## T O W N G A S C O R P O R A T E INFORMATION

# 2011

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 2011.

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 Communications Department at 2963 3483.

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#### 1. Annual Business Review

#### (a) Sales and Marketing

Buoyed by the economic boom in China, the large number of inbound visitors as well as the cooler winter weather, our Hong Kong gas business too performed well. Gas sales rose by a positive 2.1 per cent, while customer numbers increased by a further 26,237, bringing our total customer base in the territory to 1,750,553 accounts.

#### **Residential and Commercial Activities**

China's strong financial growth has not only helped to drive Hong Kong's economy, the large number of mainland visitors also benefitted Hong Kong's tourism industry. With the prosperity in the catering and hotel trades, we saw strong gas sales growth in this sector. In the course of the year, we successfully convinced a number of restaurants and food processing facilities to switch from diesel fuel to town gas, which is a cleaner and more convenient fuel.

On the industrial front, we won a key new contract in the aviation catering business and also made strong inroads into the laundry industry, converting a number of diesel boilers to gas. Gas usage at Hong Kong's theme parks is also growing as more attractions are fuelled by gas and patronage continues to rise. As such our commercial and industrial activities performed strongly during the year, with the industrial sector in particular, seeing an increase in gas sales of 18.4 per cent.

With rising oil and electricity prices, town gas offers a competitive energy alternative. Business managers are thus finding that it makes economic sense to switch to gas. At the same time, a number of businesses, particularly those in the food processing industry, are also making the move back to Hong Kong as production costs rise on the mainland. These are benefitting our local gas sales.

This positive trend is further advanced by the comprehensive range of commercial gas appliances tailored for the Hong Kong market. In addition to their high efficiency, they create a cooler and more comfortable working environment – recovering fuel gas for example, not only saves energy, it also creates cooler surroundings and improves air quality. Highlighting our successes in this direction, our self-developed "Cool Kitchen Four Treasures" series, consisting of a steam cabinet, a food steamer, a wok range as well as a stockpot, won the "Machinery and Machine Tools Design Award" in the prestigious "Hong Kong Awards for Industries" in 2011. Just as significantly, we are currently conducting a number of indoor air quality studies at various restaurants and hotels.

Further extending our Quality Living philosophy into the local community, we expanded the coverage of Towngas customer centres by opening further outlets in popular locations and unveiling our flagship Towngas Showcase at our headquarters in North Point. The new showcase, based on an all-in-one concept, displays our full range of gas appliances in simulated settings, featuring demonstration kitchens for both commercial and residential sectors.

We sold some 234,000 appliances during the year and achieved satisfactory sales for our stylish Mia Cucina kitchen series. Offering total kitchen solutions tailored to meet individual customer requirements both in a cost-efficient and environmentally-friendly manner, we have sold more than 2,000 Mia Cucina kitchen units in Hong Kong.

Dedicated to continuous improvement in product design to bring customers ever greater convenience and comfort, we launched a new timer function for our TGC built-in hob series. Our TGC brand received a "Platinum Award" in the "Reader's Digest Trusted Brand Award 2011 – Kitchen Appliance category", confirming the quality and innovation of our products.

#### (b) Serving Our Customers

When conducting our Regular Safety Inspections (RSIs) at customer homes during the year, we paid particular attention to premises which have not been visited in the past five years due to lack of access. RSIs not only enhance safety, but also provide an ideal opportunity to encourage customers to upgrade their appliances. Confirming the value of this strategy, not only is the number of appliances sold through our service technicians and customer call centre staff growing, the number of on-demand service requests is also falling due to the growing use of more up-todate appliances – dropping a significant 6.3 per cent in 2010, the figure fell by a further 13.4 per cent in 2011.

We also work with the government and a range of service organisations to take the safety message into the community. During the year, we carried out a number of gas safety briefings for major property management companies and housing estates to help them recognise how to prevent gas leaks and keep gas installations in sound condition.

On the other hand, customer satisfaction levels are also rising. Tracking studies consistently indicate high levels of customer satisfaction while the number of compliment letters received over the years has risen steadily. In 2011, we received 5,226 written letters, an increase of 3 per cent over the previous year, praising us for our services.

#### (c) The Gas Infrastructure

Despite our service supply continuity rate of 99.99 per cent, one of the highest international standards, we ensure the ongoing improvement of our gas infrastructure, including our two production plants at Tai Po and Ma Tau Kok and a gas network consisting of some 3,500 kilometres of pipeline, covering about 86 per cent of homes in Hong Kong. In line with our vision to provide services with an environmentally-friendly focus, natural gas, probably the cleanest fossil fuel available today, accounts for about 57 per cent of our production fuel while landfill gas (LFG) accounts for about 2 per cent and naphtha makes up the balance.

Our use of LFG, a by-product in the decomposition of city solid waste, is particularly noteworthy. Its use not only captures an otherwise unwanted energy source, it also reduces the emission of both methane, a greenhouse gas, as well as vast amounts of carbon dioxide, caused by flaring off the LFG into the atmosphere.

Efforts to increase our use of natural gas are also continuing. The laying of a 15 km pipeline to bring natural gas to our production plant in Ma Tau Kok is nearing completion. We are also extending the gas mains from Kowloon Bay to the new cruise terminal in South East Kowloon, together with further network improvements to cater for several large food processing factories at the Tai Po Industrial Estate and a number of seafood restaurants in Lei Yue Mun.

Work is also progressing on the 9 km ring-feed pipeline that will enhance supply reliability in the Northwest New Territories. A twin submarine pipeline of around 3.3 km between Ma Tau Kok and North Point is also planned for relocation to facilitate the building of the new cruise terminal as well as the strategic Central Kowloon Route.

A major maintenance project during the year was the completion of the "fingerprint" inspection of the 34 km twin natural gas high pressure pipeline that links the Guangdong LNG Terminal to our production plant in Tai Po. The inspection showed that the pipeline is in an excellent condition.

#### (d) Towards a Sustainable Future

In recent years, there has been growing debate on environmental sustainability as higher populations, greater industrialisation and increasing pollution take their toll. Fully aware of these global concerns, we have always made every attempt to treat our environment with respect.

In line with this philosophy, we introduced landfill gas into the gas production process in 1999 and natural gas, probably the cleanest fossil fuel available, in 2006. Together they account for about 60 per cent of our total production today.

Enhancing our green programmes in Hong Kong, we established a Green Development Steering Committee, which apart from developing environmental key performance indicators, will be looking into carbon footprint studies of a typical gas appliance. In mainland China, building on the tremendous success of our carbon reduction competition in 2010, the exercise was repeated in 2011. Receiving a total of 47 submissions against 38 in the previous year, these projects reduced carbon emissions by 10,000 tonnes in 2011, equivalent to the carbon dioxide removed by 430,000 trees annually.

We supported activities organised by green groups both in Hong Kong and on the mainland. These ranged from Friends of the Earth (HK)'s tree planting challenge to Hong Kong Green Sense's "No Air-con Night" and the WWF's "Earth Hour" initiative. We also sponsored the Conservancy Association's "Green Leaders Bloc" which recruits and trains university students to help protect the environment as well as Green Power's "World Environmental Day – Let's Go Low Carbon" campaign seeking to publish a storybook about Emperor Penguins targeted at primary students. Driving low-carbon development in the commercial sector, we participated in "Eco Expo Asia 2011", organised by the Hong Kong Trade Development Council.

A "Low-carbon Mid-Autumn Fun" campaign was also held to promote environmental awareness whilst celebrating the Mid-Autumn Festival. In addition to an exhibition of over 200 graffiti Chinese lanterns, workshops were held enabling participants to design their own eco-friendly graffiti lanterns.

These efforts are widely recognised in the community. We received the "WasteWi\$e Label – Class of Excellence" yet again and we also won the Green Council's "Green Management Award – Silver Award". Following our winning of the Grand Award in the "Hang Seng Pearl River Delta Environmental Awards" last year, we were once again named as a "Green Medalist" in the awards this year.

#### (e) Empowering Our People

Training and development is crucial to our activities, both from a professional and a cultural viewpoint. Professionally it guarantees a pool of talented and able employees who will help us to achieve our business goals. Culturally it ensures that our people not only share our goals but that we do so with mutual respect as well as with like-minded expectations and standards.

We were thus delighted to receive the American Society for Training and Development (ASTD)'s "BEST Award" for our well-established corporate culture and employee development programmes in our China operations. ASTD is one of the world's most well-known associations dedicated to workplace learning and the development of professionals. Winning this recognition is all the more rewarding as it is the first time that we have participated in the award.

On a professional level, our training programmes provide our employees with the necessary skills and expertise to carry out their jobs. To this end, our Towngas Engineering Academy carries out a number of trainee and apprenticeship schemes, helping to add new blood into the gas industry. Together with refresher training both for our employees and contractors, train-the-trainer programmes as well as continuing professional development talks and seminars, which promote a lifelong learning culture.

A highlight during the year was the "Leading Others" programme introduced to strengthen leadership competencies among our supervisors and managers in Hong Kong. Based on our vision, mission and values, some 56 frontline managers and supervisors completed this course in its first launch.

Our "Graduate Trainee Scheme" is set to celebrate its 30th anniversary in 2012. Commending us for our achievements in this direction, we received an award from the Hong Kong General Chamber of Commerce for the scheme. A further 10 graduate trainees were recruited for our businesses in 2011 to build a pool of talent for the future.

In August 2011, we launched the second round of our "Corporate Towngas Leadership Competencies" scheme for 19 executives chosen from our various operations. This 18-month talent acceleration scheme aims to stretch the abilities, not only of participants but also of the people around them, as colleagues, supervisors and mentors are also invited to join in some of the courses and activities.

In building a sustainable workforce, the well-being of our employees is critical to establishing loyalty and trust. During the year, we launched our internal corporate culture promotional campaign, "Wenxin" programme – "Wenxin" translates into "warmth and care" in English, not only to show our appreciation and thank our people for their help and support, but also to increase their involvement in the company and strengthen their ties in our Towngas family.

As part of this programme, members of our Executive Committee and management visited staff working outdoors in summer, distributing towels and cooling herbal tea prepared by a social enterprise. We also launched a 24-hour hotline, "Warmth Express", providing professional and confidential counselling services to help employees deal with stress and other emotional or personal issues that they may need to resolve. A song-writing competition was held, looking for new lyrics for our Towngas theme song, to highlight our warm and caring corporate culture.

These family-friendly policies as well as our commitment to family core values won us yet another award during the year. In addition to our rankings in the past as one of the top ten most preferred employers in Hong Kong, we were honoured with the "Distinguished Family Friendly Employer Award", presented by the Family Council.

#### 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 2011, 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 1,170,000 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

Maintaining the highest standards of health and safety, we arranged safety trainings and safety and health measures for our staff and contractors. During the year, there were 7 industrial accidents, resulting in an Accident Frequency Rate of 0.16. No fatal accident occurred within the year.

Driving a culture of safety and improving emergency procedures internally, we held a number of joint fire exercises with the Fire Services Department. These exercises helped ensure that our emergency response team would work closely with the Fire Services Personnel in the operations.

Taking this message to our suppliers, contractors and the local community, we organised the Health, Safety and Environment (HSE) Day for more than 1,500 staff, contractors and their family members. Contractor Safety Programmes such as Site Safety Award, HSE Forum, Site Housekeeping Matching Game for colleagues and contractors were organised. These activities not only bought in highly positive responses, they also raised greater awareness of occupational safety and health. Also, a number of HSE trainings were organised including "Talk on Duties and Liabilities of Proprietors & Contractors on Safety" and mass communication with contractors to further improve their HSE awareness.

During the year, we won Safety Management System Gold Award, OSH Annual Report Gold Award & Safety Performance Award in the 10th Hong Kong Occupational Safety & Health Award Competition organised by the Occupational Safety & Health Council. Also, we joined the International Safe Workplace Programme under the framework of the World Health Organization Safe Community initiative, and were designated as International Safety Workplace, the first utility in Hong Kong to be entitled of the designation.

#### (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, our Company's supply reliability continues to be one of the best in the utilities and reached a level of 99.992% in 2011. Our Company exerted great efforts in safeguarding the conditions and availability of the two gas plants. Ma Tau Kok gas production plant has over 34 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 25 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 1.09 case per 100,000 man hours worked and the accidents were usually minor cases. 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

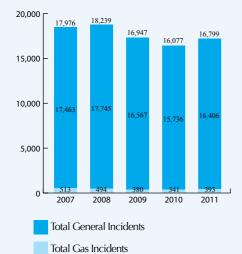
Ensuring network safety, we continue to monitor and enhance our pipeline infrastructure with an active maintenance and rehabilitation programme. Rigorous trench inspections and leakage surveys continue and the introduction of better equipment and technology also provide invaluable support in the maintenance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

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

Despite the fact that our activities and appliances meet stringent international standards, we continue to make every effort to enhance their safety even further. 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 2011, about 167,053 trench inspections covering 16,533 active sites were made.

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



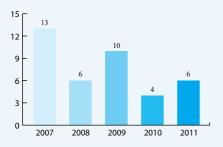
#### (i) Number of Urgent Reports

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

Out of the 16,799 Urgent Reports received in 2011, only 393 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

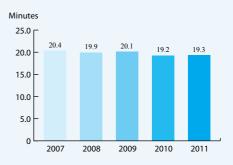




Out of the 393 Gas Incidents in 2011, only 6 cases were Major Gas Emergencies.

 Nature of "Major Gas Emergency" is defined in the Gas Safety Ordinance.

#### (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.

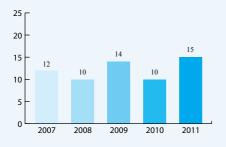
#### (iv) Number of Fatal Gas Accidents

Year	2007	2008	2009	2010	2011
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 significantly reduce the number of incidents involving third party damage over the past five years. Figure in 2011 was also kept in a relative low level when compare to the average 29 incidents per year over the period from 2002 to 2006.

#### (vi) Trench Inspection

Total number of active sites inspected in 2011

Island	Kowloon	New Territories	Total
5,499	6,227	4,807	16,533

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 2011, a total of 182 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.

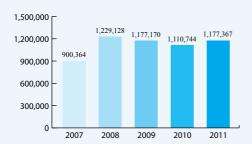
#### (vii) Number of Leakage and Pipeline Surveys

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 galvanized 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 inspections on our different types of gas pipes with the help of advanced instruments – including Flame Ionization 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 0.025 per km per year in 2011. Even if minor seepages located by the sensitive leakage survey were also included, the number was 0.13 per km per year only, much lower than the figures in many other similar metropolitan cities.



#### (viii) 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.

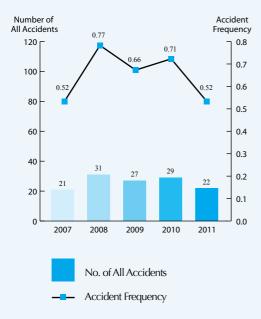
#### (ix) Number of Sub-standard Appliances Upgraded

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 2011, 320 Flueless (Sink) and Open-flued water heaters were upgraded.

#### (x) 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 2011, we organised 13 safety exhibitions and 5 safety talks in housing estates and elderly centres. Information panels were exhibited and information booklets on gas safety were delivered.

#### (xi) Industrial Safety Performance of Employees



Towngas is committed to providing a safe and healthy environment for its employees. From 2007 to 2011, 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 17 years and pledges to continue improving its service and to set higher targets to ensure customers get the best possible levels of service.

Results

#### (a) Results of 2011

Reliability	11004110
Uninterrupted gas supply (over 99.99%)	99.992%
<ul> <li>In case of supply interruption on account of maintenance or engineering work (3 days prior notification)</li> </ul>	100%
Restoration of gas supply within 12 hours	100%
<ul> <li>Safety</li> <li>Emergency Team arrived on site within 30 minutes (at 95% of the times)<sup>1</sup></li> </ul>	96.18%
Appointments	
<ul> <li>Availability of maintenance and installation services within 2 working days</li> </ul>	Average 1.03 day
Speed and Convenience	
Customer Service Hotline (calls answered within 4 rings)	95.33%
<ul> <li>Connect or disconnect gas supply within 1 working day (upon customer's request)</li> </ul>	100%
<ul> <li>Deposit refunded at Customer Centres (2 hours after disconnection of gas supply) (upon customer's request)</li> </ul>	100%
Service Quality	
• Efficiency <sup>2</sup>	8.77
<ul> <li>Courteous and friendly attitude <sup>2</sup></li> </ul>	8.79
Handling Suggestions	
Reply within 3 working days	100%
• Resolution, or a statement of when the matter will be resolved, within 2 weeks	100%

1. Average 19.82 minutes.

<sup>2.</sup> The result was based on monthly surveys conducted from January to December 2011 by an independent research company. Our target is to exceed a score of eight out of ten.

#### (b) Service Pledge for 2012

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 2012, and the annual reporting on performance results will be announced in January 2013.

Pledges		Target
Reliability		
Uninterrupted gas supply	-	Over 99.99%
<ul> <li>In case of supply interruption (on account of maintenance or engineering work)</li> </ul>	-	3 days prior notification
Restoration of gas supply	-	Within 12 hours
Safety		
Emergency Teams	-	Arrive on site within 30 minutes, at 95% of the times
Appointments		
• Availability of maintenance and installation services	-	Within 2 working days
Speed and Convenience		
Customer Service Hotline	-	Calls answered within 4 rings
Connect or disconnect gas supply	-	Within 1 working day
Deposit refunded at Customer Centres	-	2 hours after disconnection of gas supply*
Service Quality		
Efficiency	-	8 out of a total score of 10
Courteous and friendly attitude	-	8 out of a total score of 10
Handling Suggestions		
• Written comments or suggestions	-	Reply within 3 working days
	-	Resolution, or a statement of when the matter will be resolved, within 2 weeks

\* 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.

#### 4. Customer Liaison

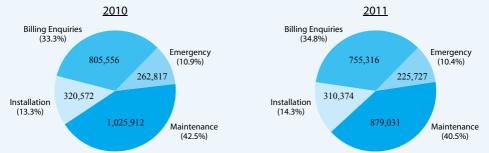
#### (a) Customer Focus Team

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 2011, 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 – operating around the clock, 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 40.5% of total calls in 2011 while other categories include billing enquiries, installation and emergency.

#### (c) **Bill Inserts to Customers**

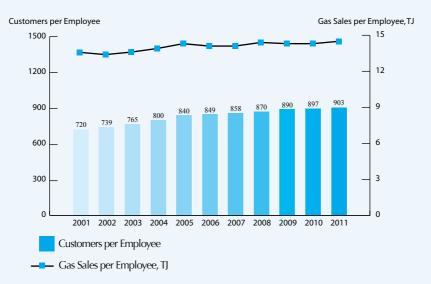
A bill insert, which comes with the bi-monthly gas bill, is an effective means to keep our customers informed. In 2011, a total of 21 information leaflets on various topics were sent to customers. The topics of these leaflets were mostly related to Towngas services and products, appliance special offers, Towngas Avenue special offers, Towngas Cooking Centre special offers, Mia Cucina offers, gas safety and energy saving tips.

#### Number of Customers' Compliments Number of Customers' Complaints 6,000 25 г 5.658 5,532 5.554 5,000 20 4,100 4.069 17 4,000 16 15 5.226 5,074 3,000 10 10 Q 3,710 2.000 5 1.000 3 390 427 451 458 432 0 2007 2008 2009 2010 2011 2007 2008 2009 2010 2011 Written Compliments Written Complaints Verbal Compliments Verbal Complaints

#### (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 5,658 compliments about Towngas' service in 2011, which included 5,226 written compliments and 432 verbal compliments.

Regarding the number of customer complaints, Towngas received a total of 10 complaints in 2011 (9 written complaints and 1 verbal complaints). With 1,750,553 customers as at 31 December 2011, the ratio is 1 complaint per 175,055 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 2011, 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 1% increase in productivity in 2011, which is measured in terms of number of customers served by each employee. In 2011, each Towngas employee served 903 customers, and town gas sales averaged 14.5 TJ per employee. Towngas will continue to seek ways to ensure our customers receive the best and most cost-effective service.

Supplying more than 200 town gas appliance models and 30 Liquefied Petroleum Gas appliance models in Hong Kong, Towngas continuously developed more green products with value added functions to preserve our environment and satisfy customer needs. In 2011, our self-developed "Cool Kitchen Four Treasures", consisting of a steam cabinet, a food steamer, a wok range as well as a stockpot, won the "Machinery and Machine Tools Design Award" in the prestigious "Hong Kong Awards for Industries". These "Four Treasures" cooking appliances are equipped with various patented efficiency enhancement technologies which can help to save the fuel consumption by 20% to 30% and provide the restaurant trade the ideal "Efficient-Cool" kitchens.

For residential appliances, we upgraded a series of double-ring burner hobs to more energy efficient sealed burner hobs with automatic flame cut-off timer functions. The easy-to-clean sealed burner design and the time functions also make the cooking easier and simpler. 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 utilization project in 2007. Currently 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, the planning and design of a connection pipeline is currently under review. The use of LFG not only cuts carbon emissions released into the atmosphere, our consumption of naphtha also fell by around 14,000 tonnes in 2011. These savings alone translate into the planting of some 1.9 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 560,000 ondemand maintenance works and more than 1,170,000 Regular Safety Inspections in customers' homes in 2011.

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.

Customers' total saving of \$2,175 million fuel cost adjustment in 2011 after using 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 2011, fuel mix in terms of percentage of naphtha, natural gas and landfill gas used as feedstock is as follows:

Feedstock	Percentage
Naphtha	41%
Natural Gas	57%
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 megajoule (around 10.4 units) of town gas consumed, waiver of monthly maintenance charge, initial charge and security deposit, as well as free appliance maintenance service.

Towngas Concession Schemes	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.)

\* All applicants should be registered Towngas account holders.

In 2011, the overall average amount of annual savings per beneficiary customer under the Towngas Concession Schemes was \$509.

#### **ENVIRONMENTAL PROTECTION**

Our "2011 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. Our well-established waste management practices have been extended to include the collection and recycling of retired domestic appliances, commercial and industrial appliances, spare parts, gas meters and used CDs etc. We reduce, reuse and recycle more than 20 items since the programmes introduced in 2002.

#### 1. Environmental Promotional Programmes

We continue to offer our proactive support to environmental protection agencies and government-led environmental protection programmes. In 2011, we sponsored and participated the annual "Green Power Hike" organised by Green Power, "Tsim Bei Tsui ECO Tour" organised by Green Sense, the "Walk for the Environment" organised by the Conservancy Association, the "Tree-planting Challenge 2011" and "River Walk 2011" organised by Friends of the Earth (HK), the "Earth Hour" – a worldwide Light off event and the "Walk for Nature 2011" organised by WWF, as well as the No-Air-con Night campaign by Hong Kong Green Sense.

#### 2. Environmental Training and Education Programmes

In recent years Towngas has organised a large number of environmental training and educational activities to promote environmental awareness among our employees and contractors. Programmes conducted in 2011 included the Annual Outstanding Environmental Sub-committee Award, "Take a Brake" Fuel Saving Competition organised by Friends of the Earth (HK), technical visit to Plastic Resources Recycling Center by green ambassadors. Publication of four issues of the Health, Safety & Environment Bulletin distributed to all employees and our contractors. Green promotional messages were displayed on desktop screen savers on a rotating monthly basis in order to encourage and remind employees to work in line with our environmental policies.

#### 3. Environmental Achievements

Towngas was conferred with the Gold Award in the 2011 Hong Kong Awards for Environmental Excellence (HKAEE) under the category of Public Organisations and Utilities Sector. Towngas also received the Silver Category of "Green Management Award 2011" under the Hong Kong Green Awards. The "Class of Excellence" Wastewi\$e Label 2011 which the Environmental Campaign Committee conferred upon us for the 10 consecutive year was testimony to our strong commitment to waste reduction.

#### 4. Environmental Performance

In 2011, Towngas' 12 functional environmental sub-committees achieved over 40 environmental objectives. For instance, our "Used Gas Appliance Recycling Programme" is now in its ninth year, and 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 "2011 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.
- By 2015, all existing building central air conditioning system will operate with HCFC-free refrigerants.

#### Air Quality

- Total NOx output was 4.65 kg/TJ of town gas (Annual total of 130,116 kg, equivalent to a daily average of 356 kg).
- Total SOx output was 0.02 kg/TJ of town gas (Annual total of 529 kg, equivalent to a daily average of 1.5 kg).
- Total CO<sub>2</sub> output was 11.91 MT/TJ of town gas (Annual total of 333,305 MT, equivalent to a daily average of 913 MT).

#### Greenhouse Gas Emission

• Annual total greenhouse gas emissions of 362,307 MT in terms of CO<sub>2</sub> equivalent.

#### Volatile Organic Compounds (VOC)

- Estimated annual total VOC emissions was 5.8 kg/TJ of town gas (Annual total of 163,019 kg, equivalent to a daily average of 447 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 5.84 m $^3$ /TJ of town gas (Equivalent to a daily average of 447 m $^3$ ).

#### **Chemical Waste**

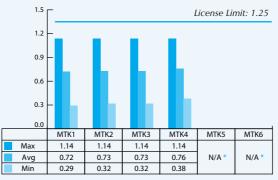
• Total chemical waste output was 0.67 kg/TJ of town gas (Equivalent to a daily average of 51 kg).

#### Noise

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

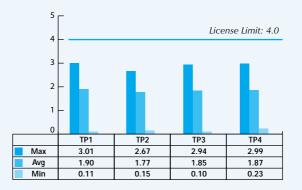
#### (b) Emission Level of Gas Production Plants for 2011

(i) NOx emission level of Ma Tau Kok (MTK) gas making units (Kg/hour)

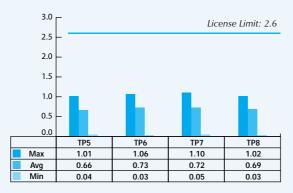


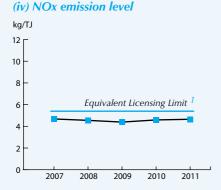
\* MTK5 and MTK6 at cold standby in 2011

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

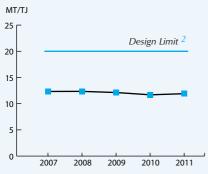


(iii) NOx emission level of Tai Po (TP) gas making units Phase 2 (Kg/hour)

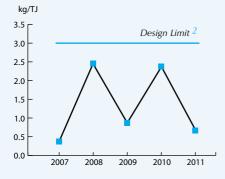




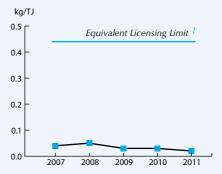
#### (vi) CO<sub>2</sub> emission level



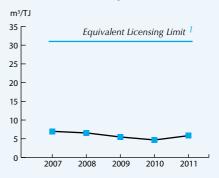
#### (viii) Chemical waste output



#### (v) SOx emission level



#### (vii) Waste water output



- "Equivalent Licensing Limit" (kg/TJ OR m<sup>3</sup>/TJ) = "Weighted average of actual licensing limit" (kg/hr or m<sup>3</sup>/hr) ÷ production rate of the plants for the year 2011 (TJ/hr).
- 2. As there is no Licensing Limit for the discharge level, we apply the design limit of our production plants as a reference point for our control limit.

#### FINANCIAL INFORMATION

#### 1. Consolidated Income Statement

for the year ended 31st December 2011

Revenue22,42Total operating expenses(16,75)	52.2)
	52.2)
	7.4.6
5,67	4.6
Other gains, net 58	39.7
Interest expense (75	52.0)
Share of profits less losses of associated companies1,64	47.7
Share of profits less losses of jointly controlled entities 90	)8.7
Profit before taxation 8,00	58.7
Taxation (1,34	14.0)
Profit for the year 6,72	24.7
Attributable to:	
Shareholders of the Company 6,14	19.6
Non-controlling interests 57	75.1
6,72	24.7
Dividends 4,14	47.8
Earnings per share – basic and diluted, HK cents	77.8
Analysis of Net Loss on Residential Maintenance	
under the Fixed Monthly Maintenance Charge	
for the year ended 31st December 2011	
,	\$′M
Residential maintenance revenue 18	38.6
Less expenses:	
Manpower costs (11	(3.3)
Other operating and administrative expenses (9	90.1)
Net loss (*	4.8)

#### 2. Consolidated Balance Sheet

as at 31st December 2011

	HK\$′M
Assets	
Non-current assets	
Property, plant and equipment	32,255.1
Investment property	518.0
Leasehold land	1,351.2
Intangible assets	3,434.8
Associated companies	12,706.8
Jointly controlled entities	8,964.7
Available-for-sale financial assets	3,110.6
Derivative financial instruments	452.3
Retirement benefit assets	81.4
Other non-current assets	2,258.9
	65,133.8
Current assets	
Inventories	1,622.4
Trade and other receivables	5,606.7
Loan and other receivables from associated companies	73.3
Loan and other receivables from jointly controlled entities	468.1
Loan and other receivables from non-controlling shareholders	135.4
Financial assets at fair value through profit or loss	313.3
Time deposits over three months	493.7
Time deposits up to three months, cash and bank balances	11,242.2
	19,955.1
Current liabilities	
Trade and other payables	(7,990.5)
Amounts due to jointly controlled entities	(31.7)
Loan and other payables to non-controlling shareholders	(282.4)
Provision for taxation	(878.0)
Borrowings	(4,220.8)
	(13,403.4)
Net current assets	6,551.7
Total assets less current liabilities	71,685.5

#### 2. Consolidated Balance Sheet (Continued)

as at 31st December 2011

	HK\$′M
Non-current liabilities	
Customers' deposits	(1,165.7)
Deferred taxation	(2,444.1)
Borrowings	(21,628.4)
Loans payable to non-controlling shareholders	—
Derivative financial instruments	(115.1)
	(25,353.3)
Net assets	46,332.2
Capital and reserves	
Share capital	1,975.1
Share premium	3,275.8
Reserves	33,133.5
Proposed dividend	3,199.7
Shareholders' funds	41,584.1
Non-controlling interests	4,748.1
Total equity	46,332.2

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#### 3. Auditors' Report

(Extract from The Hong Kong And China Gas Company Limited Annual Report 2011 Page 69) TO THE SHAREHOLDERS OF THE HONG KONG AND CHINA GAS COMPANY LIMITED (incorporated in Hong Kong with limited liability)

We have audited the consolidated accounts of The Hong Kong and China Gas Company Limited (the "Company") and its subsidiaries (together, the "Group") set out on pages 70 to 156, which comprise the consolidated and company balance sheets as at 31st December 2011, and the consolidated income statement, the consolidated statement of comprehensive income, the consolidated cash flow statement and the consolidated statement of changes in equity for the year then ended, and a summary of significant accounting policies and other explanatory information.

#### Directors' responsibility for the accounts

The directors of the Company are responsible for the preparation of consolidated accounts that give a true and fair view in accordance with Hong Kong Financial Reporting Standards issued by the Hong Kong Institute of Certified Public Accountants, and the Hong Kong Companies Ordinance, and for such internal control as the directors determine is necessary to enable the preparation of consolidated accounts that are free from material misstatement, whether due to fraud or error.

#### Auditor's responsibility

Our responsibility is to express an opinion on these consolidated accounts based on our audit and to report our opinion solely to you, as a body, in accordance with section 141 of the Hong Kong Companies Ordinance and for no other purpose. We do not assume responsibility towards or accept liability to any other person for the contents of this report.

We conducted our audit in accordance with Hong Kong Standards on Auditing issued by the Hong Kong Institute of Certified Public Accountants. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the consolidated accounts are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated accounts. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the consolidated accounts, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation of consolidated accounts that give a true and fair view in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by the directors, as well as evaluating the overall presentation of the consolidated accounts.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

#### Opinion

In our opinion, the consolidated accounts give a true and fair view of the state of the affairs of the Company and of the Group as at 31st December 2011, and of the Group's profit and cash flows for the year then ended in accordance with Hong Kong Financial Reporting Standards and have been properly prepared in accordance with the Hong Kong Companies Ordinance.

#### PricewaterhouseCoopers

*Certified Public Accountants* Hong Kong, 19th March 2012

#### 4. Directors' Emoluments

for the year ended 31st December 2011

The aggregate amounts of emoluments payable to directors for their service on the Board of the Company during the year are as follows:

	HK\$'M
Fees	2.2
Salary, Allowances and Benefits in Kind	8.6
Performance Bonus	32.7
Contributions to Retirement Scheme	7.1
	50.6

Number of directors whose emoluments fell within:

Emoluments Group (HK\$'M)
0.0 - 0.5
14.5 - 15.0
33.5 - 34.0

The above remuneration paid to directors of the Company also represents the amount of short-term employee benefits of HK\$43.5 million (2010: HK\$41.6 million) and post-employment benefits of HK\$7.1 million (2010: HK\$6.4 million) paid to the Group's key management during the year ended 31st December 2011. There were no other long-term benefits, termination benefits and share-based payment paid to the Group's key management during the year (2010: nil).

