

THE MAINLAND CHINA GAS BUSINESS

Expanding our footprint

107

city-gas businesses serving
14.82 million customer
accounts

Sold over

1.5 million

Bauhinia appliances since
2005



Won the most competitive China city-gas operator 2012 title presented jointly by Economy magazine, China Trade News, China Co-operation Times, the Chinese Industrial Economy Research Centre and Chinese Economy Innovation and Development Alliance

Towngas China was presented with the "Top 10 Stock Price Gainers" in the "Top 100 Hong Kong Listed Companies" ranking by Finet Group Limited and Tencent

Serious gas-related incidents dropped by

20 per cent



THE MAINLAND CHINA GAS BUSINESS

While it was our Hong Kong operations that celebrated its 150th Anniversary, this milestone has also made an invaluable contribution to our businesses on the mainland.

With 150 years of service behind us, established management culture and high service and safety standards, added to the fact that we were listed as a Top 500 company by the Financial Times, our already impeccable reputation soared. We thus cemented our role not only as an established leader in the industry, but also as a successful and international business that is making an essential contribution to modern society in China.

Based on these solid foundations, our businesses in mainland China continued to grow and thrive. During the year, Hong Kong & China Gas Investment Limited, set up in Shenzhen to manage the Group's investments on the mainland, celebrated its 10th birthday. We also added a further 12 businesses to our portfolio, bringing the number to a total of 150 projects and ventures in 22 provinces, municipalities and autonomous regions throughout the country. In addition to our upstream, midstream and

downstream city-gas businesses, these activities also include telecommunications and water projects as well as a burgeoning range of energy resources and logistics, green and new energy activities and applications. Reaching a total turnover of HK\$56.3 billion for the year, a growth of 17.6 per cent over 2011.

Our City-gas Operations

With 107 city-gas businesses operating in 20 provinces, municipalities and autonomous regions, not only are we one of the largest city-gas suppliers in China, our piped gas services also continue to form the backbone of our activities on the mainland. While China was not immune to the uncertainties that plagued the global environment during the year, we nevertheless witnessed continued growth in our sales volumes, which increased by 15 per cent to reach a total of 11.9 billion cubic metres. Our customer numbers too rose to around 14.82 million customer accounts.



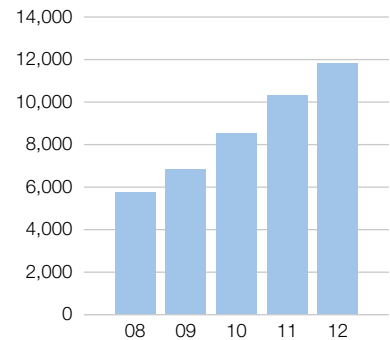
Gas boilers are used to dry the smelter by a large-scale power engine manufacturer.

While the economy in China may have experienced a slowdown in the past year, our outlook remains bright. Growth in GDP and energy consumption is forecast to remain significantly higher in Asia than the rest of the world for the foreseeable future and China is also seeing increasing urbanisation, a major driver for piped gas sales. In 2011, urbanisation stood at just 51.3 per cent in China, well below the average of 80 per cent in developed countries around the world. Coupled with the country's growing focus on clean energy, China's total natural gas consumption is expected to rise to 230 billion cubic metres by 2015 under the country's Twelfth Five-Year Plan; increasing supplies of natural gas as more and more

infrastructure projects open up; and as natural gas is used in wider applications, China's natural gas consumption is set to grow exponentially into the future.

Making the most of this positive market environment, our strategy is clear. Despite the keen competition, our aim is to grow our business by some 10 new projects or so a year in the next several years. At the same time, building on China's role as the world's manufacturing capital and, as our commercial and industrial activities provide us with both higher margins and greater usage, we are placing our focus on areas where there will be high commercial and industrial demand and where there will be a plentiful supply of natural gas.

China Joint Ventures Gas Sales (million m³)





Our 200 modern customer centres provide easy access to a full range of gas services and appliances.

Upstream and Midstream Facilities

Together with our natural gas exploration facility in Jilin province, liquefied coalbed methane facility in Shanxi province, our coal-based methanol plant in Inner Mongolia, as well as the coke and coke oven plant taking shape in Jiangxi province, our upstream portfolio is experiencing rapid and diverse growth.

The exceptional growth enjoyed by our midstream operations in 2011 carried into 2012. During the year,

we acquired a new pipeline project in Henan province as well as a gas pipeline project in Dalian, Liaoning province, which together with our high-pressure pipeline ventures in Anhui, Hebei, Zhejiang and Jilin provinces, together with the LNG Receiving Terminal in Guangdong province, performed well. The ventures in Hebei and Anhui provinces in particular experienced strong growth, picking up a number of new supply areas and helping to drive midstream gas sales to 2.6 billion cubic metres, an increase of 22 per cent over the previous year.

Enhancing our Customer Services

Making sure that our customers have easy access to both our products and services, we make every effort to provide efficient and economical one-stop services that will cover their needs throughout the entire service spectrum. Our customer service network with 200 customer service centres in 75 cities lies at one end of this service spectrum, with regular maintenance and safety inspections rounding it off at the other. Customers can thus not only sign on for city-gas services and choose from a range of modern and quality Bauhinia gas appliances in one easy step, they can also be assured that they will enjoy the highest standards of convenience, quality and safety supported by regular inspections and ongoing maintenance. In line with our 150th Anniversary celebrations, we continued our “Service with Smiles” campaign including publishing a training manual for frontline staff and managers to further enhance our friendly and caring service culture.

As part of this one-stop service model and to drive the greater use of safe and quality gas equipment in the home, we introduced our own brand of Bauhinia appliances in 2005, becoming the first gas supply company to also market service appliances in mainland China. In 2012, reflecting the success of this model, we sold over 500,000 Bauhinia units, a growth of 30 per cent over 2011. Since Bauhinia's inception in 2005,

we have now sold over 1.5 million units in total. These impressive numbers have brought the brand strong customer recognition.

Serving our business customers, studies and workshops were held to explore relevant markets on the distribution of energy resources as well as to share our knowledge and experience on new and existing energy applications in the commercial and industrial sector.

In view of the rapidity of our growth as well as the diversity of computer systems used by our different business ventures, integrating information and standardising procedures have proven to be a major challenge. Tackling this problem, we launched our Towngas Management System to create a common platform for the different computer systems to share information, create linkages and most important of all, allow individual systems to talk to each other. Since then the system has grown and expanded and first phase completion is expected by the end of 2013. A point of pride is that the project has been developed and managed by our own specialist teams in-house, resulting in a very positive “low-cost, high-performance” solution for the Group.



Leading the industry, our latest Bauhinia built-in hob and rangehood provide a 15 per cent saving in energy compared to other cookers.

Improving Gas Safety and Risk Management

The strong leadership that we hold in the industry is due in great part to our high standards of safety. This uncompromising attitude has proven its value and over the years, there has been a visible improvement in our accident and safety figures both among our staff and our customers. We are thus delighted to report that in 2012, the number of serious gas-related incidents fell

again by a positive and encouraging 20 per cent. On the customer front, the backbone of our safety activities continued with our Regular Safety Inspections, which are carried out annually to check the condition of both gas piping and gas appliances in customer homes. These inspections greatly boost gas safety as they not only identify and prevent possible problems, they also enable the gas safety message to be taken directly to the customer.

Internally, we make every effort to imbue a safety mindset not only among our own employees but also our partners and contractors. “Walking the talk” at the highest levels of management, Group Safety Committee Meetings are held every month. In addition to addressing safety issues, members of this committee also carry out safety inspections in person to ensure that the highest levels of safety are being met. These activities in turn are supported by the activities of our highly successful “General Manager



The “Service with Smiles Ambassadors” Campaign worked to encourage our frontline staff to provide caring and efficient services.

Monthly Safety and Risk Management Programme”.

Our “Year of Safe Operation” campaign, analysing key operating factors to identify areas of high risk, was extended to Eastern China during the year, following its successes in Shanxi and Shandong provinces as well as Northeastern and Southwestern China. Seven Key Management Focus and five “We Deliver” projects were subsequently implemented improving safety and business performance in the region.

Coupled with ongoing risk assessment exercises – a special workshop was held for senior management and the corporate risk assessment committee to formulate risk control strategies for example, and our safety and risk management audits, we are seeing increasing improvement in our overall standards. Audits completed in 2012 record an average score of 83 out of 100, substantially higher than the 71 recorded in 2006 when the first audits were conducted.

Gas Businesses in Mainland China in 2012

	Year of Establishment	Project Investment Rmb M	Registered Capital Rmb M	Equity Share %
TOWNGAS PIPED CITY-GAS PROJECTS				
Guangdong Province				
Panyu	1994	260	105	80%
Zhongshan	1995	240	96	70%
Dongyong	1998	132	53	80%
Jianke	2002	45	23	100%
Shunde	2004	200	100	60%
Shenzhen	2004	2,316	1,980	26.8%
Chaoan	2007	185	99	60%
Chaozhou Raoping	2011	189	106	60%
Central China				
Wuhan	2003	1,200	420	50%
Xinmi	2009	205	85	100%
Eastern China				
Yixing	2001	246	124	80%
Taizhou	2002	200	83	65%
Zhangjiagang	2003	200	100	50%
Wujiang	2003	150	60	80%
Xuzhou	2004	245	125	80%
Suining	2009	85	34	100%
Fengxian	2009	60	31	100%
Danyang	2004	150	60	80%
Jintan	2006	150	60	60%
Tongling	2006	240	100	70%
Suzhou Industrial Park	2001	600	200	55%
Changzhou	2003	248	166	50%
Nanjing	2003	1,200	600	50%
Fengcheng	2007	206	88	55%
Pingxiang	2009	87	35	100%
Jiangxi	2009	52	26	56%
Zhangshu	2009	86	34	100%
Yonganzhou	2010	100	68	93.9%
Shandong Province				
Jinan East	2003	610	470	50%
Northern China				
Jilin	2005	247	100	63%
Beijing Economic-technological Development Area	2005	111	44	50%
Hebei Jingxian	2011	186	79	81%
Northwestern China				
Xi'an	2006	1,668	1,000	49%
Hainan Province				
Qionghai	2008	110	50	49%
MIDSTREAM PROJECTS				
Guangdong LNG	2004	7,628	2,289	3%
Hangzhou NG	2005	760	304	10%
Anhui NG	2005	750	250	27.5%
Hebei NG	2005	1,560	520	45%
Jilin NG	2007	360	220	49%
Suzhou NG	2009	60	40	29%
Henan Xuedian – Xinmi – Dengfeng NG	2012	125	50	49%

TOWNGAS CHINA PIPED CITY-GAS PROJECTS

Guangdong Province	Northeastern China
Foshan	Benxi
Shaoguan	Chaoyang
Qingyuan	Tieling
Yangdong	Fuxin
	Shenyang Coastal Economic Zone
Eastern China	Yingkou
Nanjing Gaochun	Dalian Changxingdao
Maanshan	Dalian Economic and Technical Development Zone
Bowang	
Anqing	
Chizhou	Anshan
Tunxi	Lvshun
Huangshan	Kazuo
Huizhou	Beipiao
Tongxiang	Wafangdian
Huzhou	Xinqiu
Yuhang	Changchun
Changjiu	Gongzhuling
Fuzhou	Qiqihar
Jiujiang	
Wuning	Hebei Province
Xiushui	Qinhuangdao
Yifeng	
Changting	Southwestern China
Shandong Province	Ziyang
Jimo	Weiyuan
Laoshan	Pengxi
Zibo	Lezhi
Zibo Lubo	Pingchang
Longkou	Dayi
Jinan West	Yuechi
Jinan Changqing	Cangxi
Weifang	Chengdu
Weihai	Zhongjiang
Taian	Jianyang
Chiping	Pengshan
Linqu	Mianyang
Laiyang	Xinjin
Zhaoyuan	Xindu
Pingyin	Qijiang
	Guilin
Hunan Province	
Miluo	

MIDSTREAM PROJECT

Wafangdian NG

THE HONG KONG GAS BUSINESS

Contemporary living

Introduced the prestigious
Scholtès
appliance brand to provide
high-end kitchen solutions

Sales growth in
the industrial
sector reached
22.6 per cent

Received **5,627**
written compliment letters –
the highest on record



Listed as a Global 500 company by the Financial Times, the only Asian company to be included in the “Gas, water & multi-utilities sector”

Our “Four Treasures” cool kitchen series won the Hang Seng Pearl River Delta Environmental Award – Silver Award

TGC won the Platinum Award in Reader’s Digest’s Trusted Brand Survey once again



THE HONG KONG GAS BUSINESS

With the celebration of our 150th Anniversary, we have not only survived the passage of time, we remain, as ever, a vibrant and dynamic organisation, which continues to enjoy vigorous growth.

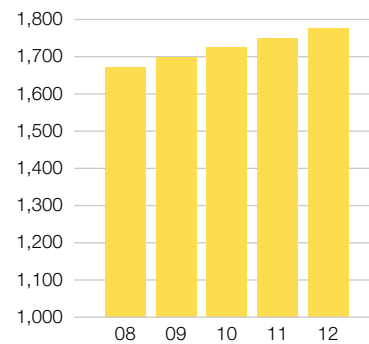
Starting as a relatively small company to provide public lighting for the streets of Hong Kong in 1862, we have since evolved into the Asian energy conglomerate that we are today. We now hold a market capitalisation of over HK\$190 billion, over 150 companies, more than 16 million customer accounts, and a diversity of utility and energy

activities in Hong Kong, mainland China and the South East Asian region. The message is clear – Towngas is here, not only to stay but also to prosper!

Looking forward, we are seeking to grow our vision and broaden our activities even further with the introduction of our brand new management theme – Expanding New Horizons – from 2013 onwards.

Number of Customers

Company (Thousand)



Celebrating our 150th Anniversary, we not only launched a range of signature appliances and TV commercials, we also held a celebratory party, exhibitions, cooking competitions and community events.



煤氣公司150周年誌慶酒會 Towngas 150th Anniversary Cocktail



Our Residential and Commercial Activities

During the year, new customer accounts continued to grow at a steady rate, rising by a further 25,807 customers, to a total of 1,776,360 accounts. However, both the warmer weather as well as the slowdown in the global economy had a knock on effect in Hong Kong affecting gas sales. The total volume of gas sales thus rose a slight 0.8 per cent in comparison to 2011.

Our commercial and industrial activities however continued to do well. Working in close partnership with customers to create tailored solutions for their specific needs, together with the addition of several new customers, particularly in the laundry and food processing

businesses, we saw sales growth of 22.6 per cent in the industrial sector over 2011.

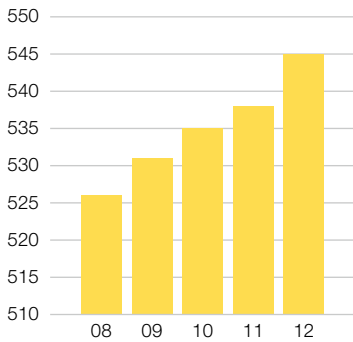
Serving Hong Kong's commercial kitchens, our "Four Treasures" cool kitchen series continued its ongoing success. In addition to the design award won in the Hong Kong Awards for Industries last year, it won the Hang Seng Pearl River Delta Environmental Award – Silver Award for its energy saving properties in 2012. Equipped with a waste energy recycle system, these appliances can save up to 30 per cent in gas usage. Expanding this range, we introduced a heat recovery device that can be fitted to a stockpot, recovering flue heat to heat water elsewhere in the kitchen, together with an automatic programmable meat

roaster to increase the productivity of meat roasting.

This close partnership with Hong Kong's Food and Beverage (F&B) trade is ongoing. Members of our F&B Environment Protection Group are always available to provide professional advice on saving energy and reducing emissions, as well as maximising efficiencies and cost-savings in Hong Kong's commercial kitchens. During the year, the group provided professional advice to more than 800 small and mid-range restaurants in this aspect. Taking these activities yet further forward we opened our Towngas Green Kitchen – literally a "green" kitchen where our partners in the trade can see the benefits of our Towngas commercial appliances and applications.



Number of Customers per km of Mains Company



Our gas supply network extended to the popular seafood restaurants of Lei Yue Mun in 2012.

On the domestic front, innovation and technology play a key role in the launch of our new products. Commemorating our 150th Anniversary, we introduced our 150th Special Edition – TGC Perfecto Series, which include a unique Vortex Built-in Hob and Infinity Water Heater. Highlighting their success, the Vortex Built-in Hob won the 2012 Hong Kong Awards for Industries: Consumer Product Design while the Infinity Water Heater won the Japan Good Design Award 2012. A further item launched during the year, the TGC Y-Hob with its contemporary and stylish appearance, together with its dual counter-top or built-in facility, also won the Japan Good Design Award 2012.

In addition to our new TGC appliances we also introduced a well-known European brand – Scholtès. With almost 100 years of French cuisine behind it, the full range of Scholtès appliances from cooking hobs and ovens to fridges, dishwashers and wine cabinets, provides high-end solutions for Hong Kong’s kitchens.

This commitment to excellence has helped us to maintain our appliance sales over the years and in 2012, notwithstanding the slower market, we achieved healthy growth in sales revenue by 6.1 per cent over 2011 with over 241,000 appliances sold.

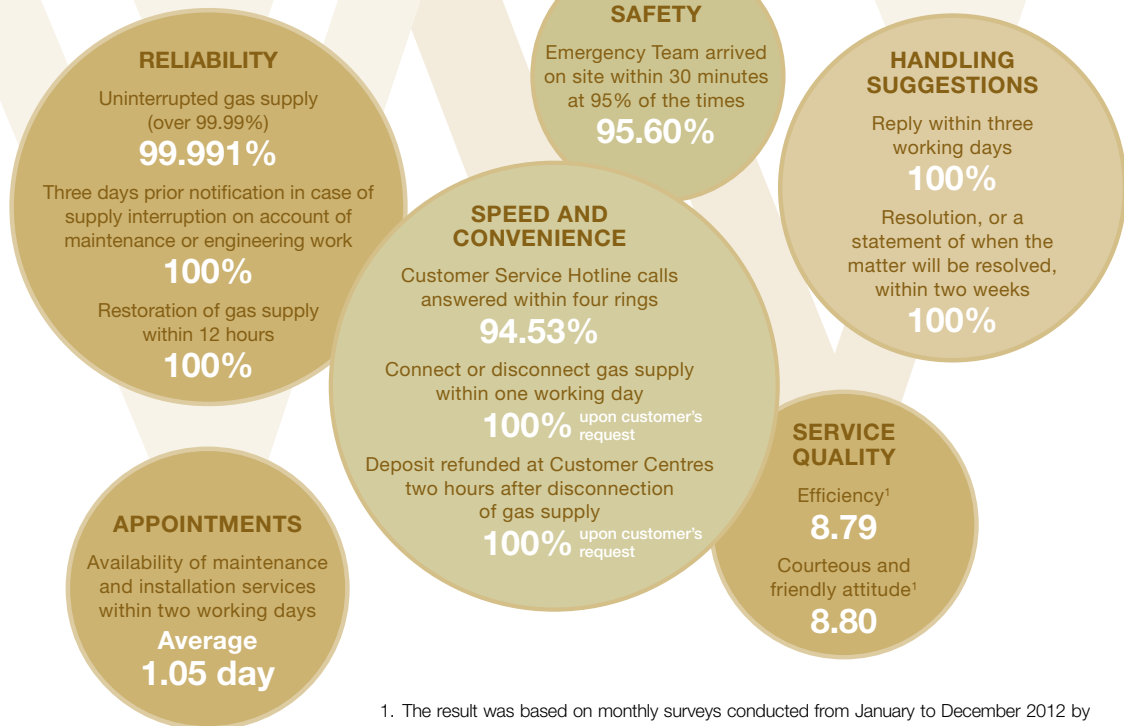
As part of our 150th Anniversary, we held our innovative “City WOW” celebration campaign, when over

1,500 businesses in Hong Kong worked with us to offer 8,000 Super Jetso coupons, specials deals and big discounts to Towngas customers. We also organised the first “Towngas Young Master Chef” cooking contest for secondary students. The Champion was able to realise her dream to attend a cooking course at Le Cordon Bleu in Paris.

Improving Our Customer Services

Over the years we have established an excellent reputation for customer service, winning numerous awards along the way, achieving high ratings in customer satisfaction surveys, as well as

Results of Towngas Service Pledge 2012



1. The result was based on monthly surveys conducted from January to December 2012 by an independent research company. Our target is to exceed a score of 8 out of 10.

receiving an increasing number of complimentary letters every year. 2012 was no exception and during the year we received 5,627 letters, which translates into 15 letters a day for every day of the year. Sing Tao Daily readers again voted us as an Excellent Service Brand in the “Excellent After-sales Service” category.

Despite this positive situation we continue our efforts to not only meet but surpass customer expectations and 2012, set up as an “innovative service year”, saw the launch of our “5-Heart” service programme. Working in tandem with this extended service

programme, we also introduced a new Call Centre System, which uses the latest technology to enable our customers to get in touch with us in a number of ways – both traditionally, by phone and fax, and digitally via email, web chat or SMS.

Our ongoing Regular Safety Inspections continue to bear fruit. Apart from inspecting the safety of pipes and appliances in customer premises, we are also placing a special focus on replacing older equipment – such as cookers without flame failure devices, flueless and conventional-flued water heaters, with appliances that have more up-to-date safety

features. The number of these items have now fallen to less than 5,000 throughout Hong Kong.

The focus on digital communication has been a major driver in our communications with our younger customers and the great majority of our recent customer and community initiatives have incorporated and even rely on both smartphone and Internet applications. Our communications in this direction have been so successful that our Towngas App gained a trophy in the United Nations’ World Summit Award – Mobile Content in the “m-Government and Participation” category.

The Gas Infrastructure

Hong Kong enjoys a high rate of supply continuity with a service supply rate of 99.99 per cent. These services are provided by our gas production and pipeline infrastructure which consists of two production plants at Tai Po and Ma Tau Kok with a combined production capacity of 12.26 million cubic metres a day, as well as our gas network which, with some 3,500 kilometres of pipeline, links almost every inhabited corner of Hong Kong to our services.

In line with our commitment to the environment we make every attempt to use green production fuels in our activities. Natural gas, currently the cleanest fossil fuel available, thus accounts for the lion's share, reaching around 55 per cent of our total feedstock

usage. Landfill gas (LFG) contributes about 2 per cent and the remainder is made up by the light fuel oil, naphtha. Looking forward we expect both the use of natural gas and LFG to increase – the former with the completion of a 15-km natural gas pipeline bringing this fuel to our Ma Tau Kok plant and the latter, as talks are in good progress with the Hong Kong Government on the use of LFG from the Southeastern New Territories (SENT) landfill site. Once SENT is up and running we expect to more or less double our use of LFG. We are particularly focused on the use of this methane-rich gas as it turns what would be an otherwise waste material into a valuable resource. It also reduces the use of fossil fuels as well as the release of greenhouse gases into the atmosphere.

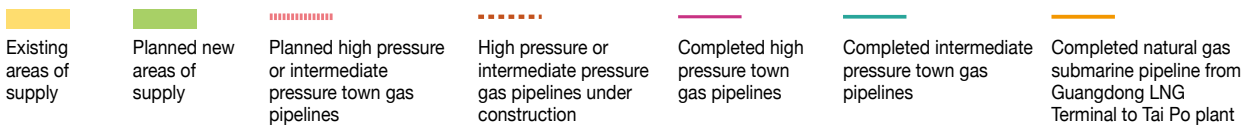
In addition to the natural gas pipeline from Tai Po to Ma Tau Kok, which is nearing completion, we are also carrying out the relocation of a twin submarine pipeline between To Kwa Wan and North Point to cope with the Government's new development plans in South East Kowloon. Consisting of about 8 km of pipeline in total, this project is expected to be finished at the end of 2013. The 9-km ring-feed pipeline in the Northwest New Territories is also progressing and is about halfway accomplished, while a number of network extension projects bringing gas services to new customers in Lei Yue Mun and the Tai Po Industrial Estate for example, were also delivered.



The "Laparobot", an innovative tool developed in-house, removes dip pipes in old metallic network in an environmentally-friendly and cost effective manner.

“ We place huge commitment and care on safety and remind ourselves of the need for vigilance at all times. A number of customers in Tai Po lost service in early June. A burst salt water main affected our pipelines in the vicinity – leading to water ingress into the pipeline system, services were disrupted to a large area. Working around the clock, our efforts and committed team spirit prevailed and services were restored to most customers the next day and totally back to normal within 56 hours. ”

Towngas Network in Hong Kong



The use of new technology plays a crucial role in enhancing our ongoing operation efficiencies. A pilot installation to replace our aging underground galvanised iron pipes with corrugated polyethylene (PE) piping was carried out successfully. We also introduced a

number of innovations, a new Ovality Measurement Tool, for instance, enhance the quality control of PE fusion joints; the “Laparobot” removes dip pipes in condensate receivers which are used for collecting water condensate in gas in the older metallic network

to facilitate trenchless pipe insertion rehabilitation work; and the “Predator” uses infra-red thermography to locate leakage points in underground piping. All three inventions were developed in-house and are the first of their kind in the world.

OUR NEW ENERGY AND DIVERSIFIED BUSINESSES

Driving innovation and change



ECO's coalbed methane plant gained
ISO14001:2004 certification

"The Enterprise with Advanced Technology in China" award
by the Xi'an Government

ECO operates a total of
22 businesses in
Hong Kong and China

Established **G-Tech**
to manufacture quality PE piping

Took on our first overseas
onshore oilfield project in
Thailand

OUR NEW ENERGY AND DIVERSIFIED BUSINESSES

As more and more of our new and diversified businesses come on stream, this sector of our business is not only gathering momentum, it is beginning to make an increasing contribution to the overall activities of the Group.

New ECO Energy

Our new management theme “Expanding New Horizons” is particularly apt for this area of our business where, our first exploratory steps into a project have opened up whole new worlds for growth. Our first renewable gas project, using landfill gas (LFG) at the Shuen Wan landfill site in Hong Kong in 1999, is a prime example. Though a very small project in itself, it laid the foundations for our activities that turn waste into a valuable gas resource. Today, as we seek to develop both new and more gas areas for the Group, this key objective defines a major aspect of our new energy business – converting waste resources and low grade feedstock into high value energy.

While this “new energy” initiative is still very much in its infancy, we have become a pioneer in the field with a range of diverse activities and established projects. Starting with just two businesses in the early 2000s, ECO Environmental Investments Limited (ECO), our environmentally-friendly energy

arm, now operates 20 energy businesses on the mainland in addition to the aviation fuel facility as well as our liquefied petroleum gas (LPG) filling stations in Hong Kong.

A Pioneer in the Field – Turning Waste into Energy

Riding on our traditional core competencies in chemical processing and our successful activities in this sector, this area of activity has now become a key focus in our business operations. Beginning with our LFG operation, this portfolio has grown to include our coalbed methane liquefaction

and coal to methanol plants. This portfolio will be expanding even further in view of our growing interest in the use of coke oven gas, tar oil, biomass, etc.

In 2008, we commissioned our coalbed methane liquefaction facility in Shanxi province, the largest of its kind in mainland China. Using cryogenic techniques to liquefy the coalbed gas, this very clean liquid fuel can be transported easily to wherever it is needed. Now fully commissioned, the plant, with its annual capacity of 250 million cubic metres, is not only furthering supplies to our city-gas operations, it is also generating



With an annual capacity of 200,000 tonnes, our clean coal methanol plant in Inner Mongolia is currently undergoing pilot operations.

profits for the Group. Moving forward, we are actively looking into a number of similar opportunities on the mainland.

The benefits of these projects are multifold. Not only do they turn a waste methane resource into valuable market products, they also help to conserve existing fossil fuels and reduce the level of greenhouse gases emitted into the atmosphere. The extraction of the highly-flammable coalbed gas before coal is mined also creates a safer working environment for miners.

Apart from making use of methane from various resources, we are also keeping our eyes on the production of syngas, a simple gaseous product which can in turn be synthesised into other products such as different clean fuels or chemical feedstock. To this end, we commenced the building and operation of a coal to methanol plant in Inner Mongolia. This facility is currently undergoing pilot production with an annual production capacity of 200,000 tonnes of methanol. As methanol is in itself a block feedstock which can easily be converted chemically into products such as gasoline, dimethylether, propylene, etc, we have commenced efforts to further “reform” the methanol into a higher value gasoline additive.



A liquefied natural gas filling station for heavy-duty trucks in Chiping, Shandong province.

In our bid to remain at the forefront of the new energy arena, ECO’s research and development centre is focusing on the use of waste and low value materials to produce higher value products and new energy. A recent focus is to develop new technology to upgrade tar oil, a by-product in the coal carbonisation process, into clean vehicle fuels. The technology can also be adapted to convert non-mineral oil feedstocks such as used cooking oil. We expect to be able to turn this research into viable commercial projects in 2013.

A great deal of development work has been undertaken in the upgrading of coke oven gas, turning it either into methane, methanol or other high grade liquid fuels. Our team is also testing an innovative approach to gasify agricultural waste by turning it into syngas, for further conversion into different clean fuel products.

Energy-related Logistics and Infrastructure Activities

Our activities in this area first commenced when we won a contract from the Hong Kong Government in 2000 to build and operate five dedicated LPG filling stations to provide cleaner energy to replace diesel for Hong Kong’s fleet of taxis and public light buses. This line of business has since expanded onto the mainland and ECO now operates nine natural gas refilling stations, with five further facilities under construction, for vehicles in Anhui, Shaanxi, Shanxi, Shandong, Henan and Liaoning provinces. These stations provide clean and economic fuel for heavy-duty trucks and public buses in the region.

We moved into the world of aviation fuel in 2002 with the construction and subsequent operation of the

aviation fuel facility in Tuen Mun serving the aviation fuel needs of the Hong Kong International Airport. This facility, which consists of eight large fuel tanks capable of storing up to 264,000 cubic metres of aviation fuel, opened in 2010. Completing its second year of operation in 2012, business is proceeding smoothly. With its throughput of 6 million tonnes of fuel a year, it is one of Hong Kong's largest energy infrastructure facilities. Seeking the use of more environmentally-friendly fuel for the aviation industry, there is increasing talk of bio-jet fuels to reduce carbon emission. As bio-energy is one of our key areas of focus, ECO is actively exploring this possibility.

Energy Resources

Feeding the coal requirements of our methanol plant, we own and operate two coal mines in the vicinity. The Xiaoyugou underground mine in Inner Mongolia, with an annual production capacity of 1.2 million tonnes of coal, commenced trial operations during the year and is expected to be fully commissioned in 2013. The Kejian open-pit coal facility, acquired in 2011 and located nearby is also operating well.



ECO's logistics port in Jining, Shandong province, to be fully commissioned in the fourth quarter of 2013, is connected to upstream suppliers by rail and downstream via the famous Beijing-Hangzhou Grand Canal.

Our energy resource portfolio took a major leap forward during the year with our first overseas oilfield project. We acquired a 60 per cent effective stake in the development of onshore oilfield, located conveniently about 250 km north of Bangkok in Thailand. Evaluations are currently under way studying the sustainable expansion of production levels. The experience gained from this project will enrich our upstream oil and gas capabilities, preparing us for further opportunities ahead.

Hand-in-hand with these developments, we are also looking into the use of shale gas which has

proven to be very successful in the United States. Accounting for just 1 per cent of US natural gas production in 2000, this figure had grown to over 20 per cent by 2010. With China estimated to have the world's largest shale gas reserves, there is tremendous scope for development.

Safety and Risk Management

With more and more businesses coming on stream under our ECO umbrella, safety and risk management are key to the company's success. Safety Steering Committees were established for its Hong Kong

operations and other businesses. Its corporate emergency plan was also updated to incorporate all its businesses. Training was carried out at the Xiaoyugou mine and table-top exercises, to ensure that the emergency management team will be fully familiar with emergency response procedures, were also conducted both at the mine and the methanol plant in Inner Mongolia. The "General Manager Monthly Safety and Risk Management Programme" was also extended to ECO's natural gas filling stations with 70 inspections conducted during the year.

Telecommunications

Gaining substantial synergies and economies of scale, we expanded our services into the telecommunications industry with an optical fibre network that rides on our gas network using either glass-in-gas (GIG) or glass-along-gas (GAG) techniques. Managed and operated by Towngas Telecommunications Limited (Towngas Telecom) this optical network provides high-end telecommunication infrastructure services as well as efficient and quality network solutions for telecom carriers, service providers and large corporations.

With the growing demand for outsourced IT and cloud computing services in recent years, our data centre business, which also provides management and operations for computer equipment housed in our centre, has seen a major boom, bringing our existing facilities very rapidly to saturation point. Addressing the situation, we began the construction of a new Internet Applications Centre with a floor area of around 22,000 square metres in the Tseung Kwan O Industrial Estate, where the Hong Kong Government's data centre hub for the Asian Region is also taking shape. Phase I of this world-class facility is scheduled for commissioning in 2013.

Expanding onto the mainland in 2007, we currently operate seven telecom ventures in

Liaoning, Shandong and Jiangsu provinces and riding the vast demand for IT services, we also operate two data centres – one in Jinan, Shandong province and the other in Dalian, Liaoning province.

Water Supply and Waste Water Operations

Our water businesses, managed and operated by Hong Kong & China Water Limited (Hua Yan Water) continued to do extremely well. The Group had invested in and was operating four water projects. Performing significantly above forecasts, water sales in our three projects in Wuhu, Wujiang and the Suzhou Industrial Park rose 6 per cent to reach over 393 million tonnes during the year.



Construction of the Bowen Drive Salt Water Pumping Station, the Magazine Gap Road Salt Water Service Reservoir and associated works by U-Tech for the Water Supplies Department.

These strong sales are due to a variety of reasons – not only are we seeing organic demand growth but we have also been expanding our networks to cover the surrounding newly developed districts.

With the growing demand for water supply and expectations for higher water quality, we are actively seeking additional water project opportunities throughout the country. This resulted in the addition of a new water supply project in Maanshan, Anhui province to Hua Yan Water's portfolio in early 2013.

Civil and Building Services Engineering

Branching out from its initial expertise in the building of both underground and aboveground pipeline systems, U-Tech Engineering Company Limited (U-Tech) has developed into a reputable construction contractor, specialised in civil and building services engineering. During the year, U-Tech took on a number of waterworks and drainage pipeline installation projects for the Hong Kong Government and private organisations. Now an Approved Contractor for Public Works under the categories of Waterworks Group C and Roads & Drainage Group A, the company is currently working on a 60 km water mains replacement project in Shatin, Sai Kung and Tseung Kwan O,

12 km of which will be rehabilitated by trenchless technology, for the Water Supplies Department. Work on a salt water reservoir and pumping station is also progressing and expanding its range of services, U-Tech is also carrying out a number of building addition and alternation, electrical installation and building services projects.

Manufacturing Facilities

In 2000, GH-Fusion Corporation Limited was formed to manufacture polyethylene (PE) pipe fitting and jointing products for both gas and water piping systems. In September 2012, broadening the product scope and offering a total solutions package to customers, G-Tech Piping System Company Limited, the Group's wholly owned

subsidiary, was established to manufacture quality PE piping. Located in Zhongshan, Guangdong province, the new facility is currently being commissioned with production expected in 2013.

M-TECH Metering Solution Company Limited (M-TECH), a wholly-owned Towngas subsidiary established in 2011, to develop, manufacture and market smart metering solutions via the new generation of gas meters using Micro-Electro-Mechanical Systems technology in the measurement of mass flow. The manufacturing plant in Longgang, Guangdong province is now in production. An Interactive Metering System model for commercial customers will be launched in 2013 while a residential version is currently under development.



A technician tests one of the new-generation smart meters manufactured by M-TECH.

New Energy and Other Projects in 2012

	Year of Establishment	Project Investment Rmb M	Registered Capital Rmb M	Equity Share %
NEW ENERGY PROJECTS				
Coal Mining				
Jiangxi Fengcheng	2008	1,100	236	25%
Inner Mongolia Erdos Xiaoyugou	2009	447	120	70.1%
Inner Mongolia Erdos Kejian	2011	450	150	100%
Coal-based Chemical				
Jiangxi Fengcheng	2009	1,250	350	40%
Inner Mongolia Erdos	2009	1,170	400	70.1%
CNG/LNG Filling Stations				
Shaanxi Xianyang	2007	12	12	100%
Shaanxi Huitai	2010	54	27	60%
Anhui Maanshan	2006	15	11	30%
Shanxi Yuanping	2008	40	20	42%
Dalian DETA	2010	40	20	49%
Shandong Chiping	2010	30	15	70%
Shandong Jining	2010	30	15	51%
Shandong Dongping	2010	43	26	91%
Henan Xinmi	2011	29	15	100%
Shandong Jiaxiang	2012	50	28	70%
Henan Anyang	2012	30	15	100%
Upstream Projects				
Shanxi LCBM	2006	600	200	70%
Jilin Tianyuan	2007	140	5	50%
LCMM Project	2010	520	180	50%
Coal Logistic Project				
Shandong Jining Jiaxianggang Logistic Port	2011	540	180	55%
TELECOMMUNICATION PROJECTS				
Shandong Jinan	2007	80	40	90.1%
Shandong Jinan Chibo	2009	170	68	65.5%
Liaoning Dalian DETA	2010	14	10	49%
Dalian Yida	2011	190	76	90%
Shandong Laiyang	2011	14	10	90%
Xuzhou Fengxian	2011	11	8	100%
WATER PROJECTS				
Wujiang	2005	2,450	860	80%
Suzhou Industrial Park	2005	3,685	2,197	50%
Wuhu	2005	1,000	400	75%
Suzhou Industrial Park (Industrial Wastewater Treatment)	2011	828	300	49%
OTHER PROJECTS				
Shenyang Sanquan Construction Supervisory	2011	4	3	60%
M-TECH	2011	60	30	100%
GH-Fusion	2002	87	43	50%
Towngas Technology	2011	30	21	90.1%
Suzhou Industrial Park Broad Energy Services	2012	170	71	25%
	Year of Establishment	Project Investment USD M	Registered Capital USD	Equity Share %
OILFIELD PROJECT				
Thailand Phetchabun	2012	181	12,000	100%

CORPORATE SOCIAL RESPONSIBILITY

With care and commitment

Launched a new form of urban art
with 150 artistically designed gas

pit covers

in Hong Kong

“Wenxin”


continued to spread warmth
and care throughout our
operations and the
community



2011 Hong Kong Awards for Environmental Excellence, Sectoral Awards: Public Organisations and Utilities, Gold Award

China's Outstanding Corporate Citizenship 2012 – Towngas China, Hua Yan Water and ECO

11th Hong Kong Occupational Safety & Health Awards:
Safety Culture Award – Gold Award
OSH Annual Report Award – Gold Award
Safety Performance Award



Our Carbon Reduction Campaign helps to reduce more than

26,000 tonnes
of carbon emissions a year

CORPORATE SOCIAL RESPONSIBILITY

Corporate social responsibility and sustainability have always been an intrinsic part of our corporate philosophy. They have been essential in building trust and fostering partnerships with our shareholders and employees, our customers and the community.

Caring for Our Environment

As a leading supplier of energy, our goal is to provide clean and green products and services in every aspect of our business. We are helped by the nature of our product as gas is a cleaner energy than many other energy alternatives. Additionally, natural gas, which accounts for about 55 per cent of our feedstock in Hong Kong, is the cleanest fossil fuel available today. On the mainland, our city-gas projects supply natural gas to customers. Together with our landfill gas, coalbed and coal-mine methane facilities, ECO's clean coal and new energy activities, as well as our active programme to replace diesel with natural gas for trucks and marine vessels, we are actively driving the use of clean energy to new highs.

We also seek to conserve energy, reduce carbon emissions and promote a green lifestyle in our everyday operations. These initiatives include the introduction of waste heat recovery systems in our Tai Po plant which has resulted in a substantial reduction of carbon emissions. Our cool kitchen series, also featuring waste heat recovery technology, has done much to not only reduce energy usage but also to create a cooler environment for our customers and seeking to

reduce carbon emissions even further, we also completed a study on the carbon footprint of a typical gas appliance.

Our highly successful Carbon Reduction Competition on the mainland was in its third year. Under this initiative, a total of 110 entries have been received so far, saving more than 26,000 tonnes of emissions a year.



Under its Month of Tree Plantation and Carbon Reduction Campaign, Towngas China planted around 40,000 trees in a green area of approximately 300,000 square meters.



Our popular rice dumplings and mooncakes for the community events now form a regular part of our social calendar. Members of the Hong Chi Association learnt how to make rice dumplings (left) and Towngas volunteers got together with the elderly to make heart-shaped mooncakes (right).

Within the community, we continue our sponsorships and partnerships with leading Green groups, such as Friends of the Earth (HK)'s tree planting challenge and WWF's "Earth Hour" initiative. The leadership training programme under the "Green Leaders Bloc", organised by the Conservancy Association was also completed, with 17 student "leaders" being trained and equipped to lead and carry out environmental campaigns. Seeking to make a difference and in celebration of our 150th Anniversary, "Towngas China Tree Zone" was formed on the mainland to plant 1,500 trees in Guangzhou, Guangdong province where our earliest joint venture businesses were located.

In Partnership with Our Community

Our multi-faceted community programme is headed by our Towngas Concession Scheme which offers concessionary rates for our services among the elderly, people with disabilities, single-parent as well as low-income families. We also continue our now well-established Rice Dumplings and Mooncakes for the Community initiatives. During the year, we produced 230,000 rice dumplings for distribution during the Dragon Boat festival. This brings the total number of dumplings distributed over the years to well over 1.5 million dumplings. Similarly, we prepared and gave away more than 210,000 mooncakes, bringing the grand total of mooncakes distributed to 1.1 million so far. These activities have also extended

to our businesses in mainland China and similar rice dumpling events are held throughout the country.

Our Volunteer Service Teams donate their time to care for the communities. In Hong Kong, we once again won the championship in the Social Welfare Department's Highest Service Hour Award in the category of Private Organisations – Best Customer Participation, an honour we have now received for five years running. On the mainland, more than 70 per cent of our businesses have set up volunteer teams, serving around 60,000 needy people over the years.

Our "Cook for Love" campaign, which helps single-parent families to improve their communication and interaction skills through group activities and play, received a boost during the year with the winning of

the first runner-up award in the Social Welfare Department's 2011/12 Best Corporate Volunteer Service Project Competition. This achievement was echoed by our "Book Donation with Love and Care Programme" in mainland China, which won a Corporate Social Responsibility Award presented by China Philanthropy Times. Under this programme, over 15,000 books have been collected for donation to school "book corners" in a number of provinces.

Taking the lead on the mainland, we organised a large-scale "Corporate Responsibility Summit" in Beijing, the first of its kind to be hosted by a private gas entity. During the event, we released Hua Yan Water's first Corporate Social Responsibility (CSR) report and

Towngas China's "Guidelines for Preparing the CSR Report".

Investing in Our People

A business is only as good as its people. To this end we make every effort to attract and keep a skilled, motivated and professional workforce, who in helping us to achieve our business goals, will also fulfill their own career objectives. We therefore do our utmost to offer a positive and rewarding work environment that ensures employee well-being while also making the best of their abilities through comprehensive training and development. At the same time, as our businesses grow in scale and scope, our aim is to provide our people with ample opportunities for career advancement.

Growing Our People

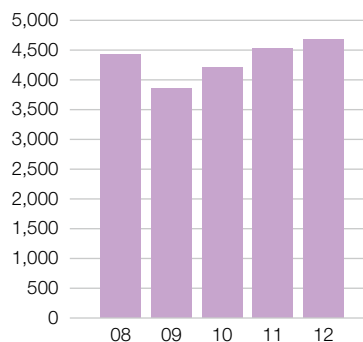
The first step in building a quality workforce is to ensure that our employees have the necessary skills to carry out their jobs both ably and professionally. We thus run a number of trainee and apprenticeship schemes, turning out qualified gas engineers and technicians for the industry. Towngas China has received approval from the Hong Kong Institute of Engineers to train young engineers via a two-year structured engineering programme and together with Institution of Gas Engineers and Managers' tailor-made route for engineers to achieve world-class qualifications, our Towngas Engineering Academy (TEA) is turning out a number of qualified professionals to serve the industry.



During the year we sponsored the "Salvation Army O! Day", one of Hong Kong's largest orienteering competitions to raise funds for the needy.

Revenue per Employee

Company (HK\$ thousand)





Street Art – Our Artistic Pit Cover Designs

A major community initiative held to celebrate our 150th Anniversary was our innovative Artistic Pit Cover campaign, the first of its kind in Hong Kong. We launched Towngas Street Art x Pit Cover Design Contest to bring this brand new form of urban art to Hong Kong people. Eleven artists were also involved in the project, which resulted in the creation of 150 decorative pit covers installed all over Hong Kong.

Promoting this initiative and involving the people of Hong Kong in this novel form of art, we also held a "Go Snap! Pit Cover Photo contest" and an interactive smartphone app, encouraging participants to locate these artistic pit covers and snap a creative photo.



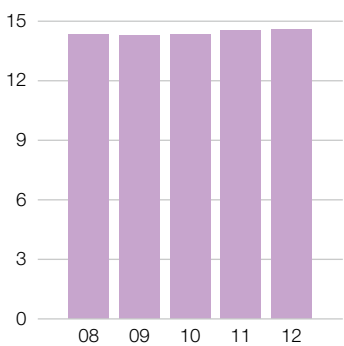
With centres in Hong Kong, Shandong, Sichuan, Changchun and more recently in Shenzhen, which opened in March 2012, TEA also works to promote a continuous learning culture, helping employees to not only improve their qualifications but also to maintain a keen interest in new developments and processes. A prime example of this ongoing and refresher training was the launch of new Superior Quality Service (SQS) models in support of our SQS initiative which celebrated its 20th birthday in 2012. Enhancing our SQS culture, the training provides a systematic and innovative problem solving toolkit that heightens and accelerates creative problem solving skills.

Together with a special campaign on gas safety comprising 111 sessions for over 2,600 employees and contractors, TEA completed a total of 146,489 man-hours of training during the year.

Technical competencies aside, management and leadership development also play a key role in our activities. Not only do they help to develop a pool of talent for our needs, they also foster personal development and career growth for our people. Another key area of focus is the endorsement of our corporate culture – an understanding of our goals and values promotes mutual appreciation, awareness and respect, as well as the better achievement of shared goals.

As part of our corporate Towngas Leadership Competency programme we continue our Executive Development Programmes (EDP) which are held in partnership with various universities and professional institutions. During the year, 17 executives participated in our week-long Tsinghua EDP while 35 participants completed the more recently established Zhongshan University programme in Southern China. Thirty senior group executives also attended a five-day programme at the Chinese Academy of Governance while over 300 financial professionals from more than a 100 mainland businesses attended a finance workshop in Liaoning province.

Town Gas Sales per Employee Company (million MJ)



We set up a “Happy Zone” at our North Point Headquarters, providing our employees with a comfortable place to rest and relax.

Nine new graduate trainees came on board during the year under our Graduate Trainee Scheme, while 17 fresh graduates joined ECO as ECO Management Trainees (EMTs). As part of their training programme, the 18 EMTs recruited in 2011, spent two weeks in Hong Kong familiarising themselves with our operations. Twenty-two candidates identified under Hua Yan Water’s 2011 Elite Talent Development Programme also completed their 12-month accelerated learning programme.

Enhancing the Well-Being of our Employees

Happy people translate into happy customers. We are committed to ensuring the health and well-being of our people, not only with a

positive and pleasant work environment hand-in-hand with a rewarding remuneration package but also with a sense of unity and belonging to our Towngas family.

This sense of belonging received a strong boost during the year as we celebrated our 150th Anniversary. Fully aware that this success would not have been possible without “our people”, a number of events were held throughout the Group to both celebrate this success and to thank our employees for their contribution. This “Thank You” took a physical form in Hong Kong when every employee on board on our actual birthday, 3rd June 2012, received a gold coin in commemoration of their service.

A range of activities also took place under our “Wenxin” warmth and

care initiative. Kicking off in 2011, the programme continued into 2012 with a Wenxin story-writing competition to highlight Wenxin-related stories throughout the Group. A photo competition was also held on the Wenxin theme with the submissions being displayed at our North Point Headquarters.

A number of talks were also held to improve the quality of life for our people – extending the Wenxin culture into employees’ families and personal lives. These included a series of talks on behaviour and body language to improve communication and relationships with family members, and teenagers in particular, while presentations were also held for pre-retirees on how to prepare themselves for this new chapter in their lives.

On a more general note, we also won the Grand Award in the Hong Kong Smoke-free Leading Companies event organised by the Hong Kong Council on Smoking and Health (COSH) for our efforts in promoting a smoke-free culture in the workplace. Driving this positive message forward, representatives from COSH also gave a number of talks on the benefits of not smoking and of living and working in a smoke-free environment.

Towards Better Work Safety

In ensuring the well-being of our employees, safety must be a key commitment. We once again managed to achieve our lowest

accident rate on record – seven cases in total for the year in Hong Kong.

Seeking to drive our safety levels even higher, November 2012 was designated as “Health, Safety and Environmental (HSE) Month” in Hong Kong. The month unfolded with over 2,000 participants taking part in a variety of activities, from quizzes and experience sharing workshops, to fire and work safety, to environmental issues. Similar activities including site safety inspections and an Occupational Safety and Health Contractor Forum were also organised for our contractors. A Behavioural-Based Safety Programme too was implemented at our plant in Tai Po.

In addition to our HSE Policy, which saw the addition of a new section on the “minimisation of climate changes risks”, our quality and safety systems also conform to the internationally accredited ISO9001, ISO14001, OSHAS18001 and PAS55-1 standards. Also making sure that our safety practices and contingency plans work as well in action as in theory we hold various table-top exercises, fire drills and other emergency exercises not only internally but also with the relevant parties externally – Hong Kong Fire Services Department (FSD) and Hong Kong Police Force for example. Two such exercises were conducted in Hong Kong for the Corporate Emergency Management Team during the year.

Environmental Performance Table (Hong Kong)

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.

GREENHOUSE GAS EMISSION

- Greenhouse gas emissions from major gas production equipment was 360,634 metric tonnes in terms of CO₂ equivalent.

CHEMICAL WASTE

- Total chemical waste output was 1.23 kg/TJ of town gas.

AIR QUALITY

- Total NO_x output was 4.20 kg/TJ of town gas.
- Total SO_x output was 0.02 kg/TJ of town gas.
- Total CO₂ output was 11.92 metric tonnes/TJ of town gas.

NOISE

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

WATER QUALITY

- Total wastewater output was 5.74 m³/TJ of town gas.

All legal requirements relating to environmental protection were fully complied with.

Driving a “safety culture” mindset, we continue our hands-on training programmes. The safety and risk management personnel from the mainland visited Hong Kong to see our safety practices and attended a safety and fire-fighting course conducted by the FSD at their training school to enhance their fire safety and risk awareness.

Driving Growth and Building Long Term Value

Established in 1862 to provide lighting for the streets of Hong Kong, Towngas has since grown into the modern, diverse and multi-faceted energy conglomerate that we are today. This success has been built on our vision to be Asia’s leading energy supplier and service provider, with an environmentally-friendly focus, supported by our mission to provide our customers with a safe, reliable supply of energy together with the caring,

competent and efficient service they expect, while also working to preserve, protect and improve our environment.

Responsible corporate behaviour as well as good corporate governance are essential to creating long-term value for our stakeholders such as our customers and the community. Our activities are thus defined by our organisational values, which ensure that they are carried out with due care and respect. Over the years, this strategy has not only helped us to build both trust and partnership with our stakeholders and the community, but it has also helped us to establish an award-winning brand that stands for a solid and healthy financial position, world-class service and product quality, innovation and efficiency as well as uncompromising standards of safety.

Our business drivers which include the transfer of this business model onto the mainland have been particularly successful and the Towngas group currently operates 150 projects in mainland China. This footprint expanded yet again with our recent move into the region with a new project in Thailand. Building on this success, our ongoing business development will focus on Asia’s growth economies with their developing energy markets, increasing industrialisation and rapid urbanisation. Our business portfolio will continue its diversification with energy infrastructure and pipeline projects, city-gas operations, water supply and telecommunications, as well as clean fuel and the development of unconventional fuel alternatives, as we seek to deliver both stable and sustainable growth.

Business Drivers

- Growth
- Value
- Improved Shareholder Return
- Innovation
- Safety and Reliability
- Products and Services
- Operational Excellence
- Corporate Citizenship

Organisation Values

- Accountability
- Creativity
- Leadership
- Open Communication
- Driving Achievement
- Respect and Integrity
- Continuous Learning
- Teamwork
- Entrepreneurial Spirit