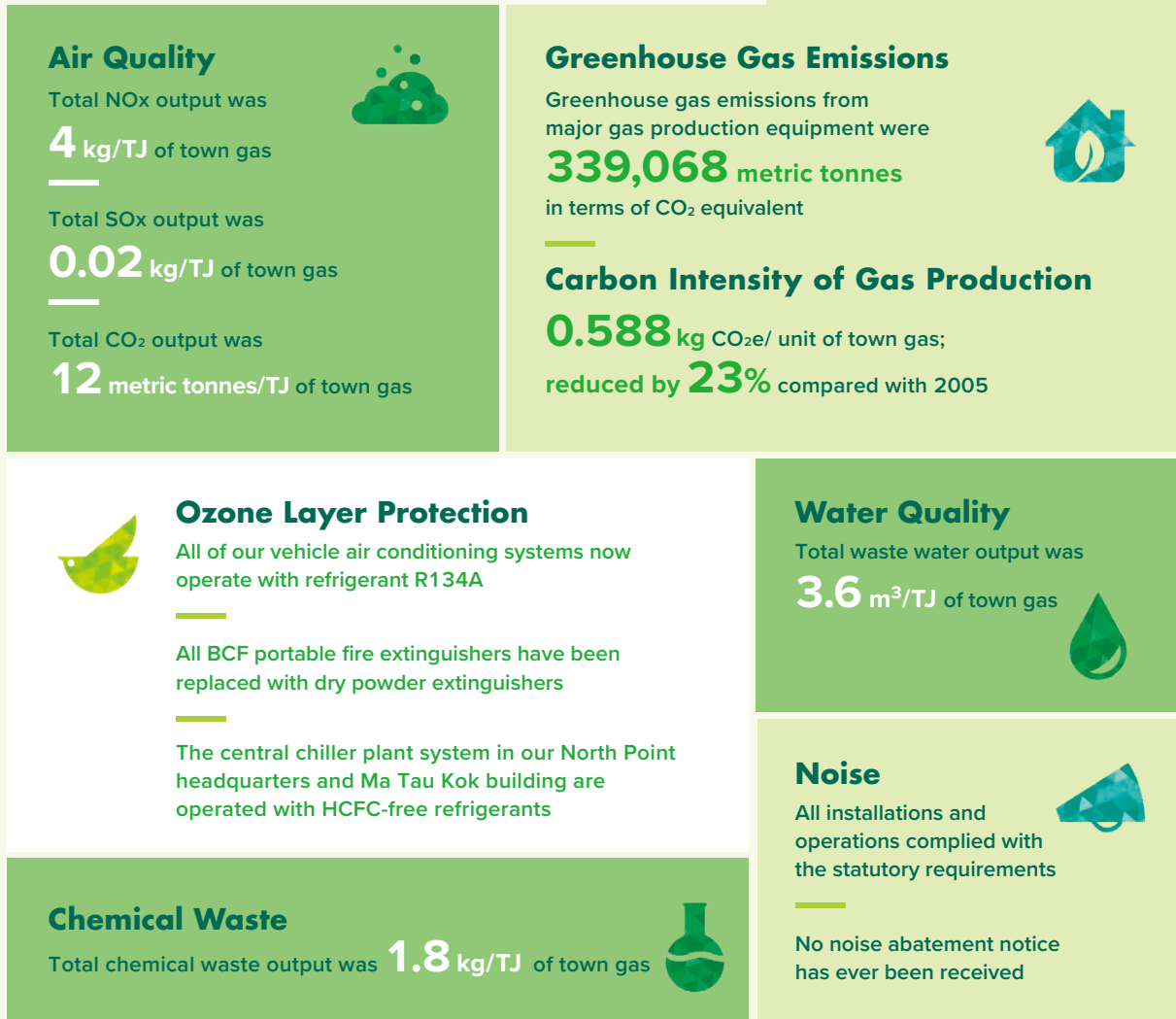
Solar power for our facilities in Hong Kong

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



2021 Key Environmental Performance (Hong Kong)

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



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

In response to the Intergovernmental Panel on Climate Change’s Fifth Assessment Report, we have enhanced our climate change physical risk assessment with a scenario analysis covering the years up to 2100. Most of our

facilities that are likely to be affected have already had flood gates and water pumps installed to minimise flooding risks; other measures have also been taken to prevent climate-induced hazards such as extreme temperatures and wind.



Towngas vehicles are going electric.

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

Promoting Green Awareness

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

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

Under the theme of "Green Nature", we invited employees of our mainland companies to adopt greener practices in their daily lives. Nearly 130 project companies were involved in this activity. For Towngas China Green Planting

Day, nearly 90 companies joined us in planting more than 20,000 trees; for Earth Hour, more than 110 project companies took part by switching off their lights for one hour to save over 22,000 units of electricity.

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



Serving the Community

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

Love on Delivery Programme, Third Phase

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

2021 Caring Initiatives



Towngas Concession Scheme

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

Total gas concessions:
HK\$26 million

Total beneficiaries:
Over 44,000 households



Festive foods for the community

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



Donations to support community activities

HK\$3 million



Number of volunteer hours

Hong Kong:
14,122 hours
Mainland Utilities:
578,586 hours



Meet our caring Towngas volunteers



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


Chef Anchor 2.0

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

volunteers offered help in all cooking classes for a total of 90 participants.

Workshops for Carers

Our volunteers, including our Towngas Cooking Centre instructors, showed the carers of patients with swallowing difficulties how to make soft-diet dumplings. The workshop was held with the Hong Kong



**Our gas meters
are getting
smarter than ever.**

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



Sheng Kung Hui Pilot Scheme on Multi-disciplinary Outreaching Support Teams for the Elderly (Kowloon Central Cluster). We also joined the Hong Kong Anti-Cancer Society to show carers how to cook a nutritious meal for patients with lung cancer — now the number one killer in Hong Kong.



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

Mainland Caring Initiatives

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

Towngas Gentle Breeze Movement

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

Rice Dumplings for the Community

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

Bauhinia Action Initiative

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



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

Ensuring Health and Safety

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

In 2021 we updated our preparedness plan for infectious diseases, published the latest information on COVID-19 for our staff and contractors, and provided protective equipment to all frontline staff. Other sanitation measures introduced in 2020 remained in force. We also continued to

encourage our employees to get vaccinated. By year end, 97 per cent of the staff from our mainland project companies and 92 per cent of our staff from Hong Kong had been vaccinated; the remaining number were unable to be vaccinated due to health reasons. To promote public health, we launched a lucky draw with HK\$3 million in prizes to encourage Hong Kong citizens to get vaccinated.

During the year, we completed the upgrade of our occupational health and safety management system for accreditation under ISO 45001.

It covers six areas, including occupational health and safety (OHS), workplace infection control, gas production safety, transmission safety, mental health and welfare, as well as business risk management.

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

The 20th Hong Kong Occupational Safety and Health Awards



Safety Performance Award – Outstanding Award

- | Towngas' Gas Production |
- | U-Tech Engineering Company Limited |
- | P-Tech Engineering Company Limited |
- | Towngas Telecommunications Company Limited |
- | ECO – LPG Filling Stations |

OSH Enhancement Program Award – Gold Award OSH Innovative Award – Gold Award

- | Intelligent Approach to Gas Services |
- | Riser Safety Management System |

OSH MVP Award 15 Years Plus

OSHC Strategic Partner Certificate



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

Safety Innovation in Hong Kong

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

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

underground pipe repairs and industrial accidents.

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

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

Continuous Safety Improvements on the Mainland

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

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

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

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

Building a Sustainable Workforce

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

An Equal Opportunity Employer

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

are female, and nearly half of our university graduate intakes are also female.

Adjusting to COVID-19

Measures to keep our people safe during the pandemic included holding job interviews online instead of face-to-face; implementing an online learning platform; and creating a new home-based

part-time Customer Services Officer role for parents with children. We recruited working mothers under this latter arrangement.

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

We made it easier for our staff to get vaccinated.

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

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



2021 Human Resources Awards

Award for Excellence in Training & Development

GOLD AWARD

Excellence in Cultural Change Award

The Hong Kong Management Association

Excellence in Practice Award

Association for Talent Development, USA

2021 Randstad Employer Brand Award Hong Kong's Most Attractive Employer

SECOND RUNNER-UP

Randstad

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

Equal Opportunities Commission

Developing a Talent Pipeline

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

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

The Towngas Engineering Academy provides professional training that supports our business by reinforcing our reputation for service excellence and gas safety and

attracts young people to the industry. We also work with the Vocational Training Council and local universities to help our technical employees acquire recognised qualifications, such as the DVE (Diploma of Vocational Education) in Gas Services Engineering and the Professional Diploma in Gas Engineering. These programmes can also lead to higher academic qualifications, paving the way to professional engineering degrees.



2021 Average training hours per employee

Hong Kong:

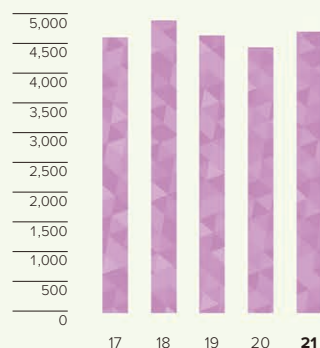
21.6 hours

Mainland Utilities:

51.5 hours

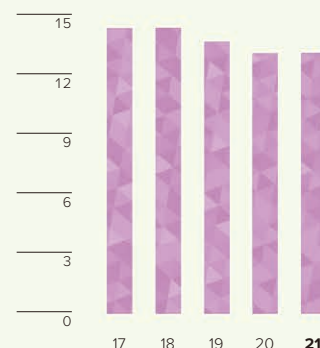
Revenue per Employee

Company (HK\$ thousand)



Town Gas Sales per Employee

Company (million MJ)



Creating Long-term Value for our Stakeholders

Towngas is fully committed to delivering enhanced value for our stakeholders over the long term by addressing their interests and needs. As combating climate change and attaining carbon neutrality are a global priority, we believe that our sustainable

business strategy focusing on ESG profiles will lead to more robust growth and investment outcomes. This commitment is also reflected in our corporate culture and the way we develop our human capital and promote innovation.

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

2021 Key Engagement Initiatives



Employees

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



Contractors and Suppliers

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



Customers

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



Local Communities

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



Investors

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

Business Projects in 2021

Mainland Utility Businesses

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

Towngas (Stock Code: 3)

Piped City-Gas Projects

Guangdong Province

Panyu
Zhongshan
Dongyong
Shenzhen
Chaoan
Chaozhou Raoping

Central China

Wuhan
Xinmi

Eastern China

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

Shandong Province

Jinan East

Northern China

Jilin
Beijing Economic-technological
Development Area
Hebei Jingxian

Northwestern China

Xi'an

Hainan Province

Qionghai

Midstream Projects

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

LNG Refilling Station

Nanjing (Marine)

Smart Energy Net Zero Industrial Parks

Cangzhou
Dalian
Guangzhou
Changzhou Zhonglou
Changzhou Jintan

Photovoltaic

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

Power Storage

Dunhuang
Yangzhou
Nanjing

Power Savings Management

Changsha
Guangzhou

Charging Station & Others

Xi'an
Qinghai
Shanghai
Jilin Electric Power

Water/Waste Treatment Projects

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

Towngas Smart Energy (Stock Code: 1083)

Piped City-Gas Projects Guangdong Province

Foshan
Shaoguan
Qingyuan
Yangdong
Fengxi

Eastern China

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

Shandong Province

Jimo
Laoshan
Laoshan Bay
Zibo
Zibo Lvbo
Longkou

Jinan West
Weifang
Weihai
Taian
Chiping
Linqu
Laiyang
Zhaoyuan
Pingyin
Feicheng
Boxing Economic
Development Zone
Yangxin
Wulian

Hunan Province

Miluo

Northeastern China

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

Hebei Province

Qinhuangdao
Yanshan
Cangxian
Mengcun
Shijiazhuang

Inner Mongolia

Baotou

Southwestern China

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

Midstream Projects

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

Upstream Project

Sichuan Liquefaction of Shale Gas

Mainland Utility Businesses (continued)

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

Towngas Smart Energy (Stock Code: 1083)

CNG Refilling Stations

Qiqihar (Lianfu)
Qiqihar (Xingqixiang)

Net Zero Industrial Parks

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

Distributed Energy Systems

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

Zhengzhou Xinmi Yinji
International Tourism Resort
Shenzhen Gas Building
Dangtu Economic Development Zone Northern District
Lishui Songyang Wangcun Industrial Park
Tangshan Fengnan Lingang Economic Development Zone
Anhui Electricity Company
Changzhou Photovoltaic Industrial Park
Eastern Park of Tongling Economic and Technological Development Zone
Fuxin Industrial Park
Haicheng city Xiliu Textile Industrial Park
Anqing Economic and Technological Development Zone

Photovoltaic

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

Power Storage

Jiangsu Suzhou
Jiangsu Danyang

Other Projects

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

New Energy and Other Projects

New Energy Projects

Coal Mining, Logistics & Coal-Based Chemicals

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

CNG/LNG Refilling Stations

Shaanxi Xianyang
Shaanxi Huitai
Shaanxi Lueyang
Shaanxi Fengxiang
Shaanxi Shenmu
Shaanxi Baoji
Shaanxi Hancheng
Shanxi Yuanping
Shanxi Lingshi
Shanxi Xinzhou
Shandong Chiping
Shandong Dongping
Shandong Jiaxiang
Shandong Weishan
Shandong Shanxian
Shandong Linqing
Shandong Heze
Hebei Shijiazhuang
Xingtai (Gangxing)
Xingtai (Xinghua)
Henan Kaifeng
Henan Linzhou
Henan Nanyang
Henan Wuyang
Inner Mongolia Huhhot
Inner Mongolia Wulatezhong Qi
Inner Mongolia Xiwuzhumuqin Qi
Inner Mongolia Chifeng
Inner Mongolia
Chaha'eryouyiqian Qi
Inner Mongolia Xilingol League
Inner Mongolia Ulanqab Huade
Inner Mongolia Ulanqab Chahar

Inner Mongolia Bayannur
Uradqian Qi
Inner Mongolia Bayannur Linhe
Inner Mongolia Bayannur Hanggin
Ningxia Jinyintan
Ningxia Zhongwei
Ningxia Zhongwei Haixing
Development Zone
Jiangsu Xuzhou
Anhui Maanshan
Jiangxi Pengze
Guangdong Guangzhou

Upstream Projects

Shanxi LCBM
Jilin Tianyuan
Xuzhou COG

Biomass

Zhangjiagang
Luanzhou
Cangzhou (Biofuel)

Oilfield Project

Phetchabun Province in Thailand

Telecommunications Projects

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

Other Projects

Shenyang Sanquan Construction
Supervisory
ECO Engineering Management
(Xi'an)
Suzhou Industrial Park Broad
Energy Services
GH Yixing Ecology
Dalian (New Energy Technology)
M-Tech
GH-Fusion
G-Tech
S-Tech (Wuhan)
S-Tech (Zhuhai)
ECO Engineering Management
(Shenzhen)
Towngas Life Style
Towngas Payment Technology
(Shenzhen)
Hong Kong & China Gas
International Energy Trading
Mia Cucina Kitchen Cabinets
(Shenzhen)
Inner Mongolia Ordos Carbon
Material
Towngas Agriculture Investment
(Nanjing)
Tangshan Laundry Factory
Danyang Laundry Factory
Suzhou Industrial Park Urban
Utilities Development
Jiangsu Jinzhao Construction
Engineering Co Ltd
Zhengzhou Kangerjie
C-Tech (Nanjing)