



SUSTAINABILITY SUMMARY REPORT 2012



煤氣
Towngas

Greening up your life

Vision

To be Asia's leading energy supplier and service provider, with an environmentally-friendly focus.

Mission

To provide our customers with a safe, reliable supply of energy and the caring, competent and efficient service they expect, while working to preserve, protect and improve our environment.

Driving our Sustainability, We...

- Maintain the highest standards of corporate governance.
- Follow a strict internal Code of Conduct on best practices and ethical behaviour.
- Ensure open, accountable and transparent communications.
- Guarantee efficient, effective and reliable business practices and operational controls.
- Act in the best interests of our stakeholders.
- Fulfill our corporate social responsibilities to our stakeholders, the environment and our community.

Major Awards and Recognitions in 2012

- Financial Times Global 500 Company
- Hang Seng Corporate Sustainability Index Series – Constituent Stock :
Towngas(0003.HK) and Towngas China(1083.HK)
- Hong Kong Green Awards 2012 :
Corporate Green Governance Award – Grand and Corporate Leadership
Green Management Award (Corporate) – Gold Award
- Green China Awards :
Distinguished Innovative Green Concepts Awards
Distinguished Environmental Green Enterprises Awards
- Eco Excellence Award 2012 – Energy Supplier(Natural gas)
- 11th Hong Kong Occupational Safety & Health Award:
Safety Culture Award – Gold
OSH Annual Report Award – Gold
Safety Performance Award



- Social Welfare Department's Highest Service Hour Awards presented by the Social Welfare Department :
Private Organisations – Best Customer Participation, Championship Award
- Community Chest President's Award
- Manpower Developer Award : Employees Retraining Board
- China's Outstanding Corporate Citizenship 2012 –
Towngas China, Hua Yan Water and ECO

Our Health, Safety and Environment Policy

Under our HSE Policy, we pledge to conduct our operations in a manner which poses no risk to the health, well-being and safety of our employees, contractors, customers and the public at large and to make every effort to protect the environment and ensure sustainable development.

We therefore strive to :

- Ensure** health and safety at work, and to minimise HSE and climate change risks
- Achieve** a zero accident rate as well as a high standard of environmental care through continuous improvement
- Eliminate** HSE hazards in our operations, applications and services
- Carry** out necessary HSE assessments for all major projects and to conduct regular HSE audits in our operations
- Promote** HSE awareness and consciousness among employees, contractors and business associates through education and training
- Achieve** full compliance with all relevant legislation
- Use** environmentally-friendly materials and technologies, promote economic recycling of materials and conserve resources.

Promoting a Clean and Green Environment

Green Energy

Natural Gas

Currently the cleanest fossil fuel available, it accounts for about 55% of our feedstock in Hong Kong, it also forms the major supply for our 107 city-gas businesses on the mainland.

New Energy Developments

We are looking for new and more diverse ways to produce clean energy. In addition to carrying out in-house research, our research and development centre also operates in partnership with research and technology institutes both locally and around the world. Focusing actively on the use of waste materials and low-grade fuels to create high-value resources, a number of projects are nearing fruition. A recent example is the upgrading of tar oil, a by-product in the coal carbonisation process, into clean vehicle fuels. This focus on organic and waste materials is fuelling an increasing interest in biomass energy and the many developments taking place in this field.

Clean Vehicular Fuel

Providing cleaner fuel for vehicle, we operate five dedicated liquefied petroleum gas (LPG) filling stations in Hong Kong together with nine compressed natural gas (CNG) and liquefied natural gas (LNG) filling stations in six provinces on the mainland. Extending these facilities, five further filling stations are under construction in mainland China.

Landfill Gas

A pioneer in the field, we began harvesting landfill gas (LFG) for use as a heating fuel in 1999. Usage has since grown with our utilisation project at the North East New Territories (NENT) landfill site, one of the largest examples of this "green" energy recovery and reuse in the world. Now accounting for about 2% of our total production fuel, usage will increase when negotiations with regard to the South Eastern New Territories (SENT) landfill site are completed.

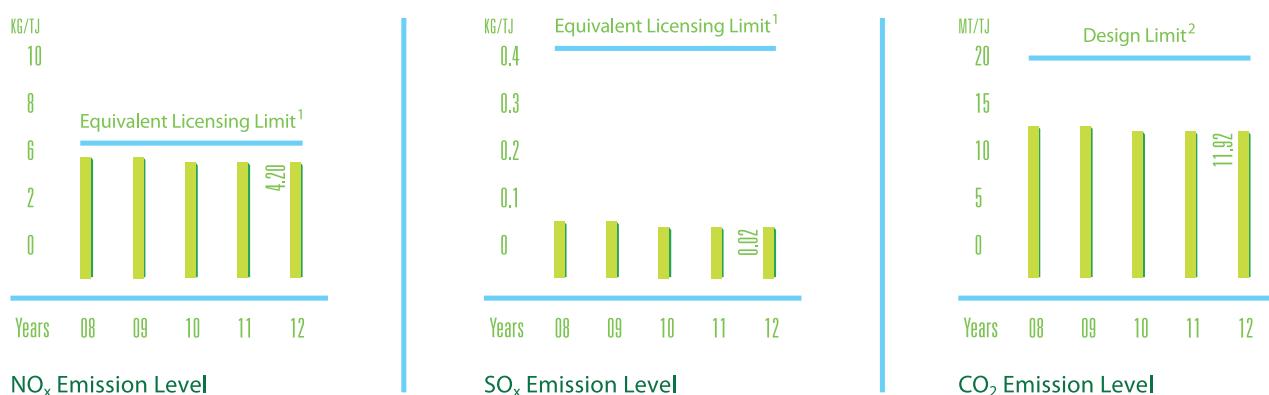
Clean Coal Energy

Our clean coal utilisation techniques took a major step forward in 2011 with the completion of our coal-based methanol plant in Inner Mongolia. Methanol has dual applications as a chemical feed as well as a highly efficient and clean burning fuel.

Coalbed Methane

We constructed and operate China's first large-scale coalbed methane (CBM) liquefaction and utilisation plant in Shanxi province. This use of CBM not only turns a highly polluting waste material into a safe, environmentally-friendly, clean and quality fuel, it also provides a safer working environment for miners. Looking forward, we are exploring further opportunities in this market.

Emission Levels of Gas Production Plants (Hong Kong)



1 "Equivalent Licensing Limit" (kg/TJ OR m³/TJ) = "Weighted average of actual licensing limit" (kg/hr or m³/hr) ÷ production rate of the plants for the year 2012 (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 the emission level.

Reducing Our Carbon Footprint and Conserving Resources

Our Carbon Audit Programme provides a baseline for the calculation of carbon emissions during the gas production process together with carbon inventory accounting procedures.

Carbon Intensity (Hong Kong)

CO₂ emission per unit of town gas



The heat recovery system at our Tai Po plant recovers and uses waste heat generated from our production processes. The energy saved in 2012 reduced carbon emissions by 2,400 tonnes as well as fuel costs of around HK\$6 million.

926 tonnes

Our Used Gas Appliance Recycling Programme collects used gas appliances for recycling. This saved 926 tonnes of used equipment being dumped into landfills in 2012.

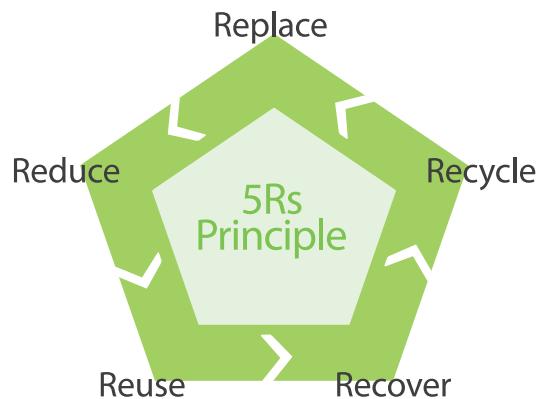
Our Carbon Reduction Project Competition, now in its third year, brought in 25 submissions in 2012, resulting in the saving of a further 3,000 tonnes of carbon emissions a year. A total of 110 submissions have been received under this initiative so far, saving up to 26,000 tonnes of carbon emissions annually.

We completed our study on the carbon footprint of a typical gas appliance during the year showing that customer usage accounts for a large part of its carbon footprint. We are thus pursuing further studies to see how emissions can be further reduced during this phase.

Saving electricity, we have implemented a series of green office measures, replacing conventional lighting with more energy efficient LED and induction lamps in offices, warehouse, lifts and some common areas, for example.

At the end of 2012, we had more than 65,013 registered eBilling customers, saving 9.75 tonnes of paper.

The new reverse osmosis water treatment facility in our Tai Po Plant saves more than 114,000 cubic metres of effluent water a year in comparison to the previous facility.



Minimising Waste

We received our "Class of Excellence" Wastewi\$e Label for the 11th consecutive year.

Major Types of Materials Collected for Recycling or Reuse

• Paper	• Metal Drums	• Spent Catalyst
• Plastic Chemical Drums	• Spent Laser Toner Cartridges	• Computers
• Polystyrene Foam	• Abandoned Service Pipes and Fittings	• Plastic Waste
• Old Gas Meters	• Used Polyethylene Pipes	• Retired Safety Helmets
• Abandoned Aquaknect Hoses	• Used Gas Appliances and Spare Parts	• Used CDs/DVDs
• Retired Uniforms	• Obsolete Rechargeable Batteries	• Spent Fluorescent Tubes

In Partnership with our Stakeholders

Our Employees and Contractors

We encourage our employees and contractors to purchase and use green products and services, conserve natural resources and practice recycling. We also organised eco talks and seminars, suggestion schemes and environmental awards as well as eco tours and tree planting days.

Promoting a green lifestyle, organic vegetables are often offered for sale at our Towngas offices. To extend this initiative, an organic farming promotion event was held for contractors with 30 contractor staff joining a visit to an organic farm in July.



A major highlight during the year was our “Towngas China Tree Zone”, which was formed as part of our 150th Anniversary celebrations to plant 1,500 trees in an area of about 2,000 square metres in Guangzhou, Guangdong province where our earliest joint venture businesses were located.

The Community

Continuing our Low Carbon Action! initiative, we maintain our partnerships with our communities, either organising promotional events that carry the green message to the public or participating in community and other similar activities. We thus sponsor, support and take part in major campaigns, organised and carried out by NGOs and leading green groups.

These include Friends of the Earth (HK), Green Power and WWF's Take a "Brake" Low Carbon Action campaign, WWF's Earth Hour 2012, Friends of the Earth (HK)'s Tree Planting Challenge, Hong Kong Green Sense's No Air-Con Night, the Conservancy Association's Green Leader's Bloc as well as new initiatives such as the Vegetarian Menu offered at Towngas Avenue in partnership with Green Monday.



Our Customers

Providing cleaner choices and a green lifestyle for our customers, we offer a comprehensive range of modern, eco-friendly and energy-efficient appliances. All our domestic gas water heaters, for example, carry energy efficiency labels having received approval from Electrical and Mechanical Services Department to do so. To celebrate our 150th Anniversary, we launched our TGC Perfecto Series, consisting of a Vortex Built-in Hob and Infinity Water Heater, which uses the latest design and technology to provide high heat efficiencies. The Vortex Built-in Hob won the 2012 Hong Kong Awards for Industries – Consumer Product Design while the water heater won a Japan Good Design Award 2012. Our self-developed “Cool Kitchen Four Treasure” series catering to the needs of Chinese restaurants have helped customers to reduce energy usage by up to 30%, while a device recovering flue heat from stockpots is also able to heat water elsewhere in the kitchen.

Promoting a green lifestyle, green corners at our customer centres offer a range of green merchandise such as cookware, health care and beauty products to our customers. We also opened a Towngas Green Kitchen, providing a “green” kitchen where our trade partners can see and try out the benefits of our Towngas commercial appliances and applications for themselves. Our F&B Environment Protection Group also provides professional advice on saving energy, reducing emissions and maximising efficiencies for specific customer needs.

Ensuring Better Health and Safety



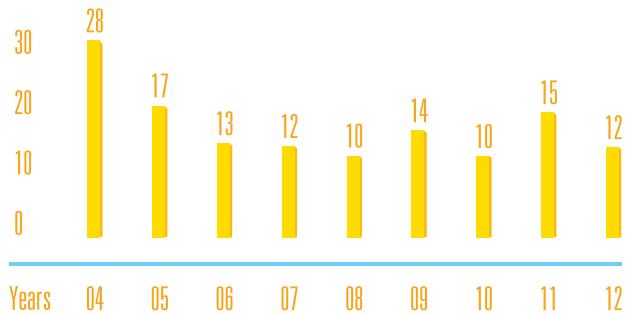
Our Safety and Risk Management System aims to ensure that our operations pose no risk whatsoever to the health, well-being and safety of our employees, contractors, customers and the public-at-large.

Towngas Safety Practices

- Meet all relevant health and safety legislation requirements
- Benchmark against the highest standards of health and safety
- General Manager Monthly Safety Inspection programme
- Safety inspections by Group Managing Director
- Safety teams report directly to General Managers
- Comprehensive safety inspections and safety audits
- Safety training
- Emergency drills and table-top exercises
- Safety promotions and incentives



Number of Third Party Damage Incidents (Hong Kong)



Operational Safety

We carry out a rigorous schedule of inspections for our pipeline network in Hong Kong. In 2012, we completed over 176,688 inspections at 17,599 sites and surveyed over 7,000 km of pipelines. The occurrence of gas leakages have thus showed a steady decline and in 2012, we received the lowest number 54 reports of Public Reported Gas Escapes (PREs) on record.

On the mainland, we extended our "Year of Safe Production" campaign to Jiangsu, Zhejiang and Anhui provinces. This initiative analyses every aspect of a business to identify risk areas and establish Key Performance Indicators. The 2012 safety audit in mainland China achieved a safety score of 85% against the 71% recorded previously in 2009.

Safety systems and processes were also established for many of the new businesses commencing operations in mainland China. ECO also updated its corporate emergency plan to integrate its businesses in Hong Kong, and the mainland into a single master plan.

20%

The number of serious gas-related incidents in mainland China fell 20% in comparison to 2011.

Customer Safety

The backbone of our customer safety activities consists of our regular safety inspections to customer homes, helping to identify problems and prevent the possibility of accidents.



Our diverse range of home appliances contribute significantly to home safety as we offer safe, convenient and energy efficient products with professional installation, warranties and after sales services.

A wide range of publicity materials, promotional items, exhibitions, visits, talks and special community events also help take the safety message into the community.

In 2012, more than 1.1million regular safety inspections were conducted at customers' homes in Hong Kong.

Leakage and Pipeline Surveys

Type of Pipeline	Frequency of Leakage Surveys
All high pressure and intermediate pressure mains	At least once a year
Medium pressure ductile iron pipes or all galvanised iron pipes	At least six times a year
Low pressure ductile iron pipes	At least three times a year
Polyethylene(PE) or steel pipes over or enclosed within structures	At least twice a year
Others	At least once a year

Occupational Health & Safety



International Safe Workplace (ISWP) Indicators

We were the first utility in Hong Kong to receive our designation as an International Safe Workplace (ISWP) under the framework of the World Health Organisation's Safety Community.

We achieved the lowest accident rate in our history - the figure fell from 16 in 2010 to 10 in both 2011 and 2012 with no serious injuries. These positive figures are inching us closer to our goal to achieve a zero accident rate throughout our operations.

Our Social Responsibilities

Caring for Our People

Ensuring the well-being of our employees, we offer a comprehensive package of benefits together with learning and development. Our Sports and Recreation Club also offers a full range of sports, social and recreational events to provide a positive and healthy work-life balance.

Corporate Culture

Making sure our employees understand our business objectives and share in our Vision, Mission, Values (VMV) and goals, corporate culture workshops are held throughout our operations. A corporate video was also produced and a book was complied featuring 12 Towngas stories showing these values at work.

As part of our 150th Anniversary celebrations, our Wenxin programme continued to spread “warmth and care” to our employees to thank them for their services over the years and to gain their greater involvement in our Towngas family. This “Thank You” took a physical shape when every employee working with us in Hong Kong on our actual birthday, received a gold coin in commemoration of their services.

Taking this Wenxin spirit to our retirees, a “Towngas Buddy Club” was formed to arrange regular gatherings and visits. It also involves these “buddies” in our voluntary service programmes into the future.



Training and Development

Responsible for all our Technical Training, Professional Qualification and Superior Quality Service Functions, our Towngas Engineering Academy completed 42,400 hours of training in 2012.

Our Graduate Trainee Scheme programme celebrated its 30th anniversary in 2012. Sixteen graduates joined us in the first intake in 1982 – eight of them are still with us, all in senior management positions. Nine new graduates joined the programme in 2012 and a further 17 graduates also joined ECO’s trainee scheme, which commenced in 2011.

Our Towngas Leadership Competency (TLC) model and TLC+ programs models seek to build a pool of talent for our future management needs. TLC builds personal development platforms that advance core leadership competencies while TLC+ focuses on leadership development backed by the necessary financial, knowledge, communication and management skills.

Our Superior Quality Service (SQS) Scheme, which seeks to improve quality and drive performance throughout our operations, launched a new SQS innovation model during the year, making sure we keep up with modern business practices. In 2012, 719 employees in 99 teams in Hong Kong completed 64 projects saving HK\$28 million. On the mainland, some 6,018 team members completed 524 projects with cost savings of over RMB 53.82 million.

Reaching Out to Our Communities

Initially focused on lending a helping hand to the elderly, our programmes have expanded over the years to cover under-privileged groups such as the financially-disadvantaged, new immigrant families and people with disabilities.

In Hong Kong, the number of volunteer service hours increased from 64,956 hours in 2011 to 68,508 hours in 2012.



Our "Cook For Love" programme won the Social Welfare Department's Outstanding Project First Runner-up award in their 2011-12 Best Corporate Volunteer Service Project Competition. Under this initiative, "Family Volunteer Teams" work with beneficiary families, taking part in cooking lessons and other activities to create happier homes.

CookEasy, our first social enterprise created in partnership with the Tung Wah Group of Hospitals, won Next Magazine's CSE Social Service Award in 2010 as well as the Home Affairs Bureau's "Outstanding Friends of Social Enterprise" award in 2011. Creating employment opportunities for people with disabilities, CookEasy provides a pre-prepared food pack service based on a healthy-diet.

In 2012, we sponsored The Salvation Army O! Day, joining hands with the organisation to raise funds for community service activities for the disadvantaged in Hong Kong.



70% 

On the mainland, over 70% of our mainland businesses have established volunteer teams.

At the end of 2012, they have accumulated a total of 500,000 service hours, benefiting around 700,000 people.



Street Art - Our Artistic Pit Cover Designs

We introduced a new form of street art with our Artistic Pit Cover Competition. Launched as part of our 150th Anniversary celebrations, the winning designs as well as the work of eleven local artists were transferred onto 150 decorative pit covers which were then installed throughout the streets of Hong Kong.

Our Community Service Achievements in 2012 (Hong Kong)

83 

Number of corporate support programmes through active participation, donation or in-kind sponsorship

1,079 

Number of employees participating in the Company's voluntary services

138 

Number of Towngas Customer Volunteer Team members

294 

Number of voluntary activities in which Towngas volunteers participated

68,508 

Number of voluntary service hours (including employees and customers)

492,539 

Number of people benefiting from our volunteer services

230,030 

Number of rice dumplings made

210,000 

Number of mooncakes made

41,310 

Number of soup servings distributed

475 

Number of children attending "Cooking for Fun" English classes

47,088 

Number of households benefiting from all Towngas Concession Schemes

Review of 2012 Targets

2012 Targets

Results

Safety

To establish a behavior based safety programme.

A behavior based safety programme was established and implemented by the Gas Production Department in 2012.

To establish a pointing and calling programme.

The planning and set up for a pointing and calling programme was completed in 2012 and will be implemented by the Gas Production Department in 2013.

To establish a Towngas Health, Safety, Environment and Caring programme.

The planning and set up for a Towngas Health, Safety, Environment and Caring programme was completed in 2012 and will be implemented in 2013.

To implement a general manager monthly safety inspection programme in ECO's mainland CNG/LNG filling stations.

Six ECO mainland CNG/LNG filling stations commenced their General Manager Monthly Safety Inspection Programmes in January 2012.

To implement a safety audit system in ECO's coal mines.

ECO's coal mines conducted their own monthly safety audits while CHSED conducted regular safety inspections in the working areas of these mines.

To enhance safety awareness and our safety culture through the organisation of workshops and competitions in our city-gas and water ventures.

Two HSE workshops were organised in April and July 2012. More than 400 personnel participated in these workshops.

The Environment

To calculate the carbon footprint for a typical gas appliance product.

A typical domestic Gas Cooker was selected for this carbon footprint study. The results showed that a large portion of the carbon footprint arises from product usage. To help reduce carbon emissions during the usage phase, gas saving practices by customers is being investigated.

To reduce the town gas consumption of water heaters in our Tai Po plant by using from the phase-two carbonate reboilers.

Installation is in progress with commissioning expected in the third quarter of 2013.

To achieve a Wastewi\$e label for the 11th consecutive cycle.

We obtained our 11th consecutive Wastewi\$e Label, demonstrating our high commitment to environmental protection.

To save electricity by introducing a solar power supply source to the LED display board at our Tai Po production plant.

The solar panel and a wind generator will be installed to provide green power supplies to the LED display board at our Tai Po production plant in 2013.

To complete modification work at the Ma Tau Kok production plant and associated pipeline construction projects to enable the partial replacement of feedstock with natural gas.

The design and hazard studies have been completed and modification work is expected to be completed by the end of 2013.

To organise a carbon reduction competition among our mainland companies.

Our 2012 Carbon Reduction Project Competition on the mainland brought in 25 submissions, reducing carbon emissions by 3,000 tonnes a year.

To continue to conduct environmental audits in our city-gas and water ventures.

Environmental audits in our city-gas and water ventures were, and continue to be, conducted in 2012.

Employees

To re-launch a revamped Performance Management System for managers and general staff.

The Performance Management System for all managers and general staff was successfully re-launched in April 2012. More than 50 communication sessions were conducted and over 230 supervisors attended a workshop to acquire techniques in conducting performance appraisals and providing feedback to subordinates.

To re-launch our Vision, Mission and Values to deepen employee understanding so that they can better embrace and embody these values.

A new corporate video on the Company's Vision, Mission and Values was produced to illustrate our values in actions.

To increase the number of channels and platforms for effective internal communications.

To foster open communications, two lunch gatherings with Executive Committee members were organised for employees enabling them to address questions to the Company's senior executives directly. Suggestion boxes were also placed in our offices and facilities to collect employee feedback.

To beef up the content and functionality of our corporate portal for knowledge management and interactive communication.

Highlighting our 150th anniversary celebratory activities, a special webpage was created on our corporate portal for communication and promotion purposes.

The Community

To continue with our family based 18-month "Cook for Love" voluntary programme with different activities including cooking classes, adventure games and team-building workshops.

Under the programme, 10 activities were held for 15 families. It also won the first runner-up award in the 2011-12 Best Corporate Volunteer Service Project.

To distribute an accumulated total of 1,500,000 rice dumplings, 1,080,000 mooncakes and 255,000 of servings of hot soup by the end of 2012.

At the end of 2012, an accumulated record of 1,605,030 rice dumplings, 1,110,930 mooncakes and 272,378 servings hot soup had been distributed.

Future Targets and Initiatives

2013 Targets

Medium Term Targets (Two to Three Years)

Safety

To organise and hold an HSE Day to promote safety awareness and foster a safety culture among our colleagues and contractors.

To implement a Towngas Health, Safety, Environment and Caring programme as well as an online HSE integrated self e-learning and evaluation platform to improve overall safety performances.

To implement a pointing and calling programme.

To implement a safety audit scoring system for ECO's CNG/LNG filling stations on the mainland.

To review a set of 60 corporate safety procedures and/or guidelines to be implemented in ECO's mainland businesses.

To include the report of near-miss incidents in ECO's mainland businesses in the quarterly HSE statistic reports.

To establish a contractor safety management enhancement programme to improve the safety performance of contractors.

To further promote safety awareness and a safety culture in ECO's mainland operations through education, training and experience-sharing visits.

To achieve the certification of all managerial staff in our mainland ventures Risk Management Department as Certified Safety Engineers.

The Environment

To achieve a Wastewi\$e label for a 12th consecutive cycle.

To study the utilisation of other landfill gases and biogas and save fossil fuels with this "green" energy recovery and reuse.

To reduce electricity consumption with the replacement of the existing chiller plant in our North Point building to more energy efficient systems.

To carry out a food waste reduction-at-source promotion campaign.

To promote office energy savings by implementing an after-work office PC shutdown scheme.

To continue to explore new carbon management initiatives.

To complete modification work at the Ma Tau Kok production plant to enable the production of town gas from natural gas as the feedstock and fuel.

To renew the green building certification with BEAM Plus requirement for our North Point headquarters building.

To design and commission a rainwater collection system at the naphtha tank farm.

To carry out gas saving promotions among our customers.

To further improve the energy efficiency of commercial gas appliances with the development of a high-efficiency stockpot.

To organise a promotion activity to encourage customers to register for eBilling service.

To organise a carbon reduction competition among our mainland companies.

Employees

To institutionalise Talent Review mechanisms in our different businesses to facilitate talent development and succession planning processes for future business growth.

To establish the talent pool for each business locomotive and facilitate talent exchange across locations, business segments and job functions to support the Company's long-term growth and manpower needs.

To prepare manpower plans to ensure the ongoing supply of a sufficient workforce to support our daily operations and business growth and to also maintain high standards of safety and quality.

To continue to promote the Company's Vision, Mission and Values, and to engage the workforce at all levels by fostering a harmonious working environment.

To enhance the functionality of the Human Resources Information System for better data management and streamlining of work processes.

To review our Corporate Code of Conduct and organise refresher workshops for all employees.

To promote employee wellness by launching health campaigns and programmes.

The Community

To distribute an accumulated total of 1,800,000 rice dumplings, 1,300,000 mooncakes and 295,000 servings of hot soup by the end of 2013.

To distribute an accumulated total of 2,200,000 rice dumplings, 1,600,000 mooncakes and 350,000 servings of hot soup by the end of 2015.

To organise and implement "Cook for Green" programme to promote green living with the donation of the harvest to the under-privileged groups.

Key Statistics

	Units	2012	2011	2010	2009	2008
Business						
<i>Operations (Company)</i>						
Customers as at 31 December	Number	1,776,360	1,750,553	1,724,316	1,698,723	1,672,084
Customers per km of mains	Number	545	538	535	531	526
Employees as at 31 December (Hong Kong gas business only)	Number	1,943	1,938	1,923	1,908	1,922
Average turnover of workforce (Hong Kong gas business only)	%	4.6	4.6	4.5	3.3	5.6
Average turnover of workforce (all Hong Kong staff)	%	5.5	6.0	5.5	5.4	7.72
Installed capacity (Hong Kong towngas production)	Thousand cubic metres per day	12,260	12,260	12,260	12,260	12,260
Town gas sales (Hong Kong)	Million MJ	28,360	28,147	27,578	27,274	27,583
Financial						
Revenue	HK\$ million	24,923	22,427	19,375	12,352	12,352
Manpower costs	HK\$ million	1,997	1,700	1,467	1,120	1,006
Taxation	HK\$ million	1,485	1,344	1,038	750.6	546.3
Dividends	HK\$ million	3,041.7	4,147.8	2,513.8	2,285.3	2,333.0
Safety and Social						
<i>Safety (Hong Kong)</i>						
Urgent reports – total	Number	15,403	17,192	16,077	16,947	18,239
General incidents	Number	15,084	16,799	15,736	16,567	17,745
Gas related incidents	Number	319	393	341	380	494
Major gas emergencies (including suicide cases)	Number	6	6	4	10	6
Incidents involving third party damage to underground pipes	Number	12	15	10	14	10
Average response time for major gas incidents	Minutes	18.34	19.28	19.22	20.1	19.9
Trench inspections	Number	17,599	16,533	18,400	17,496	15,541
Regular safety inspections – home visits	Number	1,114,409	1,177,367	1,110,744	1,177,170	1,229,128
Community safety exhibitions	Number	12	13	12	12	12
Community safety talks	Number	6	5	6	11	2
In-house safety training	Number of man-hours	20,254	14,047	19,075	18,031	21,597
External staff safety training	Number of man-hours	6,720	7,071	8,002	7,626	5,580

	Units	2012	2011	2010	2009	2008
Occupational Health and Safety						
Accidents – all industrial injuries ¹	Number	10	10	16	14	12
(Accident Frequency Rate ¹⁾	(Number of accidents per 100,000 man-hours)	0.19	0.19	0.31	0.27	0.24
Reportable accidents ^{1,2}	Number	7	9	14	9	10
(Accident Incidence Rate ^{1,2)}	(Number of reportable accidents per 1,000 employees)	2.5	2.9	5.7	3.7	4.1
Traffic Accident Injury Rate ³	Number of traffic accident injuries per 100 vehicles	3.74	3.11	3.71	3.05	4.44
Industrial injury man-days lost	Number of man-days	111	160	430	412	308
Fatal accidents • Hong Kong employees	Number	0	0	0	0	0
Fatal accidents • HCIL, TCCL and JV employees	Number	0	0	0	0	0
Customer Service (Hong Kong)						
Customer compliments	Number	6,090	5,658	5,532	5,554	4,100
Customer complaints	Number	7	10	9	17	16
Community Involvement (Hong Kong)						
Employees participating in voluntary services	Number	1,079	1,215	1,112	1,230	1,040
Members of Towngas Customer Volunteer Team	Number	138	138	138	133	133
Voluntary service hours (including employees and customers)	Number of hours	68,508	64,956	48,815	44,939	38,852
Environmental						
Resource Use / Conservation (Hong Kong)						
Naphtha saved [#]	Metric tonnes	13,355	13,996	13,657	11,234	9,960
Town gas saved [#]	Cubic metres	3,404,587	3,528,364	4,089,133	3,626,266	3,849,776
Water saved [#] (Gas Production)	Cubic metres	218,887	177,463	224,358	213,971	220,363
Photovoltaic (PV) panels installed	Square metres	75	75	75	75	75
Grid electricity saved through PV panels	kWh	86,500	86,600	86,600	86,900	86,600
Electricity saved [#] (North Point headquarters and Ma Tau Kok office)	kWh	4,254,325	4,234,225	4,142,825	3,993,105	3,763,818
CO ₂ emissions avoided equivalent to electricity saved* (North Point headquarters and Ma Tau Kok office)	Metric tonnes	2,981	2,963	2,900	2,795	2,635

	Units	2012	2011	2010	2009	2008
Landfill gas utilisation as heating fuel in gas production	Cubic metres from Shuen Wan	2,362,000	2,364,000	2,761,000	2,361,000	2,528,000
Landfill gas utilisation as heating fuel in gas production	Cubic metres from NENT SNG	20,129,181	20,789,390	19,925,269	16,065,375	14,381,262
Air Emissions (Hong Kong)						
CO ₂	Daily average in metric tonnes (Metric tonnes per million MJ of town gas)	904 (11.92)	913 (11.91)	896 (11.96)	896 (12.13)	929 (12.35)
NO _x	Daily average in kg (Kg per million MJ of town gas)	318 (4.20)	356 (4.65)	344 (4.59)	324 (4.39)	342 (4.55)
SO _x	Daily average in kg (Kg per million MJ of town gas)	1.5 (0.02)	1.5 (0.02)	1.9 (0.03)	2.5 (0.03)	3.6 (0.048)
Greenhouse gases ⁴ (Production equipment)	Metric tonnes in terms of CO ₂ equivalent	360,634	362,307	355,958	357,043	370,647
Aqueous Emissions (Hong Kong)						
Wastewater	Daily average in cubic metres (Cubic metres per million MJ of town gas)	435 (5.74)	447 (5.84)	351 (4.68)	404 (5.47)	493 (6.55)
Waste Avoidance / Recycling (Hong Kong)						
Chemical waste generated	Daily average in kg (Kg per million MJ of town gas)	93 (1.23)	51 (0.67)	178 (2.37)	64 (0.87)	185 (2.45)
Spent catalyst collected for metal recovery	Metric tonnes	35.3	41.1	36	12	114
Metal chemical drums reused	Number	318	216	161	211	201
Plastic chemical drums reused	Number	969	1,064	818	882	878
Spent lube oil recycled	Metric tonnes	25.3	16.1	15.17	3.41	5.85
Scrap metal recycled - Old gas appliances	Metric tonnes	926	840	989	930	891
Scrap metal recycled - From construction and maintenance of plant and pipelines	Metric tonnes	35	11	47	125	116
PE pipe recycled	Metric tonnes	10.7	27.0	11.66	10.9	10.5
Abandoned aquaknect hoses	Number	10,768	9,084	17,221	23,024	26,012
Abandoned service pipes and fittings	Kg	1,174	2,206	3,509	10,715	6,434
Gas appliances polyfoam packaging materials avoided	Metric tonnes	1.52	2.19	4.33	4.12	5.04

Units	2012	2011	2010	2009	2008
<i>Awareness Raising and Training (Hong Kong)</i>					
In-house environmental training (Hong Kong)	Number of man-hours	1,951	549	4,008	3,036
External environmental training (Hong Kong)	Number of man-hours	1,120.3	255	773	403
Environmental training for JVs	Number of attendants	262	213	135	168
					48

Remarks:

- 1 Contractor employees are excluded.
- 2 Employees of subsidiaries are excluded.
- 3 Only Towngas employees in Hong Kong are included.
- 4 Emissions were revised due to a change in calculation method according to EMSD/EPD accounting guidelines. Recalculated values may be slightly different from figures provided in previous company publications.

These figures are the savings achieved compared with the data of a reference year before implementing the respective environmental initiative.

* The default value to account for the GHG Emission Factor of electricity sold to customers in Hong Kong is 0.7kg/kwh. Reference: Guidelines to Account for and Report on Greenhouse Gas Emissions and Removals for Buildings of Commercial, Residential or Institutional Purposes in Hong Kong (by EPD & EMSD).

Your Feedback

This publication provides a quick snapshot of our key sustainability activities in 2012. If you would like any further information, our full Towngas Sustainability Report 2012 is available online at www.towngas.com.

If you have any questions or feedback,
we would very much like to hear from you.
Please contact us at :

Corporate Health, Safety and Environment Department
The Hong Kong and China Gas Company Limited
21st Floor, 363 Java Road, North Point, Hong Kong

Fax: (852) 2590 6344

Email: ccd@towngas.com

