





“With our new kitchen,
I love making
delicious healthy food for
my family every day.”

HONG KONG
GAS BUSINESS

heartfelt warmth.

The first commercialised project utilising landfill gas to fuel the combined heat and power system in Hong Kong was commissioned at a hospital in Tai Po

Our Total Kitchen Solution, under the Mia Cucina brand name, enjoyed a growth in sales to 4,186 units in 2016, bringing our market share in the private development projects sector to 30 per cent

Gas appliance sales increased by 7.7 per cent, contributing to profits as well as enhancing regular maintenance operations by provision of high-quality products

HONG KONG GAS BUSINESS

Towngas has been serving the people of Hong Kong since the 1800s. We have constantly sought fresh ideas to enhance modern living and enable the growth of our business. By embracing creative thinking and delivering practical solutions, we have benefited our communities and ensured our sustainable development.



Towngas Managing Director Alfred Chan (right) explains the combined heat and power (CHP) system to Secretary for the Environment Wong Kam Sing (left) at the launching ceremony of the CHP system at Alice Ho Miu Ling Nethersole Hospital.

Residential and Commercial Activities

The dampening effects of modest economic growth and a drop in overnight tourists were offset by a surge in gas consumption driven by low temperatures early in the year. Total gas sales of Hong Kong of 28,814 TJ were recorded in 2016, representing a growth of 1.4 per cent over the preceding year. Our customer base likewise maintained its stable growth by increasing 20,153 accounts to a total of 1,859,414 as at the end of the year.

Residential gas consumption rose 3.3 per cent over 2015 levels, due in part to the lower average

temperatures recorded. Promising developments in the commercial sector also contributed significantly to our gas sales, including the expansions of the Cape Collinson Crematorium and a local theme park, as well as the fuel conversion of Pok Oi Hospital from diesel to gas.

New gas applications continued to take hold among our environmentally conscious customers, driven by our targeted marketing strategies. Both theme parks in Hong Kong now have our gas-fired absorption chiller plants and dehumidifiers installed in place of their electric counterparts. With more installations of gas-fired facilities

in progress as the two parks move forward with their own expansion plans, we expect our commercial gas sales to continue on an upward trajectory in the coming years.

We are also intensifying the integration of landfill gas into Hong Kong's energy mix, harnessing it from local landfill sites and treating it for use as recycled fuel to extend local gas utilisation opportunities.

At the Alice Ho Miu Ling Nethersole Hospital in Tai Po, we installed Hong Kong's first combined heat and power system driven by treated landfill gas, reducing the hospital's reliance on electricity to reduce carbon

emissions. Its thermal by-products can be harnessed to generate steam for the hospital's daily use, enhancing the energy efficiency of the system to 85 per cent. Recognising the benefits of these systems for other energy-intensive operators, we actively canvassed potential users in the Tseung Kwan O area as the landfill gas treatment facility in the South East New Territories (SENT) approached commission. Our landfill gas treatment projects can provide businesses in the vicinity with a renewable energy option.

Catering to Hong Kong's evolving culinary tastes, we established stable growth this year in the restaurant trade through a range of new commercial western cooking appliances, programmable roasters as well as noodle-cookers. For local restaurants, we introduced high-efficiency stockpots featuring technology that not only shortens boiling

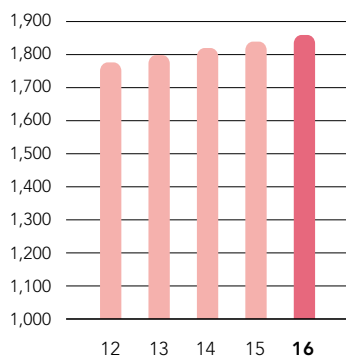
time by half compared to traditional stockpots, but also reduces heat and noise significantly for a better kitchen environment. Several large catering groups – including the popular Hong Kong Maxim's Group and Tsui Wah Group – have commissioned them for their restaurant chains. We also equipped local Korean barbecue chains with a series of new Korean-style gas grillers in light of the growing popularity of this cuisine among local diners.

Aside from our reputation as a safe and reliable provider of clean fuel, we continue to be a household name in high-quality consumer appliances and stellar after-sales services. Despite the weak economy, 275,361 sets of appliances were sold in 2016 with a 24.9 per cent increase in sales

revenue, driven chiefly by the remarkable performance in the large property development projects.

Particularly well received among property developers was our Total Kitchen Solution, which combines our TGC appliances with our popular Mia Cucina kitchen cabinets and other branded products in a one-stop solution for retail consumers and commercial developers. Unit sales rose to 4,186 in 2016, bringing our market share in the private development projects sector to 30 per cent. We expect this momentum to continue with the launch in early 2017 of our unified Mia Cucina kitchen series in tandem with the mainland market, offering one brand name that encompasses appliances and cabinetry.

Number of Customers
Company (Thousand)



Exuding style and elegance, TGC's rose gold temperature-modulated gas water heater is perfect for customers seeking a touch of class.



The Towngas Cooking Centre offers quality courses for culinary enthusiasts to master sophisticated techniques so they can prepare delicious cuisines and embrace the joy of cooking.

Additions to our line-up that will be introduced under the new Mia Cucina appliance brand include gas ovens, our new highly rated 8kW gas hob (the highest rated residential hob available in Hong Kong), range hoods and built-in refrigerators, amongst others. In recognition of their exceptional quality, our Mia Cucina projects were accredited by the Hong Kong Professional Building Inspection Academy in 2016, enhancing their competitiveness in the residential market.

Our robust performance in the face of a weak economy is attributable to more than mere marketing acumen. In addition to our promotions in home décor publications and websites, Mia Cucina continued to gain traction on the strength of our multifaceted customer engagement efforts. We also launched the international

Reinventing Home Kitchen – Design Contest 2016, which drew in over 100 submissions created by design professionals and culinary talent alike from 17 different countries. Winning entries will come to fruition through the Mia Cucina brand, providing us creative ideas of reinventing kitchen design.

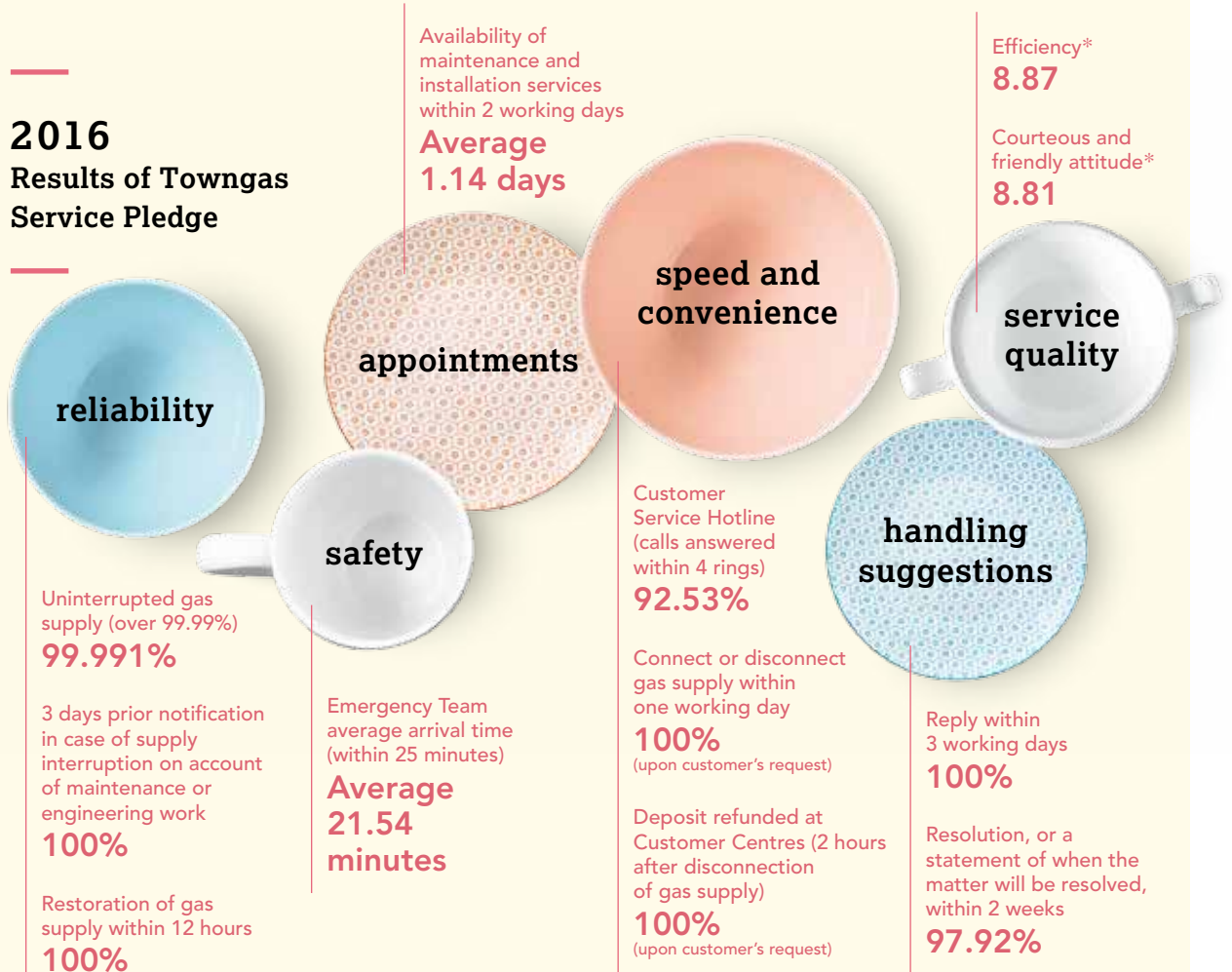
To drive gas sales, we continued to promote flame cooking, particularly among a younger segment of consumers. Taking our message to social media, we produced a series of popular cooking videos featuring celebrity chefs who discussed the benefits of flame cooking, along with other light-hearted cooking segments that were launched online, rekindling the joy of healthy home cooking. Video interviews were also conducted with restaurant gurus and trade leaders from the food industry for the commercial sector, highlighting the

superiority of flame cooking with Towngas.

Another focus of our promotional efforts was our gas dryer. Highlighting advantages like speed, fabric-friendliness and environmental benefits, our promotions extended across a range of promotional channels, including social media, where we launched a photo contest and referral programme. Dryer sales rose by 14.4 per cent as a result, attesting to the enduring appeal of our unique dryers.

In a nostalgic nod to our roots in the 19th century, our gas lamps continued to radiate throughout the streets of Hong Kong. Together with new installations in Wan Chai and Repulse Bay this year, over 40 gas lamps are located throughout the city, evoking the romance of an earlier era for the enjoyment of a new generation.

2016 Results of Towngas Service Pledge



* The result was based on surveys conducted by an independent research company. Our target is to exceed a score of 8 out of 10.

A Commitment to Customer Service

We are a utility company offering services that directly impact everyday life. Customer satisfaction has been a key driver of our business and we were honoured to receive over 6,400 complimentary letters throughout the year as a testimony to our quality services and products.

The backbone of our customer service structure is formed by our technical teams. Customer service achieved new levels of efficiency

this year with the expansion of our mobility solution to our maintenance teams. Our technicians are equipped with mobile devices to provide instant quotations, eliminating the need for paperwork. Information like appliance instructions, safety videos and product promotions could also be called up instantaneously to keep customers informed on ways to keep appliances running safely. Already in use by our Regular Safety Inspection Teams,

Emergency Teams and Installation Teams, this system helps us save over 2 million pieces of paper per year. In 2017, we plan to introduce a number of internet channels aimed at communicating with our new generation of customers.

In recognition of our dedication to service excellence, we also received the Sing Tao Service Awards – After Sales Service for the eighth consecutive year and East Week's Hong Kong Service Awards – Public Utilities for the sixth year running.

Gas Infrastructure

Keeping pace with new housing and commercial developments that are currently underway, our piped-gas network and infrastructure in Hong Kong continued to expand in 2016, supporting the growth of our gas business and enhancing supply reliability. New residential developments in Kai Tak, Sha Tin and Kwun Tong were connected to our gas mains this year, as were several large laundering facilities and Phase II of a theme park currently under development.

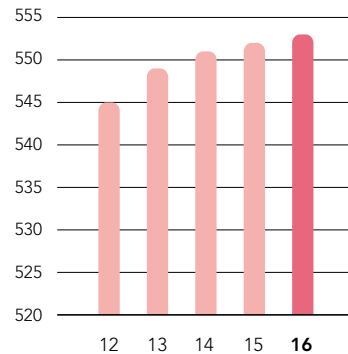
With areas of the North East New Territories and Shenzhen River Loop coming into focus under the government's comprehensive development plans, we are preparing for a substantial expansion of our piped-gas network to cope with the anticipated surge in gas demand. Network design is currently in progress for development areas in Fanling North, Kwu Tung North, Hung Shui Kiu and Tung Chung East, while in Lantau, over 15 km of pipeline are being planned for

the third runway project and the new commercial development in Chek Lap Kok. The new pipelines will be laid in conjunction with the government's road infrastructure.

Progress continues in the laying of a 9 km stretch of looped intermediate-pressure pipeline along Castle Peak Road, as well as the modification of our adjoining stations in Tai Lam and Tuen Mun North. This will enhance the stability of the gas supply to the North West New Territories once complete. The replacement of our medium-pressure ductile iron pipes for gas supply enhancement is also progressing, and is now in its final stages.

Our piped gas network has a reputation for reliability and a low seepage rate, which we achieve through diligent monitoring and the proactive maintenance of our infrastructure. In 2016, on a 10-year cycle, we carried out in-line assessments of our high-pressure pipelines using

Number of Customers per km of Mains Company

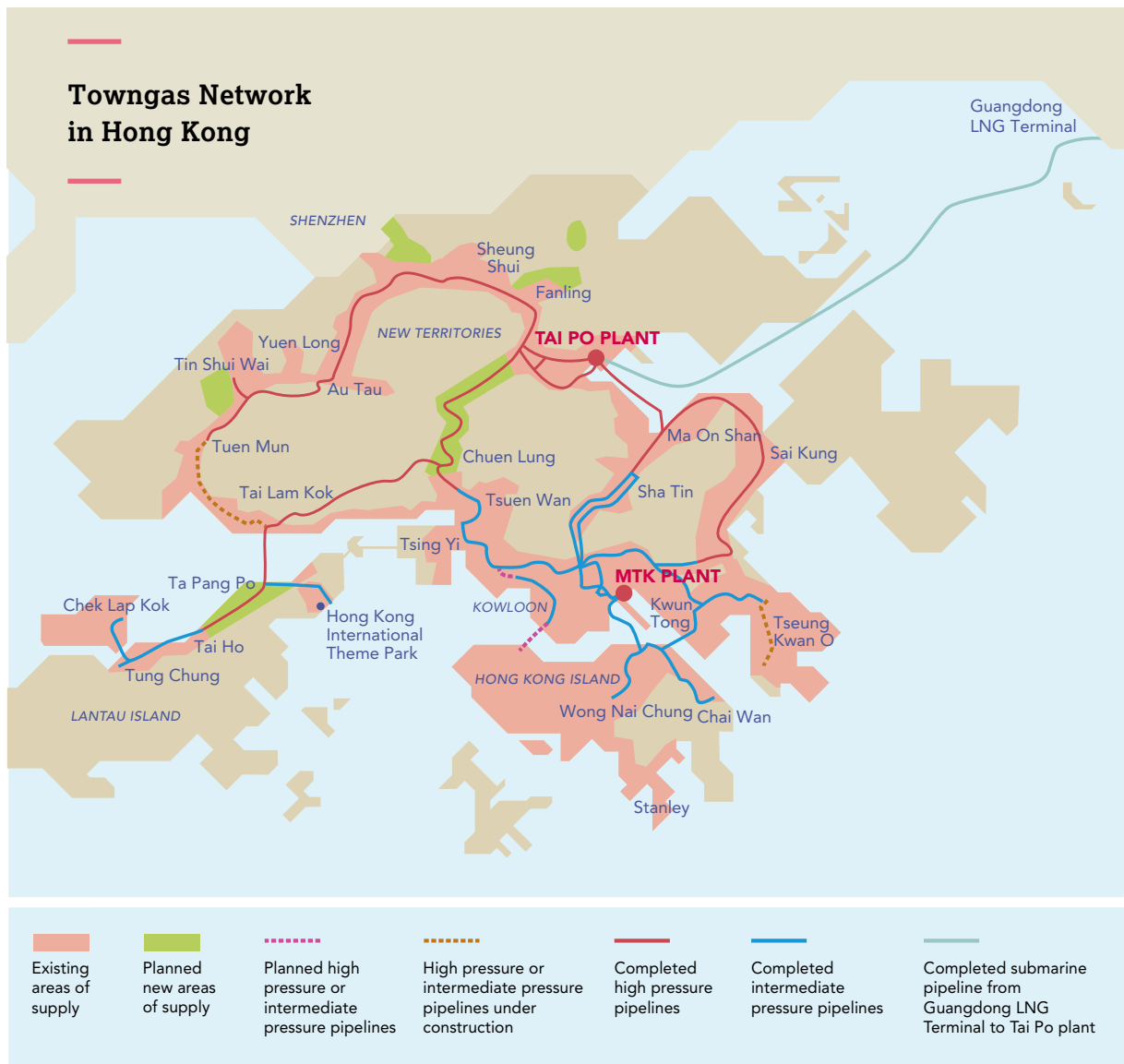


intelligent pipeline inspection gauges, enabling us to ensure the continued integrity of our pipeline system.

Our innovations also extend towards enhancing safety and efficiency in gas supply system maintenance and repair works. The Smart Jacket is a PVC sleeve we developed to enclose targeted riser sections to halt corrosion, reducing the need to replace pipes that are otherwise uncompromised. Automation via the application of robotics this

We introduced remote-controlled mini excavators to accelerate the schedule of our roadworks, while protecting the health of our employees.





year saw our roadwork benefit from the introduction of our Little Swan, which is a fleet of mini excavators that can be controlled remotely and manoeuvred easily even in tight spaces, reducing our reliance on cumbersome equipment. Our rapid rock drilling and splitting machine likewise reduces the need for traditional manual rock splitting. Capable

of drilling and splitting hard rock 20 times more quickly, it allows for a substantial reduction in manual labour.

We make effective use of technology to conduct remote monitoring of our pipe system. Our computerised pipe replacement automated point system maps sections of pipe that need to be replaced based

on a point system. Factors taken into consideration include the pipe's age, leakage history, material used, gas pressure, size and location, amongst others. Photogrammetry is another digital tool we use to measure the precise positioning of our pipelines, translating a series of images into engineering records that aid us in asset management.