



HONG KONG
GAS
BUSINESS

Enriching People's Lives

In homes across Hong Kong, we are making people's lives easier and more convenient through the Total Kitchen Solutions we offer. Together with our popular Mia Cucina line of premium cabinets, our wide selection of appliances and accessories contribute to a more eco-friendly and enjoyable cooking experience.



HONG KONG GAS BUSINESS

As one of Hong Kong's leading utility companies, Towngas is committed not only to providing customers with products and services of the highest quality but also to creating value for the community by offering solutions that help make the earth a greener, better place.

Meeting Customers' Needs

Our overall business performance during the year remained satisfactory. The core gas business in Hong Kong continued to grow steadily as a result of the cooler weather and increase in tourist visits. In 2018, total volume of gas sales was 29,550 million MJ, a growth of 1.7 per cent over last year. The number of Towngas customers also reached 1,908,511, an increase of 25,104 from 2017.

The use of gas absorption chillers continued to grow in 2018. These dual-function chillers offer space cooling and heating as well as hot water while saving energy costs. Among the customers for this technology was Ocean Park, which commissioned a gas absorption chiller for its Ocean Theatre in the first quarter of the year to maintain stable pool water temperatures.



Our gas boilers at this local sauce factory provide steam for cooking the sauce ingredients, as well as sterilisation and space heating in the fermentation room.

We searched for potential new customers for our landfill gas technology, which is based on the green concept of turning waste into energy. Two projects currently employ this clean energy. One is our combined heat and power (CHP) system at the Alice Ho Miu Ling Nethersole Hospital in Tai Po, which began utilising processed landfill gas from the North East New Territories (NENT) landfill site in 2017. The other is our Towngas Telecom Data Centre at Tseung Kwan O, which in 2018 started harnessing processed landfill gas from the South East New Territories (SENT) landfill to fuel a gas absorption chiller.

We looked forward to installing similar landfill gas systems for other clients.

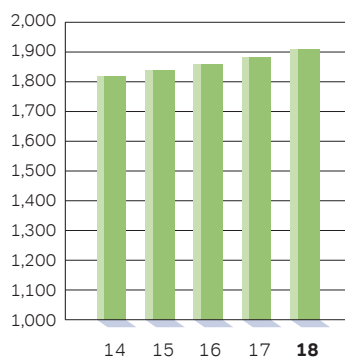
For the Alice Ho Miu Ling Nethersole Hospital project, we were delighted to win the Energy Project of the Year Award 2018 for the Asia Pacific Rim Region from the Association of Energy Engineers (AEE), which recognises innovative energy projects in the region.



We have introduced the TGC x Hello Kitty series of appliances for kitchens and bathrooms.

Number of Customers

Company (Thousand)



Our branded appliances enjoy a high level of consumer acceptance, owing to their quality, innovative features and the backing of our service professionals. More than 283,000 appliances were sold during the year, representing a 3 per cent growth over 2017, in large part due to the supply of new public housing estates in 2018 and the concerted efforts of our marketing team.

New appliances developed by our in-house product research team included a hotplate equipped with Regenerative Electric Energy Module that converts heat energy to ignite the burners, without the need for battery replacement. Since batteries contain heavy metals and toxic chemicals that create a serious risk of soil contamination and water pollution, the introduction of this first-of-its-kind appliance in Hong Kong represented a breakthrough in environmentally-friendly cooking.

Our premium Mia Cucina kitchen line remained especially popular with customers, and in December 2018 we unveiled a new Mia Cucina display area at our North Point showroom. Mia Cucina also continued to be well-recognised by property developers in Hong Kong.



Service

Meet Tinny, our new virtual assistant that responds instantly to enquiries about our residential services.



Hong Kong's first hotplate with Regenerative Electric Energy Module helps reduce waste because there is no need for battery replacement.

Achieving Service Excellence

The success of our business depends on our ability to provide a safe, reliable and secure supply of gas to customers, who depend on us for the energy they use to cook meals for their families and water heating for their homes. Our one-stop shop services and frontline staff earned high customer satisfaction, as evidenced by the approximately 6,000 complimentary letters we received in 2018.

For the greater convenience of customers, we launched a virtual assistant, which makes use of AI technology to answer customer enquiries instantly. We also offered two more electronic payment options, including the

new Faster Payment System (FPS) and eWallet – AlipayHK for customers to settle their bills, in line with the market trend.

Continual innovation has helped us to improve productivity and service delivery. One of the innovations we developed was the Portable Multi-Tester, which allows our frontline technicians to quickly diagnose defects in gas water heaters. We also launched our digital mobility solution, which has changed the way we perform our inspection and maintenance services. Relaying service orders electronically to tablet devices carried by our frontline technicians, the system replaces traditional printed service orders and allows for instant retrieval of customer service records and data analysis.

During the year, we organised two MasterCraft contests to encourage our staff to achieve a higher standard of installation. For these contests, we invited technicians and contractors from Hong Kong and mainland China to demonstrate their expertise in installing Mia Cucina cabinets and appliances.

In recognition of the outstanding service quality provided by our customer service teams, we won gold awards in the categories of Digital Transformation and Contact Centre Service under the Customer Service Excellence Award 2018 organised by Hong Kong Association for Customer Service Excellence. We were also honoured to receive the *Sing Tao Daily's* Sing Tao Service Awards – After Sales Services Award for a tenth consecutive year and *East Week's* Hong Kong Service Awards – Public Utilities for the eighth year.

2018

Results of Towngas Service Pledge

Reliability



Uninterrupted gas supply (over 99.99%)
99.990%

3 days prior notification in case of supply interruption on account of maintenance or engineering work
100%

Restoration of gas supply within 12 hours
100%

Safety



Emergency Team average arrival time (within 25 minutes)

Average 22.8 minutes

Appointments



Availability of maintenance and installation services within 2 working days

Average 1.1 days

Service Quality



Efficiency*
8.92

Courteous and friendly attitude*
8.88

Speed and Convenience



Customer Service Hotline (calls answered within 4 rings)
96.13%

Connect or disconnect gas supply within 1 working day
100%
(upon customer's request)

Deposit refunded at Customer Centres 2 hours after disconnection of gas supply
100%
(upon customer's request)

Handling Suggestions



Reply within 3 working days
100%

Resolution, or a statement of 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 out of 10.

Safety



Safe and Reliable Infrastructure

At Towngas, we have a proactive maintenance and inspection regime that ensures our gas network remains highly reliable, with a low seepage rate and minimal disturbance from third-party construction activities. In 2018, we were pleased to note that we had achieved the best safety performance in our gas pipeline network. Additionally, we brought down the number of public reported leaks to the lowest in 30 years. Third-party damage incident was also reduced to 8, a single-digit figure for the second time in our record.

If any event demonstrated the robustness of our gas infrastructure and the professionalism of our people when handling extreme weather events, it was super typhoon Mangkhut, one of the most powerful storms to hit Hong Kong since 1946. All of our operation staff were either at

work ready to deal with the situation or on standby during the typhoon. Fortunately, there was no serious gas stoppage or damage to our network or plants thanks to the precautions we had taken beforehand.

In 2018, we continued introducing innovative tools to improve our piping works. These included a coring machine for removing pipes, which helps us avoid unnecessary road openings, as well as auto-pilot drones for inspecting difficult-to-reach slope pipes in remote areas. When roadwork is necessary, we can provide contractors with an accurate record of the location of our pipes, including their depth. As contractors undertake roadworks, we will coordinate closely with them and deploy staff to detect any gas leakages while they are digging.

Additionally, we make use of an In-line Intelligent Pigging Inspection device that can be inserted into a pipeline without

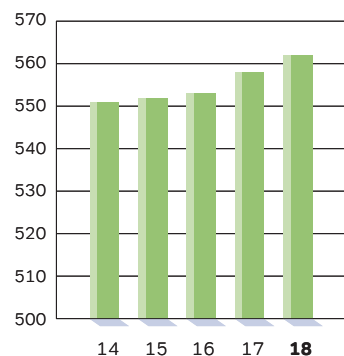
interrupting gas supply.

During the year, it helped us to inspect 137km of our 35 Bar high pressure network and determine that the integrity of our transmission gas supply network was satisfactory.

Work on our pipeline network during the year included the extension of the network between Tuen Mun and Tsuen Wan, which we expect to finish in mid-2019. When completed, it will form a ring-feed system that will dramatically increase supply security for North West New Territories. Progress was also made in the extension of our network to handle the gas supply needs of the third runway at Hong Kong International Airport and New Development Areas, as well as Water World and hotel developments at Ocean Park.

Number of Customers per km of Mains

Company



Towngas Network in Hong Kong

