

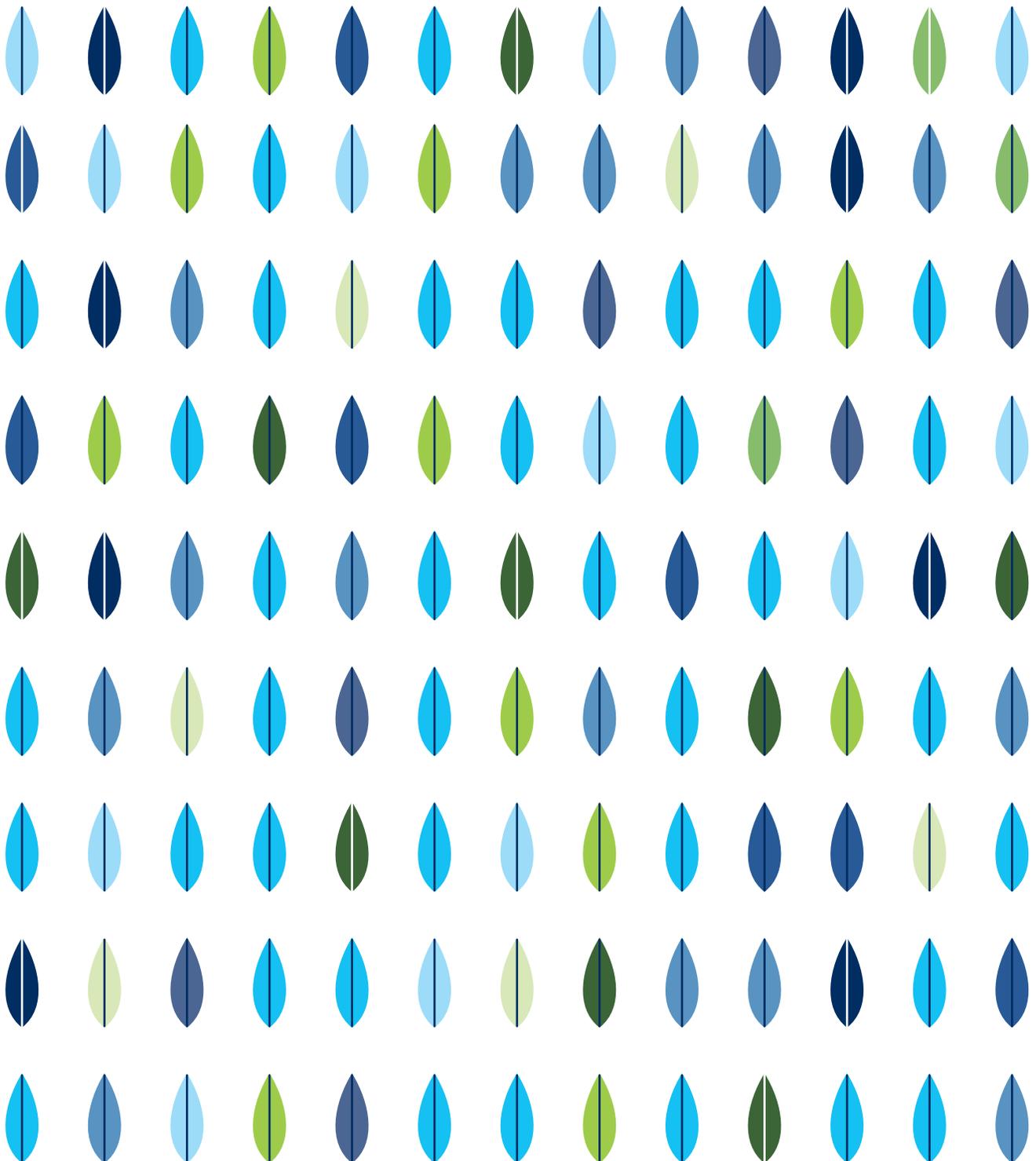


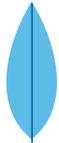
Greening up your life

# SUSTAINABILITY SUMMARY REPORT

## 2015

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# IN ACHIEVING SUSTAINABILITY, WE...

- Maintain the highest standards of corporate governance.
- Follow strict internal Codes 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.
- Fulfil our corporate social responsibilities to our stakeholders, the environment and our community.
- Take the lead in our industry on all of these imperatives.
- Recognise the importance of our employees and our responsibility to keep them safe, engaged and equipped to undertake our mission.

## MAJOR CORPORATE AWARDS AND RECOGNITION IN 2015

### Constituent Company of the Hang Seng Corporate Sustainability Index Series

by Hang Seng Indexes Company Limited

### The Outstanding Listed Company Award

by The Hong Kong Institute of Financial Analysts and Professional Commentators Limited

### Hong Kong Service Awards – Public Utilities

by East Week

### Safety Management System Award (Other Industries) – Gold Award

by the Occupational Safety & Health Council

### Occupational Safety and Health Annual Report Award – Silver Award

by the Occupational Safety & Health Council

### Champion of Highest Service Hour Award 2014 (Private Organisations – Best Customers Participation)

by the Social Welfare Department

### Merit of Highest Service Hour Award 2014 (Private Organisations – Category 1)

by the Social Welfare Department

### China Corporate Social Responsibility Brand Award – Most Influential Corporation

by the Corporate Citizenship Committee of the China Association of Social Workers, CCTV Business News Channel, and the Tencent Charity Foundation

### Corporate and Employee Contribution Programme – Platinum Award

by Community Chest

### Caring Company – Outstanding Partnership Project Award 2014/15

by The Hong Kong Council of Social Service

### Metro Awards for Eco-Business 2015 – Eco Gas Supplier

by Metro Daily and City Spirit

### U Green Awards – Public Utilities (Excellence)

by U Magazine

### Green China 2015 Environmental Achievement Award – Distinguished Enterprises

by Wen Wei Po

### Sustainable Business Award

by World Green Organisation

# 1 ENVIRONMENTAL PERFORMANCE

Facing challenges associated with climate change and environmental degradation, we are in a relentless search for cleaner fuel options to reduce our environmental footprint at source, as well as ways to optimise our operations. Leveraging our network, we also collaborate and partner with different stakeholders to bring positive impact to the environment at large.



## CLEAN ENERGY DEVELOPMENT

### Natural Gas

Since 2006, Towngas has used natural gas as an alternative feedstock as it is abundant and generates low emissions. In 2015, we modified our Ma Tau Kok plant to use 100% natural gas in gas production, replacing naphtha. In mainland China, the government has pledged to reduce China's carbon emissions. We further expanded our piped city gas business to provide a cleaner fuel option, assisting China with its clean energy policies.

### Turning Waste into Energy

#### Landfill Gas

Landfill gas generated at landfill sites in Hong Kong used to be flared off, making it a source of GHG emissions. However, if properly utilised, it can become a useful energy resource.

#### Utilisation of Landfill Gas

1999

- Began harnessing landfill gas from the Shuen Wan landfill site.

2007

- Treated gas from North East New Territories landfill site is transmitted to Tai Po plant as heating fuel.

### Coke Oven Gas

On the mainland, we continue to invest in converting industrial waste into valuable fuel. To this end, a plant in Xuzhou, Jiangsu province capable of converting coke oven gas into LNG through a two-step process is currently under construction. Trial operation is expected in the second quarter of 2016.

### Agricultural Waste

We developed a new technology that converts agricultural and forestry waste into natural gas on the mainland. At the same time, levulinic acid, produced through hydrolysis, can be used as a raw material for producing clean fuel additives.

### Alternative Energy Sources

#### Coalbed Methane

Our liquefied coalbed methane (LCBM) plant in Shanxi province has a designed production capacity of 250 million cubic metres per year. Extracting CBM before mining means that this by-product can be harnessed as a renewable energy source instead of being flared off and producing smog.

2015

- The construction of South East New Territories Landfill Gas Utilisation project was underway with a commencement target of Q3 2016.

### Clean Coal Energy

Enhancement works have been completed at our coal-based methanol plant in the Inner Mongolia, bringing its output capacity to 300,000 tonnes per annum. Methanol is a clean fuel and a chemical feed that generates extremely low emissions during combustion, which can help address pollution problems.

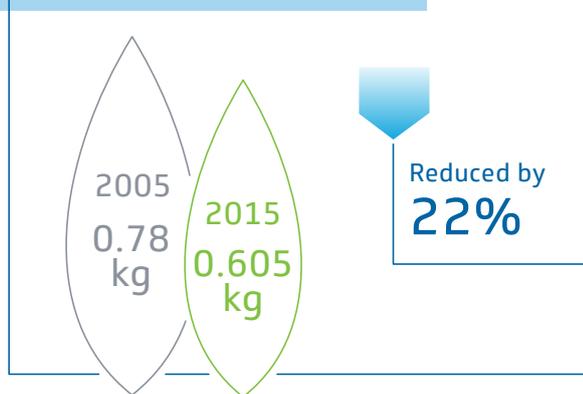
### Clean Vehicular Fuel

Increasing the use of LPG can indirectly improve Hong Kong's local air quality. In 2015, our five LPG refilling stations collectively sold approximately 65,000 tonnes of LPG, serving over 18,000 LPG taxis and minibuses. This accounted for about 30% of the market share of Hong Kong's auto LPG market.

We also run a network of natural gas refilling stations for heavy-duty trucks and marine vessels in mainland China to reduce the use of diesel and help mitigate air pollution.

## CLEAN PRODUCTION IN HONG KONG

### Carbon Intensity (Hong Kong)



Towngas operates two gas production facilities in Hong Kong which consume energy and water resources and also generate GHG emissions. As a result, Towngas is continually exploring the impact associated with these operations, and searching for opportunities to alleviate this impact.

### Reducing Carbon Emissions

Heat recovery system installed at Tai Po plant



**2,500 tonnes reduction**  
in carbon emissions in 2015 =  
HK\$3 million in fuel savings



### Water Conservation

Reverse osmosis facility installed at Tai Po plant

**112,159 m<sup>3</sup>**  
water treated and saved in 2015

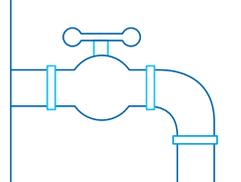


Rainwater harvesting system at Tai Po plant

**3,663 m<sup>3</sup>**  
water collected in 2015

### Wastewater Discharge at Tai Po Plant

Cubic Metres per Million MJ of Town Gas



**5.84 m<sup>3</sup>**

2011

**3.77 m<sup>3</sup>**

2015

## GREEN OFFICE

### BEAM Plus Final Platinum Rating

Our headquarters has attained the final Platinum rating under the Building Environmental Assessment Method (BEAM) Plus Existing Buildings V1.2 certification and is the first non-residential building in Hong Kong to receive this honour.



### Saving Electricity

Towngas headquarters electricity consumption in 2015



### Waste Management

Towngas collects and sorts over 18 types of materials for recycling or reuse, receiving the Silver Award from the Yan Oi Tong Plastic Recycling Partnership Scheme 2014/15. In 2015, a waste audit was conducted at Towngas headquarters. The findings from this audit will be used to further increase the Company's recycling rate.

## GREEN PARTNERSHIPS 2015

In 2015, Towngas continued to develop partnerships with green groups in Hong Kong.

- Green Power  
**My 4 Steps to Low Carbon Living**
- Conservancy Association  
**Green Leaders Bloc**
- 
- Green Sense  
**No Air-Con Night**
- Greeners Action  
**Lai See Packet Reuse and Recycle Programme**
- Green Council  
**Hong Kong Green Day**
- WWF  
**Earth Hour**
- Friends of the Earth (HK)  
**Cherish Food Reward Scheme**
- Greeners Action  
**Leftover Cooking Contest**
- Food Grace  
**Eat Wise Stay Healthy – Food Grace Mid-Autumn Festival Activity**

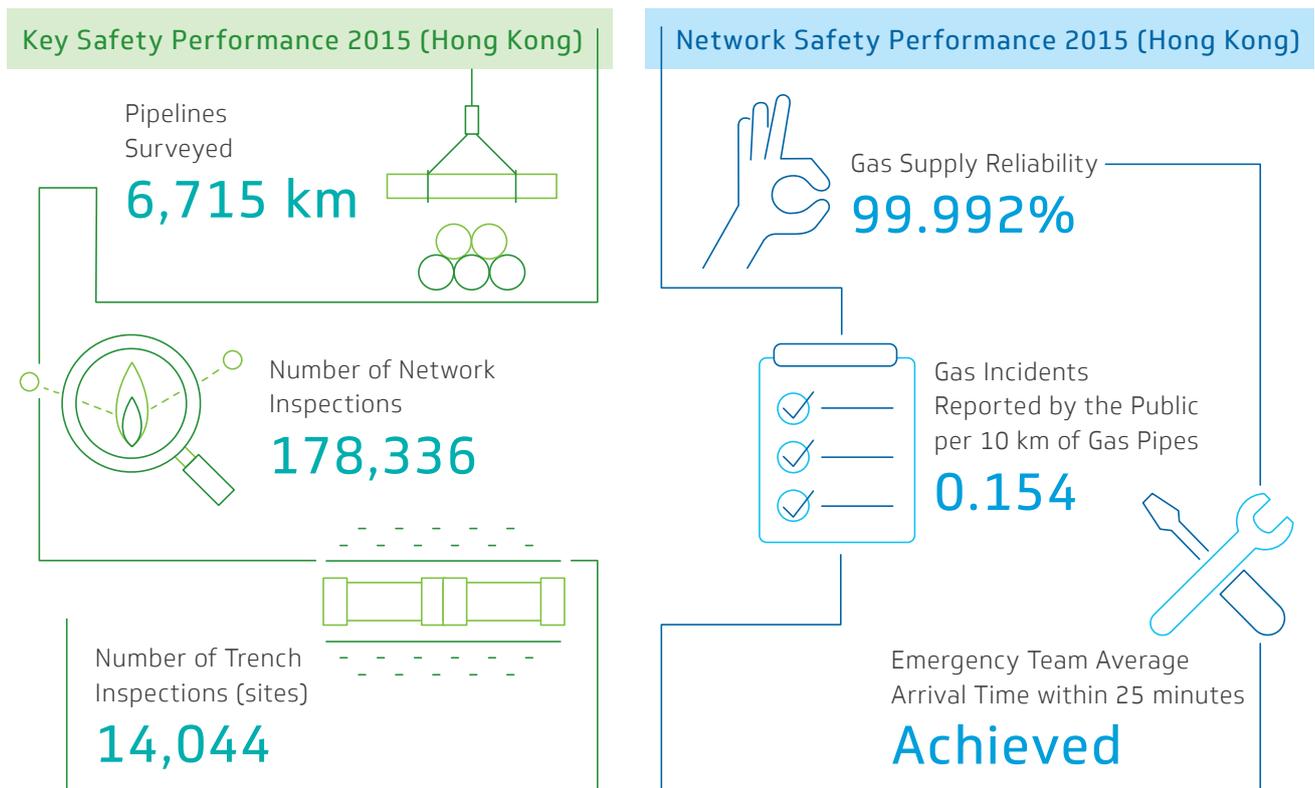
# 2 SAFETY PERFORMANCE

In our pursuit of excellence in safety performance, we have a Health and Safety system in place to systematically control all safety risks. During 2015, we introduced the concept of Total Safety Management and witnessed several improvements in our overall safety operations. Moreover, our activities satisfied all relevant health and safety legislative requirements and were not subject to any warnings from regulatory authorities.



## INFRASTRUCTURE RELIABILITY

With a pipeline network of over 3,500 km, Towngas pays particular attention to our trench inspection measures and leakage surveys, while regularly upgrading any ageing pipes.



### Asset Management

In 2015 we upgraded our asset management system to ISO 55001 standards, in line with the latest international trends. We undertook a Process Hazard Analysis to examine incidents and critical controls, allowing us to manage the risks associated with large-scale projects or modification works.

### Developing New Technologies

To minimize risks at work, our self-developed Laparobots inspect, detect and rectify any abnormalities inside our underground pipes in Hong Kong, reducing the need for large-scale excavation in our maintenance and replacement works.

## CUSTOMER SAFETY

Towngas provides safe and convenient appliances coupled with comprehensive after-sales services. From installation to maintenance, warranties to inspections, we strive to respond promptly to our customers' needs. In addition to meeting all required safety standards, our products incorporate modern safety features such as electronic ignition and flame failure devices.



## OCCUPATIONAL HEALTH AND SAFETY

Towngas strives to develop and operate facilities in ways that minimise workplace hazards. Since 2005, our approach to managing safety and operational risks in the workplace has been built primarily on a safety management system under the OHSAS 18001 standard.

	2015	2014	2013	2012	2011
Number of Reportable Accidents	15	12	12	7	9
Accident Frequency Rate	0.29	0.22	0.24	0.19	0.19



### Occupational Safety and Health Performance

In recognition of our efforts to improve our occupational safety and health performance over the years, in 2015 we received the Gold Award under Safety Management System Award – Other Industries category from Hong Kong's Occupational Safety and Health Council.



### HSE Activities in 2015

#### HSE Day

HSE competition, games and exhibitions for employees, contractors, and their families

#### Occupational Health Campaign

a series of workshops and seminars for employees



# 3 SOCIAL PERFORMANCE

We consider social responsibility indispensable to our business. In this regard, we demonstrate strong corporate citizenship by ensuring the well-being and development of staff, pursuing a high standard of product responsibility and reaching out to the needy with a helping hand to build a better society.



## OUR PEOPLE

Throughout the Group's many years of operation, our people have supported our healthy development. We value our people, and continue to take steps to attract and retain professional talent to enable sustainable growth.

### Total Quality Management (TQM)

The TQM programme was launched in mainland China in 2015 to further enhance safety standards, quality of work and services. In addition to producing promotional posters and videos, competitions were organised to encourage employee participation.

### Training and Education

#### Towngas Engineering Academy (TEA)

In 2009, we established the Towngas Engineering Academy (TEA) to provide structured, professional and technical training to our staff. Since then, the scope of training has been extended to mainland China, allowing us to meet applicable international accreditation requirements.

#### Training Hours

Technical training hours by TEA (Hong Kong and China)

**200,011**

Non-technical training hours (Hong Kong)

**9,213**



### Graduate Trainees (GTs) Programme

Towngas first inaugurated the GTs Programme in Hong Kong in 1982. Since then, this programme has become an important platform for attracting young talent to join Towngas.

#### New graduates

**20**

recruited from Hong Kong and overseas in 2015



**13**

hired in mainland China in 2015



### Executive Development Programme

In 2015, Towngas continued our partnership with Tsinghua University for the eighth year, delivering our Executive Development Programme for senior executives from different business sectors. By the end of 2015, 38 senior executives had completed the programme.

### Mobility Programme

With more employees from Hong Kong taking up new projects and initiatives in mainland China, our Mobility Programme has seen an increasing number of participants since late 2014. In 2015, more than 20 employees joined the programme.

## Work-Life Balance

### The Fun Living Series

In 2015, Towngas continued the Fun Living Series for a third consecutive year. With a number of activities designed to foster positive thinking and attitudes, it engaged over 500 participants in 2015.

#### Fun Living activities in Hong Kong

- **Health Day** a one-day event for employees
- **Seminars** on the topics of parenting, happy marriage and taking care of the elderly
- **Garden Therapy** lunchtime workshop
- **Towngas SRC Cup Distance Run Competition**
- **Towngas Rinnai Bowling Day**
- **MTR Hong Kong Race Walking**
- **Tai Po District Dragon Boat Race**
- **Standard Chartered Marathon**

#### Fun Living activities in mainland China

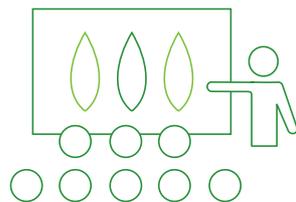
- **My Low Carbon Environment** activities
- **My Healthy Life** activities
- **My Happy Life** activities
- **Employee Assistance Programme**

## CUSTOMER SERVICE

As stipulated in our mission, our professional team is committed to providing customers with caring, competent and efficient services that meet or even exceed their expectations. We launched Service Pledge in 1994 and set a number of service targets. Monthly surveys are conducted to gauge customer satisfaction level for continued service improvement.



“Three Courtesies” concept was included in our mainland TQM programme to further nurture a caring and efficient service culture among employees.



**74 training sessions** conducted for over 1,300 employees since 2013



**6,766 customer compliments** in 2015

## COMMUNITY SERVICES

In 2015, we reviewed our approach to sponsorship and charitable donations, focusing our resources in areas that reflect the top five attributes of our business, namely Community, Quality, Safety, Service and Environmental Protection.



### Tariff Concession Schemes

To help the disadvantaged, we launched four Towngas Concession Schemes for the following groups: the elderly, people with disabilities, single-parent families and low income families.



#### Warmth and Care Fresh Food Aid Programme

- 150 disadvantaged families received fresh food twice every week in 2015
- 46,800 fresh food packs distributed since the launch in 2013

#### Gas Appliances for the Community Programme

- Towngas targeted at delivering 10,000 cooking appliances to disadvantaged families and elderly people in 2015

#### Toilet Washlets for the Elderly Programme

- Over HK\$310,000 was raised in 2015

#### Rice Dumplings for the Community Campaign

- 330,000 rice dumplings distributed in 2015

#### Mooncakes for the Community Campaign

- 100,000 mooncakes distributed in 2015
- 1.72 million mooncakes distributed since 2001

#### CookEasy Partnership Programme

- A social enterprise employing people with disabilities to provide a food pack delivery service

### Gentle Breeze Movement

Donations through the Gentle Breeze Movement help needy communities and via education projects. We supported a total of 29 schools in the provinces of Jiangxi, Anhui, Jiangsu, Shandong, Guizhou and Shaanxi to renovate their premises and introduce new tools to improve learning environment for students.



### China Guangcai Loving Home – Home of Happiness and Peace

We have been participating in this public welfare project since 2014. Volunteers travel to mountainous areas of Chongqing to support children whose parents work far from home, helping them with schoolwork and extracurricular activities.

### Shanghai Soong Ching Ling Foundation – BEA Charity Fund

In 2015, we supported the establishment of a Firefly Centre in Yantai, Shandong province. Computers, projectors, furniture, books and other items valued at more than HK\$200,000 were donated to over 600 students.

# 4 ACHIEVEMENTS AND TARGETS

Achievements in 2015	Targets for 2016	Medium Term Targets (Two to Three Years)
<b>Environment</b>		
<b>Green Certification</b>		
<ul style="list-style-type: none"> <li>Achieved a Wastewi\$e certificate for the 14th consecutive cycle.</li> <li>BEAM Plus Existing Buildings V1.2 certification – final Platinum Rating – was obtained for Towngas headquarters.</li> </ul>	<ul style="list-style-type: none"> <li>To achieve a Wastewi\$e certificate for the 15th consecutive cycle.</li> <li>To explore and apply for other global and local environmental certifications.</li> </ul>	
<b>Gas Production Plant Modification</b>		
<ul style="list-style-type: none"> <li>A natural gas system at our Ma Tau Kok production plant was commissioned to use natural gas as a feedstock and fuel.</li> </ul>		
<b>Waste Management</b>		
<ul style="list-style-type: none"> <li>A waste audit and a green office campaign were conducted at Towngas headquarters.</li> </ul>	<ul style="list-style-type: none"> <li>To initiate and implement follow-up actions to reduce waste and study the feasibility of food waste composting activities.</li> </ul>	<ul style="list-style-type: none"> <li>To implement measures to enhance waste reduction and recycling in the headquarters.</li> </ul>
<b>Adapting to Climate Change</b>		
<ul style="list-style-type: none"> <li>A company-wide climate change risk assessment was conducted for our Hong Kong operations.</li> </ul>	<ul style="list-style-type: none"> <li>To review findings from the assessment and implement an adaptation plan.</li> </ul>	<ul style="list-style-type: none"> <li>To continuously monitor the progress of the adaptation plan across different departments.</li> </ul>
<b>Carbon Management</b>		
<ul style="list-style-type: none"> <li>Towngas completed its sixth mainland carbon reduction project competition.</li> </ul>	<ul style="list-style-type: none"> <li>To organise the seventh mainland carbon reduction project competition.</li> <li>To launch a corporate ESG data management system.</li> </ul>	<ul style="list-style-type: none"> <li>To encourage greater participation in the competition.</li> <li>To continue upgrading our corporate ESG data management system to cater for the increased demand on ESG data and information disclosure.</li> <li>To identify and explore new initiatives relating to emissions reduction and resource conservation.</li> </ul>
<b>Technological Improvements</b>		
<ul style="list-style-type: none"> <li>A feasibility study on hydroelectric technology and its applications for reducing electricity consumption at the Tai Po plant was completed.</li> <li>To further extend our rainwater collection system, the designs for pipe routing were completed.</li> <li>A feasibility study on reusing concentrate from our reverse osmosis plant as make-up water for our cooling towers was completed.</li> </ul>	<ul style="list-style-type: none"> <li>To begin procuring materials for the second rainwater collection area.</li> </ul>	

## Achievements and Targets

Achievements in 2015	Targets for 2016	Medium Term Targets (Two to Three Years)
<b>Other Environmental Initiatives</b>		
<ul style="list-style-type: none"> <li>A rooftop organic farm was set up at Towngas headquarters to demonstrate the practical application of a green and healthy lifestyle.</li> <li>Seven different types of environmentally-friendly cleaning products are now in use at headquarters, representing over 50% of the total cleaning products used.</li> </ul>	<ul style="list-style-type: none"> <li>To continue promoting the rooftop organic farm at headquarters.</li> <li>To optimise the operation of the chiller plant system to improve energy savings at headquarters.</li> <li>To replace the existing lift lobby lighting system with LED lights to achieve further energy savings at headquarters.</li> </ul>	<ul style="list-style-type: none"> <li>To study and develop environmental best practice guidelines for the Towngas cooking centre, restaurant and gas refilling stations.</li> <li>To study and develop green and healthy cooking tips.</li> <li>To study the feasibility of increasing the greening of off-take stations and gas production plants.</li> <li>To improve the energy efficiency of the lift system at headquarters.</li> </ul>
<b>Safety</b>		
<b>Safety and Health Training and Promotion</b>		
<ul style="list-style-type: none"> <li>HSE Day, HSE Month, the Contractor HSE Programme and an Occupational Health Campaign were successfully held. HSE awareness and a safety culture were promoted among our colleagues and contractors.</li> <li>Two experience-sharing visits were organised for our mainland employees. A number of process safety training courses were organised for ECO mainland employees.</li> </ul>	<ul style="list-style-type: none"> <li>To organise HSE month, the contractor HSE Programme and an Occupational Health Campaign – 2016 Stay Healthy, for colleagues and contractors.</li> <li>To organise a Towngas experience-sharing visit, a 5-day practical firefighting training course at the Fire Services Department training school, as well as a process safety workshop for our mainland employees.</li> </ul>	<ul style="list-style-type: none"> <li>To develop key performance indicators for Occupational Safety and Health.</li> <li>To achieve the certification of Safety Engineer for all managerial staff in our mainland companies' risk management departments.</li> </ul>
<b>Safety Audit</b>		
<ul style="list-style-type: none"> <li>The third safety audit, with scoring, of nine ECO mainland gas refilling stations was successfully conducted with good results.</li> <li>The second safety audit, with scoring, of two ECO mainland chemical plants was completed with good results.</li> </ul>	<ul style="list-style-type: none"> <li>To conduct the fourth safety audit of our ECO mainland gas refilling stations.</li> <li>To conduct the third safety audit, with scoring, of our ECO mainland chemical plants.</li> </ul>	<ul style="list-style-type: none"> <li>To further promote safety awareness and a safety culture at our ECO mainland projects through education, training and experience-sharing visits.</li> <li>To further enhance the safety performance of our ECO mainland chemical plants through the implementation of the effective process safety management system and the monitoring of process safety KPIs.</li> </ul>
<b>Safety Procedures / Guidelines</b>		
<ul style="list-style-type: none"> <li>Emergency drills were successfully conducted in cooperation with local authorities by our ECO mainland business.</li> <li>Towngas Telecommunications Company Limited (TGT) successfully implemented a comprehensive HSE Management System for its data centres in mainland China. Relevant manuals were prepared and different types of training were conducted.</li> <li>A Contractor Safety Handbook providing information about risk management and preventive measures was published.</li> </ul>	<ul style="list-style-type: none"> <li>To coordinate a table top exercise for TGT.</li> </ul>	

Achievements in 2015	Targets for 2016	Medium Term Targets (Two to three years)
<b>Social</b>		
<b>Employee</b>		
<b>Career Development</b>		
<ul style="list-style-type: none"> <li>The career paths of young technical staff have been defined, with other initiatives on employee development, engagement, expanding recruitment channels and employer branding strengthened for the attraction and retention of talent.</li> </ul>		<ul style="list-style-type: none"> <li>To continue working on career paths for different jobs and strengthen other initiatives conducive to the attraction and retention of talent.</li> </ul>
<b>Knowledge Management</b>		
<ul style="list-style-type: none"> <li>Through the mobility programme, more than 20 colleagues took up new assignments of various durations across various locations and business segments.</li> <li>Specialised training programmes under seven key areas (maintenance, quality assurance, purchasing, tendering, warehousing, quality improvement and innovation) were arranged to initiate learning and sharing between employees of mainland and Hong Kong utilities.</li> </ul>		<ul style="list-style-type: none"> <li>To conduct cross-location knowledge transfer and best practice sharing activities between business units in mainland China and the corporate office in Hong Kong.</li> </ul>
<b>Learning and Development (L&amp;D)</b>		
<ul style="list-style-type: none"> <li>A well-structured Towngas L&amp;D curriculum has been implemented.</li> </ul>	<ul style="list-style-type: none"> <li>To further equip frontline employees with skills to handle customer complaints in difficult situations.</li> <li>To support the corporate initiative of “Growth = Innovation x Implementation”, L&amp;D programmes will be arranged for different levels of employees across businesses.</li> <li>To continue corporate-level training courses at different locations across mainland China.</li> </ul>	<ul style="list-style-type: none"> <li>To make use of technology-based training solutions, such as a blended learning approach, so that our employees across diverse locations can have easy access to corporate-level learning opportunities.</li> </ul>
<b>Talent Development</b>		
<ul style="list-style-type: none"> <li>A number of workshops, such as Change Management and Business Strategy Simulation, were organised as a continuation of the leadership development programmes – TLC+.</li> </ul>	<ul style="list-style-type: none"> <li>To launch recruitment campaigns in universities in Hong Kong, mainland China and overseas for our graduate trainee programmes.</li> <li>To continue identifying high potential employees at various levels through structured talent review processes.</li> </ul>	<ul style="list-style-type: none"> <li>To arrange more cross-business and cross-location learning and development opportunities to broaden knowledge exchange and sharing.</li> </ul>

## Achievements and Targets

Achievements in 2015	Targets for 2016	Medium Term Targets (Two to three years)
<b>Employee</b>		
<b>Creating an Inclusive Workplace</b>		
	<ul style="list-style-type: none"><li>• To expand partnership with NGOs serving people with disabilities to offer more employment opportunities.</li><li>• To initiate an education and communication process to provide colleagues with a general understanding of people with disabilities to facilitate interactions with them.</li></ul>	<ul style="list-style-type: none"><li>• To gradually increase the number of employees with disabilities in the Company by creating a barrier-free workplace and promoting an inclusive culture.</li></ul>
<b>The Community</b>		
<b>Community Project</b>		
<ul style="list-style-type: none"><li>• A grand total of 2,415,000 rice dumplings, 1,720,930 mooncakes and 421,218 servings of hot soup were distributed by the end of 2015.</li></ul>	<ul style="list-style-type: none"><li>• To support or sponsor events held by major non-profit organisations.</li><li>• To continue the Gas Appliances for the Community Programme with district councillors.</li><li>• To maintain the Towngas Concession Schemes to help the less fortunate.</li><li>• To support fundraising programmes organised by The Community Chest.</li><li>• To continue installing toilet washlets in elderly care centres.</li></ul>	
<b>Volunteer Programme</b>		
	<ul style="list-style-type: none"><li>• To explore community programmes for people with disabilities.</li><li>• To organise volunteer activities targeted at the elderly and children.</li></ul>	

	Unit	2015	2014	2013	2012	2011
<b>Economic Performance</b>						
<b>Operating (Company)</b>						
Customers as at 31 December (Hong Kong)	Number	1,839,261	1,819,935	1,798,731	1,776,360	1,750,553
Town gas sales (Hong Kong)	Million MJ	28,404	28,835	28,556	28,360	28,147
Installed capacity (town gas production in Hong Kong)	Thousands of cubic metres per hour	525	511	511	511	511
Maximum daily demand	Thousands of cubic metres	6,172	6,571	6,283	6,403	6,742
<b>Financial</b>						
Revenue	HK\$ million	29,591	31,615	28,246	24,923	22,427
Manpower costs	HK\$ million	2,844	2,706	2,282	2,013	1,700
Taxation	HK\$ million	1,727	1,771	1,655	1,485	1,344
Dividends	HK\$ million	4,047	3,680	3,346	3,042	4,148
Profit attributable to shareholders	HK\$ million	7,302	7,109	6,854	7,712	6,150
<b>Safety Performance</b>						
<b>Inspection and Training</b>						
Trench inspections	Number	14,044	16,390	13,675	17,599	16,533
Regular safety inspections – home visits	Number	1,236,796	1,247,727	1,021,089	1,114,409	1,177,367
Community safety exhibitions	Number	13	12	12	12	13
Community safety talks	Number	14	10	5	6	5
In-house safety training	Number of man-hours	17,558	19,726	17,822	20,254	14,047
External staff safety training	Number of man-hours	4,991	6,385	6,181	6,720	7,071
<b>Occupational Health and Safety<sup>1</sup></b>						
Accidents – all industrial injuries	Number	19	14	15	10	10
Reportable accidents	Number	15	12	12	7	9
Accident frequency rate	Number of accidents per 100,000 man-hours	0.29	0.22	0.24	0.19	0.19
Occupational diseases rate	Number of incidents per 100,000 man-hours	0	0	N/A	N/A	N/A
Accident incidence rate	Number of reportable accidents per 1,000 employees	5.3	4.4	4.9	2.5	2.9

## Key Statistics

	Unit	2015	2014	2013	2012	2011	
Traffic accident injury rate	Number of traffic accident injuries per 100 vehicles	1.68	1.68	1.47	3.74	3.11	
Industrial injury man-days lost	Number of man-days	596	132	194	111	160	
Fatal accidents	Number	0	0	1	0	0	
<b>Employees</b>							
Employees as at 31 December <i>(Hong Kong gas business only)</i>	Number	1,999	1,972	1,966	1,943	1,938	
Employees as at 31 December <i>(all Hong Kong staff)<sup>2</sup></i>	Number	2,380	2,331	2,310	2,266	2,239	
Employees as at 31 December <i>(mainland China)</i>	Number	45,292	44,257	42,294	39,142	35,570	
Average turnover of workforce <i>(Hong Kong gas business only)</i>	%	4.8	6.4	5.1	4.6	4.6	
Average turnover of workforce <i>(all Hong Kong staff)</i>	%	5.8	7.4	5.9	5.5	6	
Average turnover of workforce <i>(mainland China)</i>	%	3.2	N/A	N/A	N/A	N/A	
Ratio of male to female in Hong Kong – Employees	Number	3.8:1	3.8:1	3.7:1	3.8:1	4:1	
Ratio of male to female in Hong Kong – Senior Managers	Number	4.1:1	3.9:1	3.9:1	3.8:1	4.5:1	
<b>New Recruitment</b>							
Male	<30	Number	63	55	57	N/A	N/A
	30-39	Number	45	44	26	N/A	N/A
	40-49	Number	21	24	12	N/A	N/A
	50-59	Number	14	19	17	N/A	N/A
	60+	Number	2	1	1	N/A	N/A
Female	<30	Number	25	19	33	N/A	N/A
	30-39	Number	23	15	21	N/A	N/A
	40-49	Number	8	5	3	N/A	N/A
	50-59	Number	1	3	5	N/A	N/A
	60+	Number	1	1	1	N/A	N/A
Total	Number	203	186	176	N/A	N/A	
<b>Average Training Hours (HSE training excluded)</b>							
Male	Hours	8.5	8.4	13.4	13.9	9.4	
Female	Hours	10.6	14.7	15.8	13.7	5.7	
General employee	Hours	8.3	9.2	11.9	11.8	8.0	
Managerial employee	Hours	14.7	14.1	32.6	33.0	15.0	
Average	Hours	8.9	9.7	13.9	13.8	8.6	
Anti-corruption	Total no. of hours	300	155	128.75	93.75	56.25	

	Unit	2015	2014	2013	2012	2011
<b>Employee Performance and Career Reviews</b>						
Male	%	88.8	86.8	88.9	N/A	N/A
Female	%	74.5	79.6	75.6	N/A	N/A
General employee	%	86.1	85.5	86.2	N/A	N/A
Managerial employee	%	82.8	83.9	85.3	N/A	N/A
Average	%	85.8	85.3	86.1	N/A	N/A
<b>Social Performance</b>						
<b>Customer Service</b>						
Customer compliments	Number	6,766	5,849	6,026	6,090	5,658
Customer complaints	Number	6	8	16	7	10
<b>Community Involvement</b>						
Employees participating in voluntary services	Number	859	994	918	1,079	1,215
Voluntary service hours (including employees and customers)	Number of hours	75,369	79,551	72,025	68,508	64,956
Charitable donations made by the Group	HK\$ million	7.1	34.2	58.6	7.9	33.5
<b>Environmental Performance<sup>3</sup></b>						
<b>Energy and Resource Consumption</b>						
<b>Towngas Headquarters</b>						
Electricity	GJ	21,277	21,696	22,934	24,889	24,626
Town gas	GJ	1,477	1,353	1,586	4,135	4,058
Water <sup>4</sup>	Cubic metres	15,791	16,735	14,006	13,470	14,033
<b>Vehicle Fleet<sup>5</sup></b>						
Unleaded petrol	GJ	15,662	17,254	17,569	19,418	N/A
Diesel	GJ	9,420	8,144	7,003	5,718	N/A
<b>Estimated Packaging Material Use</b>						
Carton	Tonnes	866	824	798	N/A	N/A
Wood	Tonnes	25	24	23	N/A	N/A
Plastic	Tonnes	1	1	1	N/A	N/A
<b>Resource Conservation</b>						
Naphtha saved (Gas production) <sup>6</sup>	GJ	519,160	492,844	477,459	639,480	671,272
Town gas saved (Gas production) <sup>6</sup>	GJ	31,766	34,945	41,942	41,912	44,011
Water saved (gas production) <sup>6</sup>	Cubic metres	213,766	223,174	230,288	218,887	177,463

## Key Statistics

	Unit	2015	2014	2013	2012	2011
Amount of raw water collected by the rainwater harvesting system <i>(Tai Po Plant)</i>	Cubic metres	3,663	N/A	N/A	N/A	N/A
Grid electricity saved through PV panels	GJ	312	313	312	311	312
Landfill gas utilisation as heating fuel in gas production <i>(from Shuen Wan)</i>	GJ	31,766	34,945	41,942	41,912	44,011
Landfill gas utilisation as heating fuel in gas production <i>(from NENT SNG)</i>	GJ	519,160	492,844	477,459	639,480	671,272
Electricity saved <i>(Towngas Headquarters and Ma Tau Kok office)<sup>6</sup></i>	GJ	19,557	18,581	17,396	15,316	15,243
CO <sub>2</sub> reduction equivalent to electricity saved <i>(Towngas Headquarters and Ma Tau Kok office)<sup>7</sup></i>	Tonnes	3,803	3,613	3,376	2,981	2,963

### Emissions

Carbon dioxide (CO <sub>2</sub> )	Daily average in metric tonnes (metric tonnes per million MJ of town gas)	898 (11.82)	904 (11.7)	931 (12.09)	904 (11.92)	913 (11.91)
Nitrogen oxides (NO <sub>x</sub> )	Daily average in kg (kg per million MJ of town gas)	292 (3.84)	310 (4.02)	353 (4.59)	318 (4.2)	356 (4.65)
Sulphur oxides (SO <sub>x</sub> )	Daily average in kg (kg per million MJ of town gas)	1.3 (0.02)	1.4 (0.02)	1.2 (0.02)	1.5 (0.02)	1.5 (0.02)
Greenhouse gases <i>(production equipment)<sup>8</sup></i>	Tonnes in terms of CO <sub>2</sub> equivalent	357,845	358,582	365,981	360,634	362,307

### Effluent and Waste

Treated wastewater discharged to marine water bodies	Daily average in cubic metres	47	N/A	N/A	N/A	N/A
Wastewater discharged to sewage	Daily average in cubic metres	239	N/A	N/A	N/A	N/A
Total wastewater discharged	Daily average in cubic metres (cubic metres per million MJ of town gas)	287 (3.77)	307 (3.97)	323 (4.2)	435 (5.74)	447 (5.84)

	Unit	2015	2014	2013	2012	2011
Non-hazardous waste landfilled <sup>9</sup>	Tonnes	123.6	129.5	126.7	N/A	N/A
Non-hazardous waste recycled <sup>10</sup>	Tonnes	210	N/A	N/A	N/A	N/A
<b>Hazardous Waste<sup>11</sup></b>						
Chemical waste generated	Daily average in kg (kg per million MJ of town gas)	49 (0.64)	83 (1.07)	150 (1.94)	93 (1.23)	51 (0.67)
Spent catalyst collected for metal recovery	Tonnes	11.7	23.6	39.7	35.3	41.1
Spent lube oil recycled	Tonnes	13.2	25.2	46.7	25.3	16.1
<b>Others</b>						
Metal chemical drums reused	Number	18	15	90	318	216
Plastic chemical drums reused	Number	1,927	1,030	914	969	1,064
Scrap metal recycled – old gas appliances	Tonnes	1,265	1,229	1,278	926	840
Scrap metal recycled – from construction and maintenance of plant and pipelines	Tonnes	77	23	28	35	11
PE pipe recycled	Tonnes	23.6	17.8	12.6	10.7	27
Gas appliances polyfoam packaging materials avoided	Tonnes	1.56	1.29	1.31	1.52	2.19
<b>Environmental Training</b>						
In-house environmental training	Number of man-hours	865	1,012	1,420	1,951	549
External environmental training	Number of man-hours	386	349	818	1,120	255

Remarks:

1. The accident incidence rate includes the number of employees of our subsidiaries. Contractor employees are excluded.
2. Hong Kong hired employees of HKCG, U-Tech, TGT, manufacturing business, S-Tech, and ECO Stations.
3. The following conversion factors are adopted to standardise the units to gigajoules (GJ): town gas (0.048GJ/unit), electricity (0.0036GJ/kWh), petrol (0.033GJ/L), diesel (0.036GJ/L). For the conversion of naphtha and landfill gas to energy term, they are calculated by multiplying individual monthly fuel volumetric data by their corresponding monthly average calorific value.
4. All water is collected from the rainwater collecting system, and is purchased and distributed by the HKSAR Water Supplies Department.
5. Tankers and ECO Aviation Fuel Services (EAFS) vehicles are excluded.
6. These figures are the savings achieved compared with the data of a reference year before implementing the respective environmental initiative.
7. 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).
8. The emission factors of greenhouse gas emissions due to electricity consumption are obtained from the sustainability reports of the two local electricity companies, which are released one year prior to our reporting year.
9. Non-hazardous waste landfilled refers to the refuse and wood pallets collected from Towngas Headquarters, and construction waste collected from the Tai Po Plant.
10. Non-hazardous waste recycled refers to the plastics, papers, paper cartons and metals collected for recycling contractors. Apart from these waste categories, we also collect other non-hazardous waste, such as used red packets and cartridges, on a regular basis.
11. All chemical waste handling procedures comply with the Waste Disposal Ordinance (Cap. 354). We also collect other hazardous waste, such as rechargeable batteries, fluorescent tubes and obsolete electronic products, and give them to licensed recyclers on a regular basis.



## YOUR FEEDBACK

This publication provides a quick snapshot of our key sustainability activities in 2015. If you would like any further information, our full Towngas Sustainability Report 2015 is available online at [www.towngas.com](http://www.towngas.com)



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

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