# TOWNGAS CORPORATE INFORMATION

2015

ENVIRONMENTAL
SAFETY & HEALTH
OPERATIONAL & FINANCIAL
INFORMATION



# **FOREWORD**

The Hong Kong and China Gas Company Limited (Towngas), in its endeavour to enhance the transparency of its operations and services, publishes this Corporate Information Booklet 2015.

Supported by charts, the Booklet presents an update of the Company's accomplishments across a wide spectrum of activities which range from an annual business and operational review to its financial status.

Prominent in the Booklet is information on the Company's Safety measures and practices. These include prompt response to emergency incidents as well as proactive efforts to maintain gas safety at customers' homes and enhance their knowledge of gas safety.

Towngas is also well aware that liaison with customers is a priority issue. Hence, complementary with the 24-hour Customer Service Hotline, the Customer Focus Team serves as an effective direct communication channel between the Company and its customers.

Furthermore, the Company has achieved high performance in its "green policy" to ensure an environmentally-friendly operation.

However, Towngas does not intend to be complacent. Instead it will continue to seek further improvement and provide the people of Hong Kong with even better and more value-formoney service.

For enquiries, please contact our Corporate Affairs Department at 2963 3483.

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### 1. Annual Business Review

The local economy continued to grow modestly in 2015. Favourable overall employment conditions maintained stable growth in local consumer spending. However, gas sales in the hotel sector were impacted by a decrease in the number of inbound tourists during the second half of 2015. Residential gas sales were also affected as the average temperature in Hong Kong in 2015 reached the highest in local records. Overall, total volume of gas sales in Hong Kong for the year was 28,404 million MJ, a decrease of 1.5 per cent, in contrast to appliance sales revenue which increased by 6.4 per cent with a total of 255,730 sets sold, both compared to 2014.

During the year under review, the Company invested HK\$1,154 million in production facilities, pipelines, plants and other fixed assets for the further development of its gas and gas related businesses in Hong Kong.

### (a) Hong Kong Gas Business Profit

The volume of gas sales dropped by 1.5 per cent in 2015, while our customer base further expanded to a total of 1,839,261 accounts, an increase of 19,326 over the previous year. To help offset increasing manpower and operating costs, we adjusted our standard gas tariff by HK 1 cent per megajoule with effect from August 2015, which was equivalent to 3.5 per cent increase of the actual gas tariff. Net profit after tax from sales of town gas in Hong Kong for the year 2015 decreased by 2.2% to HK\$2,640 million.

# (b) Sales and Marketing

Despite the dip in inbound tourism in 2015, our commercial business performed well through our efforts to cultivate new gas applications. Hong Kong's two theme parks are diversifying their energy sources, using gas to power air conditioning, dehumidifying and other applications as a more economical, environmentally-friendly and reliable alternative. Considered together with on-site catering services, we saw a strong increase of 36 per cent in gas sales within the parks.

Our business in the restaurant trade enjoyed stable growth with the introduction of tailor-made high-efficiency products. Our innovative range of automated cooking appliances has been well received in the commercial catering industry. Featuring waste-heat recovery functions together with automatic wok-tossing, smart flame timers and programmable jet oven features, these gas-powered appliances not only save energy and lower operating costs, they also allow for a more consistent standard in cooking quality and help lower the risk of repetitive stress injury for employees.

During the year, we secured two new conversion-to-gas projects for the benefit of the environment – a laundry factory in Tuen Mun and a hospital in Wanchai operated by the Hospital Authority. It is expected that the switch of their diesel equipment to dual-fuel, allowing for the use of town gas, will be completed in 2016.

We will also be supplying landfill gas to generate electricity, which presents the added benefit of reducing carbon emissions and transforming waste into useful energy. Once construction is complete, a new generator located in the North East New Territories will annually supply 20 million MJ of electricity to the Alice Ho Miu Ling Nethersole

Hospital. As a combined heat and power system, the generator produces thermal by-products that will also be harnessed to produce steam and hot water for use in the hospital. The new system is due to come into operation in mid-2016.

We always strive to promote home cooking and family dining as a way to foster synergy amongst our residential projects and to transform our image beyond that of a traditional utility company. In 2015, our marketing campaigns – Cook For Love and Total Kitchen Solution, aiming at fostering family closeness through home cooking and a modern lifestyle respectively – were ranked among the top 10 in the HKMA/ TVB Awards for Marketing Excellence 2015, taking home two Merit Awards.

In 2015, a total of 255,730 sets of appliances were sold with an increase of sales revenue by 6.4 per cent, compared to 2014. Through Total Kitchen Solution, we expanded our B2B business in the high-end retail and property development markets. Packaging our Mia Cucina kitchen cabinets with our TGC and Scholtès gas appliances, we offered a one-stop kitchen package to both the retail consumer and commercial developer markets. Fulfilling emerging needs for premium designs in compact kitchens, these packaged solutions are high in demand among Hong Kong's top developers. More than 4,000 kitchen solution installations were sold in 2015 alone. Our new Inner Pantry cabinets were also introduced this year, specially catering to the latest designs for studio flats. We are confident that they will quickly gain popularity among Hong Kong's new generation of homeowners.

2015 marked the 20th anniversary since the debut of our popular gas clothes dryers in Hong Kong. To celebrate the success of this gas application, we launched an array of promotions to highlight the advantages of indoor gas clothes drying.

# (c) Serving Our Customers

We are committed not only to high standards of quality in our products and services, but also to the safety and convenience of our customers. As evidenced by the 6,766 compliments that we received in 2015, our efforts are well appreciated by our customers.

For the past 20 years, we have carried out regular gas safety inspections every 18 months, keeping our incident rates at record lows. Inspections are also good chances for our frontline staff to engage with customers, impart gas safety tips and address concerns directly.

Our customer engagement endeavours reaped tremendous rewards in 2015. We received the Sing Tao Service Awards – After Sales Service for the seventh consecutive year, East Week's Hong Kong Service Awards – Public Utilities for the fifth year running, and Ming Pao Weekly's Ming Pao Elite Awards – Public Utilities for the first time.

Our customer service hotline, powered by a state-of-the-art call management system, has enabled us to embrace an array of innovative service enhancements. These earned us the Mystery Caller Assessment (Phone-in) Gold Award, the Inbound Contact Centre Team Leader of the Year Gold Award, and the Inbound Contact Centre of the Year (over 50 seats) Bronze Award, organised by the Hong Kong Call Centre Association.

During the year, we revamped our mobile application for access to a wider range of online services, cooking recipes and green tips. Payments may now be settled at convenience stores anytime, simply by providing the in-app QR code.

### (d) The Gas Infrastructure

The year 2015 saw a continuation of our efforts to expand and upgrade our pipedgas network and infrastructure in Hong Kong, serving our customers and enhancing supply reliability.

Modifications to our Ma Tau Kok plant have been completed, allowing for natural gas to completely replace naphtha as the feedstock for the production of town gas. Not only will this further reduce NOx emissions in the process, it will bring numerous economic benefits as well. As part of our ongoing efforts to enhance gas safety, we strengthened our trench inspection measures, engaged in more rigorous leakage surveys and conducted regular upgrades to aging pipes. These efforts have paid off, enabling us to realise the lowest numbers of both third-party damage incidents and network leakages. Moreover, our ongoing replacement of medium pressure ductile iron pipes in our gas network is now approaching its final stages.

To enhance supply security for the residential sector in the North West New Territories, we are laying a looped pipeline 9 km in length along Castle Peak Road from the Tai Lam Station to the Tuen Mun North Station, and modifying these gas stations to support the added capacity. Pipelaying work is expected to be completed in 2017.

Another way to enhance supply security is developing new technology to improve our inspection and maintenance procedures. We use wireless quadcopters to conduct our riser inspections and detect gas leaks, greatly enhancing operation efficiency. Similarly, our Laparobot, a small robot designed to move within our network of pipes to detect and rectify abnormalities, eliminates the need to dig up the pavement. Another invention is our Aquashield, which automatically seals off pipes compromised by water ingress in order to protect our underground networks from becoming inundated by water mains burst in the close vicinity.

### (e) Towards a Sustainable Future

We pledge to make every effort to protect the environment and ensure sustainable development. This green policy guides our operations at all levels. Throughout 2015, we achieved numerous milestones and participated in many events and programmes centred on our role as an environmental leader and advocator.

In Hong Kong, construction on the South East New Territories Landfill Gas Utilisation project showed satisfactory progress. The new facility will utilise advanced technology to convert landfill gas into synthetic natural gas, which will be transported through a 12-km-long pipeline to Tseng Lan Shue and integrated into the gas supply network there. The project is expected to reduce carbon emissions by around 56,000 tonnes per year.

Through energy-saving initiatives designed to reduce electricity consumption, our headquarters in North Point, Hong Kong attained the Final Platinum rating under

the Building Environmental Assessment Methed (BEAM) Plus Existing Buildings V1.2 in 2015. Initiatives included the installation of an oil-free variable speed water-cooled chiller in our air conditioning system that reduces energy consumption while eliminating thermal waste and oil contamination. In addition, we signed the Energy Saving Charter, through which we committed to a room temperature of 24°C to 26°C from June to September. We also pursue a paperless approach to business with the use of tablets and mobile devices. Handling such matters digitally saves time and natural resources while improving customer service and relations.

Public education is another significant component of our environmental initiatives. We promoted different ways to live green to our employees, contractors and suppliers as well as the general public, focusing on impactful changes to daily life.

We supported environmental programmes calling attention to Hong Kong's struggle with food waste, which adds over 3,000 tonnes of refuse to landfills every day. In 2015, we worked with Friends of the Earth (HK) through the Cherish Food Reward Scheme, providing discounts and vouchers to patrons at over 130 restaurants in exchange for ordering less rice and leaving no food behind. We also sponsored Greeners Action's Leftover Cooking Contest to encourage the public to cherish food by using leftovers as ingredients for cooking.

During the year, we also actively participated in environmental campaigns organised by green groups in Hong Kong. Under the Lai See Recycling Programme by Greeners Action, for instance, over 120 kg of red envelopes were collected in our offices, encouraging an eco-friendly Chinese New Year. In March, we took part in WWF's Earth Hour by turning off lights at our facilities in Hong Kong and mainland China for an evening to raise public awareness of climate change. Moreover, we supported the Clean Air Network's Airmazing Race 2015, joining the fight against air pollution.

Working with the Conservancy Association, we held the fifth annual Green Leaders Bloc programme, which nurtures students to become future environmental leaders through a series of training programmes. Participants also planned campaigns for promoting green living whilst raising awareness of carbon emissions. Over 100 young people have taken part since the first intake in 2011.

Towngas employees combined exercise with charity, raising money and awareness of pressing environmental issues. Employees and their families joined the Green Power Hike and the Green Sense Charity Hike, raising funds for good causes while learning about Hong Kong's environment.

# (f) Empowering Our People

We treasure employees as our valued resource. To improve our employees' work satisfaction and well-being, we consistently organise different kinds of activities to enhance their physical and mental health.

As a socially responsible company seeking to offer opportunities to individuals with disabilities, we improved facilities for those working at our hotline centre. Workstations have been redesigned ergonomically, the main entrance has been refitted with an automatic door, and barrier-free facilities have been installed in the washroom.

In 2015, we continued with the Fun Living Series programme as the theme of our wellness programme in Hong Kong. Seminars focused on parenting, marital harmony and elderly care improved the personal lives of employees through education.

Our contractors constantly exhibit active engagement and we value them with the same commitment as Towngas employees. In Hong Kong, we offer our contractors competitive compensation packages, including life protection plan, placing us among the first few utility companies to provide such scheme to contract staff. We not only organise a wide range of activities for our contractors, such as workshops, visits, tours, etc. but also set up incentive schemes and awards and invite them to participate in our major activities.

Investing in employees is on the top of the priority list at Towngas. Throughout 2015, we focused our development programmes on leadership, management and technical training, allowing colleagues to enhance their skills and abilities. We offered opportunities for career enhancement and progression. Towngas Engineering Academy (TEA) organises a wide variety of technical training programmes for our employees so that they can acquire the academic and professional qualifications for advancement. Launched in July, our new e-Learning platform was designed to provide employees with the opportunity to learn at their own pace, as well as to refresh their knowledge on the go.

TEA is also committed to raising the professional standards of service for engineering personnel in mainland China, with the aim of building a stronger professional team. In 2013 and 2014, the Group became the first and only gas company in mainland China accredited by the Hong Kong Institute of Engineers and the Institution of Gas Engineers and Managers to organise dedicated training programmes for gas engineers on the mainland. Upon completing the programmes and accumulating sufficient working experience, trainees will gain a fast track to register as chartered engineers. The first cohort of trainees completed the programme in 2015. During the year, a total of 200,011 training hours were offered through TEA in Hong Kong and mainland China.

We set up the Towngas Hall of Innovation exhibition at our Hong Kong headquarters to showcase innovations that have led to significant improvements in workflow, safety and productivity. These exhibits provide inspiration while recognising the talent and efforts of their inventors. We also issued a periodical, "Innovation Headlines", featuring creative ideas and practices to encourage employees to approach their work with an open mind and to think outside the box.

We continued to implement internship programmes, graduate and management training, and career development schemes. For instance, 24 colleagues from Hong Kong participated in short-term mobility assignments in mainland China over the year, immersing themselves in the local working culture. These programmes build our talent pool and increase employee competencies, ensuring smooth operations as the Group magnifies its expansion.

# 2. Safety

# (a) Customer Safety

Our concern for safety underpins everything we do. We understand the need to educate and inform the public on the safe and responsible use of gas products and services. In 2015, we held 13 safety exhibitions, maintaining our long-standing and well-proven methods of taking our safety message direct to consumers. As always, appliance safety was a high priority: We conducted more than 1,230,000 Regular Safety Inspections of gas facilities in customers' homes. This safety driven programme has proved extremely popular with our customers.

# (b) Occupational Safety and Health

Safety and health is our top priority. To continuously keep up with the safety and health standard and reduce the chance of accident systematically, an all rounded safety management system has been implemented in the Company. Regular safety trainings and activities are organised to promote safety culture and keep up with the safety and health standard. In 2015, there were 18 industrial accidents with an Accident Frequency Rate of 0.36.

To ensure our colleagues respond to emergencies in a timely and effective manner, drill exercises were carried out regularly. In 2015, we held a number of joint fire exercises with the Fire Services Department, allowing our emergency response team to work closely with Fire Services Personnel in the operations. Furthermore, we have organised a Corporate Emergency Table-Top Exercise to enhance the emergency management.

We have introduced a variety of programme in 2015 to embed the safety culture within our company. Activities include Health, Safety and Environment (HSE) Day and seminars during the HSE Month, attracting over 2,500 staff and contractors to participate. Moreover, we also staged an Occupational Health Campaign to enhance the knowledge and interest of our colleagues on this topic. To improve the safety standard of our contractors, Contractor Safety Programme such as Contractor HSE Forum has been organised.

With outstanding safety performance, Towngas won three awards in the "14th Hong Kong Occupational Safety & Health Award" organised by the Hong Kong Occupational Safety and Health Council, including "Safety Management System Award (Other Industries) – Gold Award", "OSH Annual Report Award – Silver Award" and "Safety Performance Award".

# (c) Gas Production Plants Safety

We have strong confidence in the safety, reliability and management systems of our Tai Po and Ma Tau Kok gas production plants. Both plants were designed and built by reputable international project contractors, based on proven engineering and chemical processes. Manned by competent and experienced operation and maintenance crews, the two gas works did not have even one interruption to the gas supply since the first

day they were commissioned. On this basis, the Company's supply reliability continues to be one of the best in the utilities and reached a level of 99.992% in 2015.

The Company exerted great efforts in safeguarding the conditions and availability of the two gas plants. Ma Tau Kok gas production plant has over 38 years' safe and reliable production history, while Tai Po plant is equipped with modern computer control systems and sophisticated instruments, and the plant has been running stably for 29 years. Both sites implement strict work rules and procedures to control various high risk operations, with robust backup from automatic alarms and safety interlocks. A high degree of emergency response preparedness is achieved by a wide range of fire-fighting facilities, well trained response teams and frequent emergency drills. Our standards of safety control compare most favourably with other major utilities in Hong Kong and overseas.

Towngas abides by all legal requirements and cooperates fully with the various government departments responsible for enforcing stringent surveillance to the plants. The Accident Frequency Rate of gas production plants has always been maintained at a low level, with about 0.48 case per 100,000 man hours. Nonetheless, in pursuit of the target of zero accidents, the plant management proactively reviewed the root causes of each incident and implemented every practicable preventive measure. No major gas emergency has happened in the plants for many years. As a long term strategy, Towngas will continue to develop various hazard controls and risk mitigation measures to maximise the safety of its employees, the plants' neighbourhood and the plants themselves, guaranteeing 100% reliability in the whole lifetime of the plants.

# (d) Network Safety

Ensuring network safety, we continue to monitor and enhance our pipeline infrastructure with an active maintenance and rehabilitation programme. Rigorous trench inspections and leakage surveys continue and the introduction of better equipment and technology also provide invaluable support in the maintenance of safety standards.

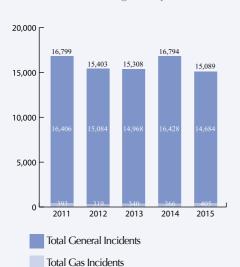
Emergency vehicles equipped with new tablets are now used in the handling of any gas emergency and the use of sensitive laser methane detectors for leakage surveys, as well as advanced technology which check the condition of the coating on steel pipes, were also introduced these years.

In addition, we continue to check our pipes rigorously by sophisticated leakage survey from anywhere between six times a year to once a year to ensure their integrity.

We also augmented the number of trench inspections of third party excavation sites to circumvent damage to nearby Towngas pipelines. In 2015, about 178,336 trench inspections covering 14,044 active sites were made.

# (e) Charts on Emergencies, Safety Inspections and Safety Promotion

### (i) Number of Urgent Reports

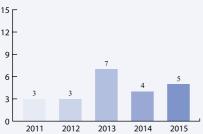


Urgent Reports refer to incidents which require Towngas personnel to attend immediately, whether the incident is gasrelated or not.

Out of the 15,089 Urgent Reports received in 2015, only 405 cases were Gas Incidents. Gas Incidents are town gas-related and are classified according to any of the following situations:

- Reported by Police or Fire Services Communication Centre
- Uncontrolled gas escape (which cannot be ascertained that it can be stopped by turning off the meter control cock)
- Incidents involving injury to a person, whether fatal or non-fatal
- Incidents involving explosion or fire damage to property
- Supply defects

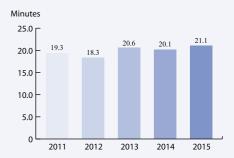
# (ii) Number of Major Gas Emergencies



Out of the 405 Gas Incidents in 2015, 5 cases were Major Gas Emergencies.

Nature of "Major Gas Emergency" is defined in the Gas Safety Ordinance. Suicide cases are not included.

# (iii) Average Response Time for Gas Incidents



The promptness of Towngas' response to emergencies has achieved a world class standard and we will strive to continue improving the level of promptness in the coming year.

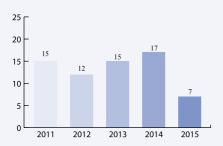
### (iv) Number of Fatal Gas Accidents

Year	2011	2012	2013	2014	2015
No. of Accidents	0	0	0	0	0

Suicide cases are not included.

With Towngas' efforts to promote gas safety and respond promptly to emergencies, the number of fatal accidents from gas emergency incidents has remained at an exceptionally low level throughout the past five years.

# (v) Number of Incidents Involving Third Party Damage



Towngas has been able to keep the third party damage in a relative low level. The number of third party damage was 7 in 2015.

# (vi) Trench Inspection

# Total number of active sites inspected in 2015

Island Kowloon		New Territories	Total	
4,550	4,550 4,808		14,044	

To minimise third party damage to its network facilities, Towngas emphasises close coordination with concerned parties in any excavation work that may subject its pipelines to possible damage. Apart from provision of alignment drawings and safety advice for the third parties, the Company organises safety talks for the construction industry. In 2015, a total of 270 contractor personnel attended our safety talk sessions. Besides, the Company is possibly the only local utility to proactively send its technicians to work at sites to ascertain the alignment of its facilities for maximum safety.

# (vii) Number of Leakage and Pipeline Surveys

Type of pipelines	Frequency of leakage surveys	
Transmission pipelines: - All HP & IPB mains	At least once a year	
Distribution pipelines: - PE or steel pipes over or enclosed within structures - Medium pressure ductile iron pipes or all galvanised iron pipes - Low pressure ductile iron pipes - Others	At least twice a year At least six times a year At least three times a year At least once a year	

HP – High Pressure IPB – Intermediate Pressure B PE – Polyethylene

Under the Company's rigorous leakage survey programme, our qualified technicians perform regular leakage detection on our different types of gas pipes with the help of advanced instruments – including Flame Ionisation Detectors (FID) and Combustible Gas Indicators (CGI). With these sensitive instruments, very low level traces of gas seepage can be detected and rectified before they develop into reported gas escapes. Considering these surveys as effective precautions against major gas escapes, we conduct more leakage and pipeline surveys than our foreign counterparts every year.

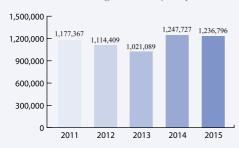
As a result of the stringent and proactive leakage survey and trench inspection programmes, the number of public reported gas escape incident in network was only 0.015 per km per year in 2015. Even if minor seepages located by the sensitive leakage survey were also included, the number was 0.08 per km per year only, much lower than the figures in many other similar metropolitan cities.

# (viii) Major Emergency Drills with Government Authorities in 2015

Type of Drill		Joi	Bomb Threat Drill				
Venue	Tai Po Plant	Ma Tau Kok Plant	Aberdeen Depot	Network (Tai Po)	Braemar Hill Tunnel	Tai Po Plant	Ma Tau Kok Plant
No. of Exercises	2	1	1	1	1	1	1

(Government authorities include Fire Services Department, Electrical and Mechanical Services Department and Police Force)

### (ix) Number of Regular Safety Inspections



Towngas has taken proactive measures to maintain gas safety at customers' homes by initiating on-site safety inspections of their gas installations and external service risers at regular intervals of 18 months.

# (x) Number of Sub-standard Appliances Upgraded

Towngas encourages customers to upgrade their sub-standard appliances through various educational and promotional programmes. In 1999, we introduced a discount scheme to encourage customers to upgrade their water heaters and cooking appliances. In 2015, 186 Flueless (Sink) and Open-flued water heaters, and 447 Non-FFD cooking appliances were removed or upgraded.

# (xi) Number of Safety Exhibitions and Safety Talks

Towngas has been widely recognised for its continuing efforts in promoting home safety. Safety talks and safety exhibitions are major channels through which Towngas enhances the public's awareness and improves their knowledge of gas safety. In 2015, we organised 13 safety exhibitions and 14 safety talks in housing estates and elderly centres. Information panels were exhibited and information booklets on gas safety were delivered.

# (xii) Industrial Safety Performance of Employees



Towngas is committed to providing a safe and healthy environment for its employees. From 2011 to 2015, there have been less than 1 injury accident per 100,000 working hours. Towngas continuously provides training on occupational safety to employees with the aim of further reducing the occurrence of accidents.



# 3. Service Pledge

Initiated in 1994, the Towngas Service Pledge has set high targets in major customer service areas: reliability of gas supply, safety, service attitude, the speed and convenience of service, appointments and complaint handling. Towngas has performed well in the past 21 years and pledges to continue improving its service and to set higher targets to ensure customers get the best possible levels of service.

Results

100%

100%

### (a) Results of 2015

• Reply within 3 working days

will be resolved, within 2 weeks

· Resolution, or a statement of when the matter

Reliability	
<ul> <li>Uninterrupted gas supply (over 99.99%)</li> </ul>	99.992%
• In case of supply interruption on account of maintenance or engineering work (3 days prior notification)	100%
<ul> <li>Restoration of gas supply within 12 hours</li> </ul>	100%
Safety • Emergency teams average arrival time (within 25 minutes)	average 20.96 minutes
<ul><li>Appointments</li><li>Availability of maintenance and installation services within 2 working days</li></ul>	Average 1.12 day
Speed and Convenience	
• Customer Service Hotline (calls answered within 4 rings)	93.21%
<ul> <li>Connect or disconnect gas supply within</li> <li>1 working day (upon customer's request)</li> </ul>	100%
<ul> <li>Deposit refunded at Customer Centres</li> <li>(2 hours after disconnection of gas supply)</li> <li>(upon customer's request)</li> </ul>	100%
Service Quality	
• Efficiency *	8.85
<ul> <li>Courteous and friendly attitude *</li> </ul>	8.86
Handling Suggestions	

<sup>\*</sup> The result was based on surveys conducted by an independent research company. Our target is to exceed a score of eight out of ten.

# (b) Service Pledge for 2016

Towngas pledges to continue improving our service and to set higher targets, aiming at providing our customers with best possible service. The new Pledge has become effective from January 2016, and the annual reporting on performance results will be announced in January 2017.

Pledges		<u>Target</u>
Reliability		
<ul> <li>Uninterrupted gas supply</li> </ul>	-	Over 99.99%
<ul> <li>In case of supply interruption (on account of maintenance or engineering work)</li> </ul>	-	3 days prior notification
<ul> <li>Restoration of gas supply</li> </ul>	-	Within 12 hours
Safety		
• Emergency Teams	-	Arrive on site within 25 minutes
Appointments		
<ul> <li>Availability of maintenance and installation services</li> </ul>	-	Within 2 working days
Speed and Convenience		
<ul> <li>Customer Service Hotline</li> </ul>	-	Calls answered within 4 rings
<ul> <li>Connect or disconnect gas supply</li> </ul>	-	Within 1 working day
<ul> <li>Deposit refunded at Customer Centres supply*</li> </ul>	-	2 hours after disconnection of gas
Service Quality		
• Efficiency	-	8 or above out of a total score of 10
<ul> <li>Courteous and friendly attitude</li> </ul>	-	8 or above out of a total score of 10
Handling Suggestions		
<ul> <li>Written comments or suggestions</li> </ul>	-	Reply within 3 working days
	-	Resolution, or a statement of when the matter will be resolved, within 2 weeks

<sup>\*</sup> To enjoy this service, residential customers are advised to inform us of their request for refunds at the time of making cap-off service appointment. The maximum refund amount is HK\$2,000.

### 4. Customer Liaison

### (a) Customer Focus Team

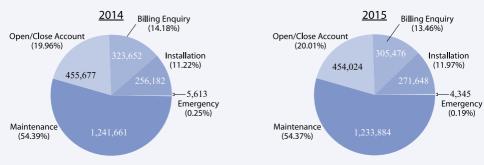
Since its inception in 1993, the Customer Focus Team has provided an effective communication channel between Towngas and its customers. It is a key factor in ensuring that our services meet customer expectations. The Team, comprising managers from customer related departments, visits two public or private housing estates every month. Issues related to Towngas service, gas safety, bill payment and gas appliances are discussed at the meetings. Comments from customers contribute greatly to the improvement of Towngas products and services. In 2015, the Customer Focus Team made 24 visits to its customers.

# (b) Customer Service Hotline and Emergency Hotline



The public can always keep in touch with Towngas through its Customer Service Hotline (CSH) and Emergency Hotline. The CSH – 2880 6988 – provides a convenient one-stop service for customers to enquire about and arrange the full range of Towngas services. The Emergency Hotline – 2880 6999 – operates around the clock, and responds to emergency calls immediately.

# **Number of Incoming Calls by Categories:**

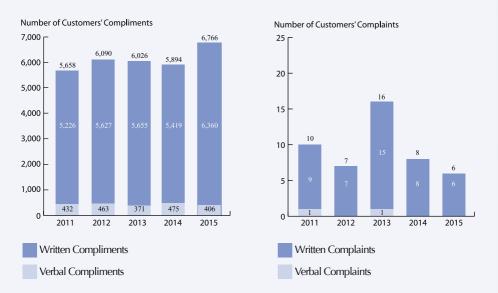


The largest category of incoming calls to the CSH and Emergency Hotlines is maintenance, representing 54.37% of total calls in 2015 while other categories include open/close account, billing enquiry, installation and emergency.

### (c) Bill Inserts to Customers

A bill insert, which comes with the bi-monthly gas bill, is an effective means to keep our customers informed. In 2015, a total of 25 information leaflets on various topics were sent to customers. The topics of these leaflets were mostly related to Towngas services and products, including special offers on appliance, Towngas Avenue, Towngas Cooking Centre, Mia Cucina, green and health products, etc as well as gas safety and energy saving tips.

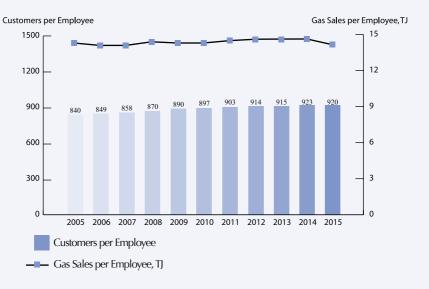
# (d) Number of Customers' Compliments and Complaints



Delivering high quality customer service has always been a Towngas priority. We are more focused than ever on the continuous enhancement of customer satisfaction by providing superior quality service. As a result, there were a total of 6,766 compliments about Towngas' service in 2015, which included 6,360 written compliments and 406 verbal compliments.

Regarding the number of customer complaints, Towngas received a total of 6 complaints in 2015 (6 written complaints and 0 verbal complaints). With 1,839,261 customers as at 31 December 2015, the ratio is 1 complaint per 306,544 customers. Towngas is committed to taking proactive measures to improve product quality and the service attitude of its frontline staff.

# 5. Efficiency (Products and Productivity)



In 2015, Towngas continued to devise and implement measures to maintain high costefficiency without compromising the quality of our services to customers. In addition to bring down the costs of spare parts of gas appliances through vigorous research and development efforts, we have further promoted the use of information technology to attain a higher level of automation throughout our operations.

These measures, together with a range of other initiatives, resulted in a 0.3 per cent slightly decrease in productivity in 2015, which is measured in terms of number of customers served by each employee. In 2015, each Towngas employee served 920 customers, and town gas sales averaged 14.2 TJ per employee. Towngas will continue to seek ways to ensure our customers receive the best and most cost-effective service.

To further improve the working environmental of commercial kitchens, a higher efficiency but with lower noise level burner for wok range and stockpot has been developed. The flame produced is powerful and concentrated which can help the chef to produce tasty and wonderful cuisine under a comfortable environment.

Moreover, our domestic gas water heaters and gas cooking appliances covered under the Energy Efficiency Labelling Scheme have met the thermal efficiency requirements set by the Government.

In addition, our pioneering activities in the use of landfill gas (LFG) have also been gaining momentum. First diversifying into this area at the Shuen Wan Landfill, the use of this renewable energy grew exponentially with the commissioning of our North Eastern New Territories LFG utilisation project in 2007. In 2015, accounting for about 2 per cent of our production fuel, our aim is to grow this resource to 10 per cent. Extending these activities to the South Eastern New Territories landfill site, agreement was signed

with landfill operator in December 2014. Construction of the Plant is in progress and expect it is operational in the third quarter of 2016. The use of LFG not only cuts carbon emissions released into the atmosphere, our consumption of naphtha also fell by around 10,800 tonnes in 2015. These savings alone translate into the planting of some 1.4 million trees.

# 6. Charges

In addition to the gas charge, which is calculated based on customers' gas consumption, Towngas levies a fixed Monthly Maintenance Charge on residential customers which entitles them to reliable, efficient and comprehensive repair and maintenance services for all their gas appliances and installations. Towngas also adjusts the gas charge through a Fuel Cost Adjustment mechanism to reflect fluctuations in fuel prices.

# (a) Monthly Maintenance Charge

The Monthly Maintenance Charge (MMC), which has been frozen at HK\$9.5 since 1998, covers the labour charges for appliance maintenance and repairs, ondemand appliance check-ups, regular safety inspection whereby customers' gas appliances, gas installation pipes and external service risers are inspected by our fully-qualified, registered gas technicians at regular intervals of 18 months, and the 24-hour Customer Service Hotline. Towngas conducted more than 570,000 ondemand maintenance works and more than 1,230,000 Regular Safety Inspections in customers' homes in 2015.

However, MMC does not include the costs of replacing spare parts, rubber hose, stainless-steel braided flexible hose or corrugated stainless steel tube for appliances, nor the costs of repair or replacement of gas installation pipes and external service risers, appliance disconnection and reconnection, or gas meter accuracy testing. To provide our customers with maximum protection, 24-hour emergency services are rendered free-of-charge.

# (b) Fuel Cost Adjustment

The fuel cost adjustment calculation is based on gas consumption and each month's fuel costs. For every complete multiple of HK\$1 by which the effective feedstock cost\* rises above (or falls below) the equivalent of HK\$1,420 per kilolitre of naphtha, the charge for gas will be increased (or reduced) at the rate of HK0.004 cents per MJ.

Customer saved a total of HK\$812 million fuel cost adjustment in 2015 with the using of natural gas in producing town gas.

Effective feedstock cost is the weighted average cost (based on energy content) of different feedstock used for production of town gas.

# 7. Fuel Mix Percentage

In 2015, fuel mix in terms of percentage of naphtha, natural gas and landfill gas used as feedstock is as follows:

Feedstock	Percentage
Naphtha	35%
Natural Gas	63%
Landfill Gas	2%

# 8. Towngas Concession Schemes

Seeking to make a difference for some of the disadvantaged groups in society, we have launched four concession schemes to provide these groups in Hong Kong with additional service benefits. Under the concession schemes, beneficiaries may enjoy a 50% discount off basic gas tariff on the first 500 MJ (around 10.4 units) of town gas consumed, waiver of monthly maintenance charge, initial charge and security deposit, as well as free appliance maintenance and spare parts.

<b>Towngas Concession Schemes</b>	Qualified Applicants *
Concession Scheme for the Elderly	Applicants should be aged over 60 years, living alone or with other qualified senior citizens and living in self-care quarters within public housing estates, or qualified for the Comprehensive Social Security Assistance Scheme (CSSA).
Concession Scheme for People with Disabilities	Applicants should be receiving, or living with a direct family member who is receiving CSSA, and is classified as "100% Disabled" or "Requiring Constant Attendance" under CSSA.
Concession Scheme for Single-parent Families	Applicants should be single-parent family households receiving CSSA under the single-parent category.
Concession Scheme for Low Income Families	Applicants or his/her family member has a regular job income which is taken into account in the assessment of CSSA entitlement. (The "Notification of Successful Application" or "Notification of Revision of Assistance" bears the item of "LESS NET EARNINGS" indicated in two consecutive months of the CSSA payment period.)

<sup>\*</sup> All applicants should be registered Towngas account holders.

In 2015, the overall average amount of savings per beneficiary customer under the Towngas Concession Schemes was HK\$553.

### **ENVIRONMENTAL PROTECTION**

Our "Sustainability Report" has already clearly elaborated our sustainability strategies and set out the targets and standards that we encourage all employees, contractors and suppliers to work towards. Being a responsible public utility, we persistently put efforts to protect the environment and ensure sustainable development. We conserve resources and reduce waste through the adoption of "5Rs" principle. Since 2002, we have reduced, reused and recycled more than 20 items, including retired domestic appliances, commercial and industrial appliances, spare parts, gas meters and used rechargeable batteries etc.

# 1. Environmental Promotional Programmes

We continue to offer our proactive support to various green groups and government-led environmental protection programmes. In 2015, we supported and sponsored the Greeners Action's Cook For Green competition, The Airmazing Race organised by Clean Air Network, as well as collaborated with Friends of the Earth (HK) in the Cherish Food Reward Scheme. We also sponsored and participated in the annual Green Power Hike by Green Power, No Air-con Night and Green Sense Walkathon by Green Sense, Lai See Recycling Programme by Greeners Action, the Green Leaders Bloc by the Conservancy Association, Earth Hour and Walk for Nature by WWF and the Hong Kong Green Day by the Green Council, etc.

# 2. Environmental Training and Education Programmes

In recent years, Towngas has provided a great variety of environmental trainings and educational activities to enhance environmental awareness among our employees and contractors. Programmes conducted in 2015 included the Annual Outstanding Environmental Sub-committee Award, Green Ambassador training, seminars on climate change, eco-detergent making workshop, seminar on sustainable tourism and visit to the Jockey Club Museum of Climate Change, etc. In addition, a rooftop organic farm was set up at Towngas headquarters to demonstrate the practical application of a green and healthy lifestyle. Publication of four issues of the Health, Safety & Environment Bulletin distributed to all employees and our contractors. Green promotional messages were conveyed to employees via email and intranet on regular basis in order to encourage and remind employees to work in line with our environmental policies.

### 3. Environmental Achievements

Towngas was conferred with the U Green Awards – Public Utilities – Excellence presented by U Magazine, Metro Awards for Eco-Business 2015 presented by Metro Daily and City Spirit, the Green China 2015 Environmental Achievement Award – Distinguished Enterprises presented by Wen Wei Po. Moreover, Towngas continues to attain the CarbonCare@ Label and CarbonCare@ Action Label by Carbon Care Asia. We also continue to join the World Green Organisation's GOALS Programme and awarded the Sustainable Business Award. The Class of Excellence Wastewi\$e Label which the Environmental Campaign Committee conferred upon us for the 14 consecutive years was testimony to our strong commitment to waste reduction. With the environmental measures in our headquarters, we received the Hong Kong Green Building Council's Final Platinum rating under the Building Environmental Assessment Method (BEAM) Plus Existing Buildings V1.2 in our headquarters in 2015.

### 4. Environmental Performance

In 2015, Towngas' 12 functional environmental sub-committees achieved over 50

environmental objectives. For instance, we further extended the rainwater collecting system at the Tai Po gas production plant to reduce the use of raw water. Used Gas Appliance Recycling Programme has been held over ten years, which has enabled us to divert around 1,000 tonnes of scrap metal annually from landfill sites. The revenue generated has been added to our green creativity fund, which is used to foster environmental awareness in the community. For more details about our environmental performance and targets, the public can access our website to view or download our "Sustainability Report".

### (a) Environmental Performance Table

(All legal requirements relating to environmental protection were fully complied with)

### **Ozone Layer Protection**

- All of our vehicle air conditioning systems now operate with refrigerant R134A.
- All BCF portable fire extinguishers have been replaced by dry powder extinguishers.
- The central MVAC system in North Point building and Ma Tau Kok building operate with HCFC-free refrigerants.

### Air Quality

- Total NOx output was 3.84 kg/TJ of town gas (Annual total of 106,621 kg, equivalent to a daily average of 292 kg).
- Total SOx output was 0.02 kg/TJ of town gas (Annual total of 476 kg, equivalent to a daily average of 1.30 kg).
- Total CO<sub>2</sub> output was 11.80 MT/TJ of town gas (Annual total of 327,908 MT, equivalent to a daily average of 898 MT).

### Greenhouse Gas Emission

Annual total greenhouse gas emissions of 357,845 MT in terms of CO<sub>2</sub> equivalent.

# **Volatile Organic Compounds (VOC)**

- Estimated annual total VOC emissions was 6.01 kg/TJ of town gas (Annual total of 166,859 kg, equivalent to a daily average of 457 kg).
  - \* Before introduction of natural gas feedstock, estimated annual total VOC emissions was 9.83 kg/TJ of town gas (Annual total of 268,242 kg, equivalent to a daily average of 735 kg).

# Water Quality

 Total waste water output was 3.77 m<sup>3</sup>/TJ of town gas (Equivalent to a daily average of 287 m<sup>3</sup>).

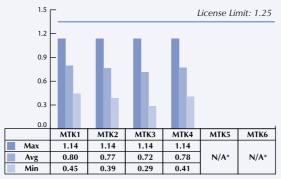
### Chemical Waste

 Total chemical waste output was 0.64 kg/TJ of town gas (Equivalent to a daily average of 49 kg).

### Noise

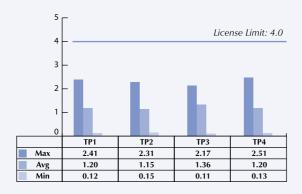
 All installations and operations complied with the statutory requirements. No noise abatement notice has ever been received.

- (b) Emission Level of Gas Production Plants for 2015
- (i) NOx emission level of Ma Tau Kok (MTK) gas making units (Kg/hour)

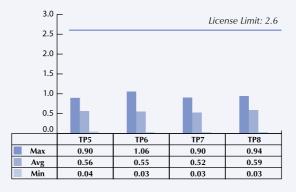


<sup>\*</sup> MTK5 and MTK6 at cold standby in 2015

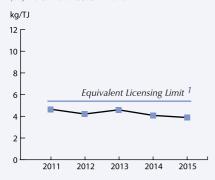
# (ii) NOx emission level of Tai Po (TP) gas making units Phase 1 (Kg/hour)



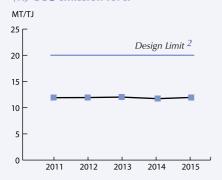
# (iii) NOx emission level of Tai Po (TP) gas making units Phase 2 (Kg/hour)



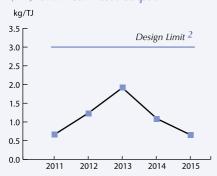
### (iv) NOx emission level



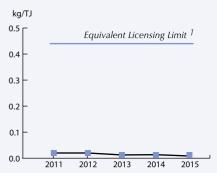
# (vi) CO<sub>2</sub> emission level



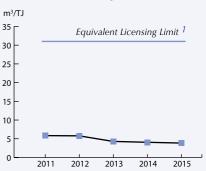
### (viii) Chemical waste output



### (v) SOx emission level



## (vii) Waste water output



<sup>1 &</sup>quot;Equivalent Licensing Limit" (kg/TJ OR m³/TJ) = "Weighted average of actual licensing limit" (kg/hr or m³/hr) ÷ production rate of the plants for the year 2015 (TJ/hr).

<sup>2</sup> As there is no Licensing Limit for the discharge level, we apply the design limit of our production plants as a reference point for the emission level.

### **FINANCIAL INFORMATION**

The figures and financial information relating to the year ended 31st December 2015 as shown in this section are not the statutory annual consolidated financial statements of The Hong Kong and China Gas Company Limited (the "Company") for that year. Further information relating to those statutory financial statements required to be disclosed in accordance with section 436 of the Hong Kong Companies Ordinance (Cap. 622) (the "Companies Ordinance") is as follows:

The Company will deliver the consolidated financial statements for the year ended 31st December 2015 in due course to the Registrar of Companies as required by section 662(3) of, and Part 3 of Schedule 6, to the Companies Ordinance.

The Company's auditor has reported on those consolidated financial statements. The auditor's report was unqualified; did not include a reference to any matters to which the auditor drew attention by way of emphasis without qualifying its report; and did not contain a statement under sections 406(2), 407(2) or (3) of the Companies Ordinance.

### 1. Consolidated Income Statement

for the year ended 31st December 2015

'	HK\$'M
Revenue	29,591.3
Total operating expenses	(22,601.9)
	6,989.4
Other gains, net	101.4
Interest expense	(1,128.6)
Share of results of associates	2,228.2
Share of results of joint ventures	1,715.6
Profit before taxation	9,906.0
Taxation	(1,726.7)
Profit for the year	8,179.3
Attributable to:	
Shareholders of the Company	7,302.0
Holders of perpetual capital securities	110.5
Non-controlling interests	766.8
	8,179.3
Earnings per share – basic and diluted, HK cents	63.2

# 2. Consolidated Statement of Financial Position

as at 31st December 2015

as at 31st December 2013	HK\$'M
Assets	
Non-current assets	
Property, plant and equipment	47,455.6
Investment property	713.0
Leasehold land	1,961.9
Intangible assets	5,819.5
Associates	19,591.9
Joint ventures	9,288.2
Available-for-sale financial assets	4,567.0
Derivative financial instruments	161.5
Other non-current assets	2,371.8
	91,930.4
<b>Current assets</b>	
Inventories	2,291.3
Trade and other receivables	6,896.8
Loan and other receivables from associates	90.9
Loan and other receivables from joint ventures	966.4
Loan and other receivables from non-controlling shareholders	122.6
Financial assets at fair value through profit or loss	12.1
Time deposits over three months	1,326.9
Time deposits up to three months, cash and bank balances	11,925.9
	23,632.9
Current liabilities	
Trade and other payables	(11,936.7)
Amounts due to joint ventures	(572.3)
Loan and other payables to non-controlling shareholders	(181.4)
Provision for taxation	(736.2)
Borrowings	(9,712.3)
Derivative financial instruments	(41.7)
	(23,180.6)
Total assets less current liabilities	92,382.7

# 2. Consolidated Statement of Financial Position (Continued)

as at 31st December 2015

	HK\$'M
Non-current liabilities	
Customers' deposits	(1,282.9)
Deferred taxation	(4,874.7)
Borrowings	(23,363.4)
Loan payables to non-controlling shareholders	(21.9)
Asset retirement obligations	(30.2)
Derivative financial instruments	(654.4)
Retirement benefit liabilities	(42.3)
	(30,269.8)
Net assets	62,112.9
Capital and reserves	
Share capital	5,474.7
Reserves	47,366.7
Shareholders' funds	52,841.4
Perpetual capital securities	2,353.8
Non-controlling interests	6,917.7
Total equity	62,112.9

### 3. Directors' Emoluments

The aggregate amounts of emoluments payable to directors of the Company for their service on the Board of the Company and its subsidiaries undertaking for the year ended 31st December 2015 are as follows:

	HK\$'M
Fees	3.7
Salaries, allowances and benefits in kind	10.8
Performance bonus	33.6
Contributions to retirement scheme	7.6
	55.7

Number of directors whose emoluments fell within:

# Emoluments band (HK\$'M)

0.0 - 1.0	7
14.5 - 15.0	1
37.5 - 38.0	1

The above remuneration paid to directors of the Company also represents the amount of short-term employee benefits of HK\$48.1 million (2014: HK\$47.5 million) and post-employment benefits of HK\$7.6 million (2014: HK\$7.7 million) paid to the Group's senior management during the year ended 31st December 2015. There were no other long-term benefits, termination benefits and share-based payment paid to the Group's senior management during the year (2014: nil).

# 4. Analysis of Residential Maintenance

Net loss on residential maintenance of the Company under the Fixed Monthly Maintenance Charge for the year ended 31st December 2015 is as follows:

	HK\$'M
Residential maintenance revenue	201.8
Less expenses:	
Manpower costs	(136.4)
Other operating and administrative expenses	(111.8)
Net loss	(46.4)

