

# 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.

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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.

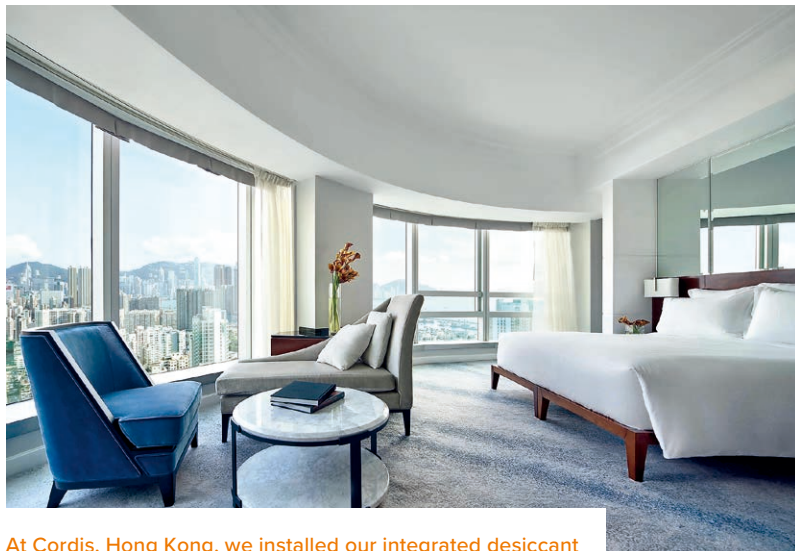
## Overcoming Challenges

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.

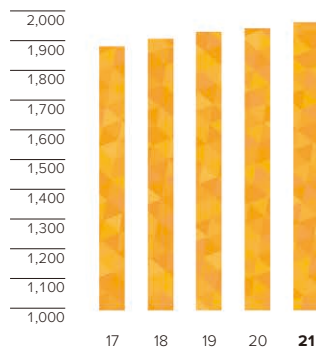
Aside from these awards, we received 6,170 letters during the year complimenting us on our high service standards.

### 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

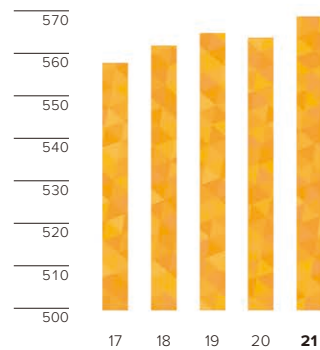
### Number of Customers

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.

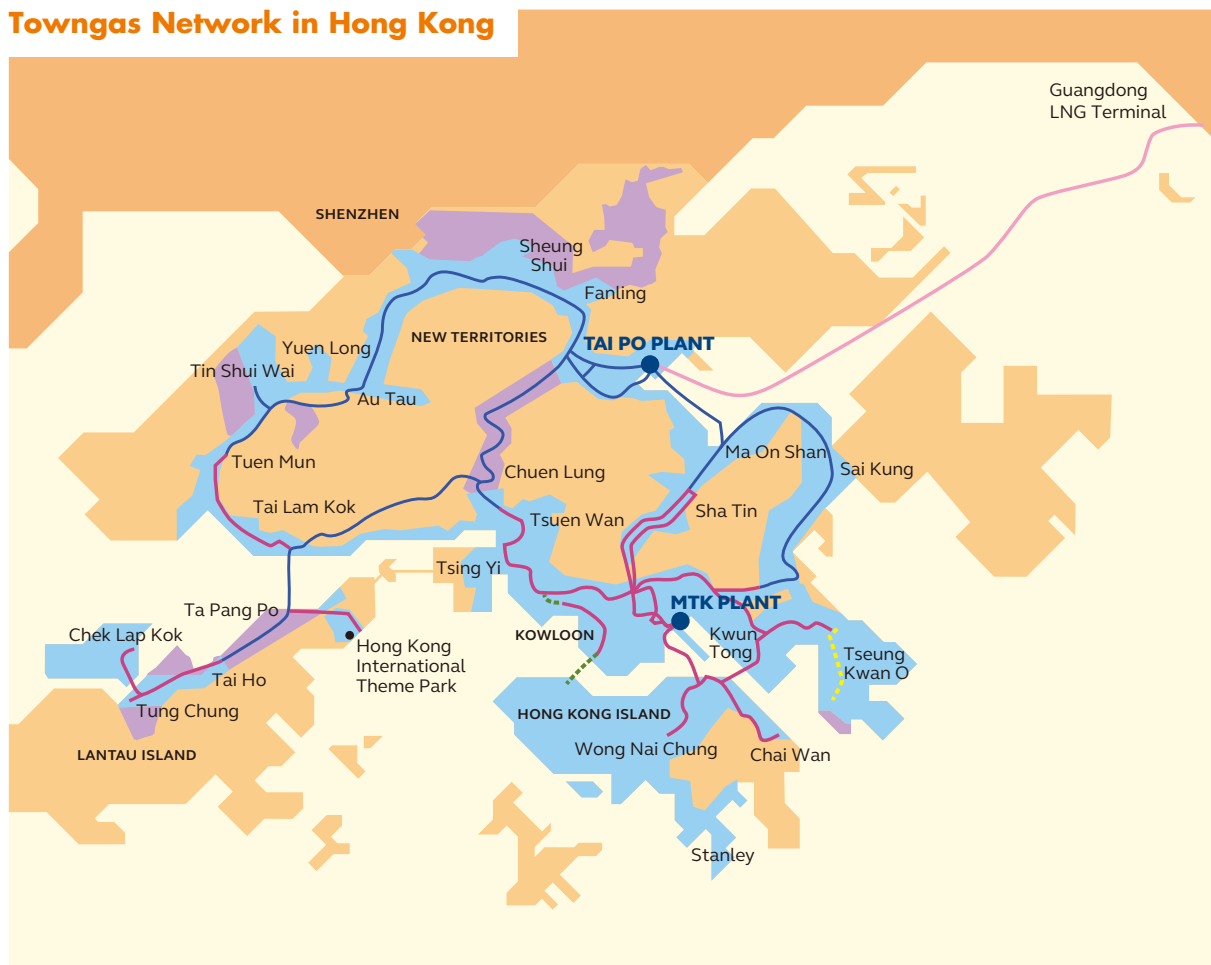
During the year, the Government announced its Northern Metropolis plan, which covers an area of about 300 sq km. Once the proposed development projects under this plan are completed, the population

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