



Greening up your life

# SUSTAINABILITY REPORT 2015

[Stock code: 3]



5  
Whys?

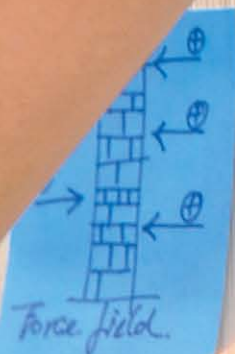
CSR

TQM

Value Analysis



創意  
思維



氣候  
變化

Award  
Scheme

Continuous Transformation

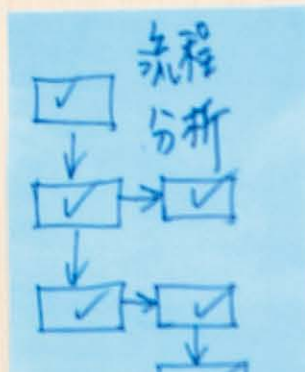


SQS



$$\text{Customer Value} = \frac{(\text{Quality} + \text{Service})}{(\text{Waiting time} \times \text{cost})}$$

GROWTH =  
INNOVATION x  
IMPLEMENTATION





# 1 MANAGING DIRECTOR'S MESSAGE

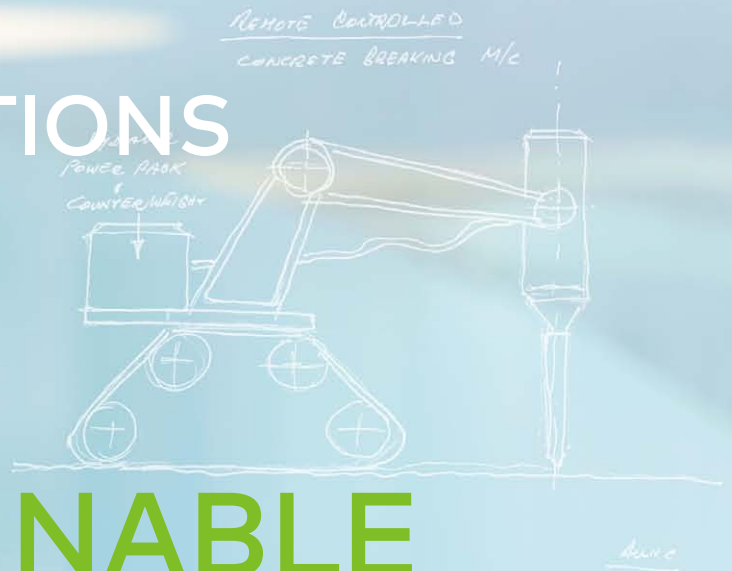
We empower staff to contribute their creative endeavours to our development and engage our stakeholders to drive a sustained joint effort that engenders a better future for society.

**Alfred W K Chan**  
Managing Director



# OUR PREPARATIONS FOR A

# SUSTAINABLE FUTURE



Towngas  
Hall of Innovation

The year 2015 heralded significant change in the energy landscape on both a regional and global level. With the ratification of the Paris Agreement at the United Nations Climate Change Conference in December, public discourse is mounting on climate change and the drive towards clean energy is gaining traction. Meanwhile, challenges continue to shadow the energy sector with the prolonged slump in oil and natural gas prices and a global economic climate shrouded in uncertainty. In the midst of this, Towngas maintained its growing momentum as Hong Kong's most enduring public utility and one of mainland China's leading energy providers, reshaping 2015 into a year of opportunity.

Offering insight on our progress in 2015, this report describes our preparations for a sustainable future and the next generation of customers and employees, as well as our continued efforts to reduce our carbon footprint further. At Towngas, our concept of growth encompasses more than just the economics of our business; rather, we subscribe to a balanced approach that gives weight to environmental and social sustainability. Internally, we introduced staff to our "Growth = Innovation x Implementation" formula, empowering them to contribute their creative efforts to our development. Externally, we engaged our stakeholders and other interested parties with the aim of driving a sustained joint effort to engender a better future for society.

## Applying New Technologies to Create a Greener Environment

As a pioneer in alternative energy, Towngas is continually exploring and applying cutting-edge technologies that convert waste into valuable resources. With the strategic objective of curtailing greenhouse gas emissions in Hong Kong, Towngas is harnessing treated landfill gas as energy fuel, with a third operation plant currently under construction at the South East New Territories (SENT) landfill site in Tseung Kwan O. Its completion will establish Hong Kong as a world city with a high landfill gas utilisation rate.

We also continued to spearhead environmental innovations across every level of our business operations. Through a system of energy-saving measures, in 2015 our headquarters in North Point became Hong Kong's first non-residential building to earn the final Platinum rating under the BEAM Plus Existing Buildings V1.2 certification scheme.

## Implementation Underpinned by Innovation and Quality

Owing to the extensive development and maintenance needs of our widespread service area, Towngas has invested in new technological applications to reinforce the reliability and efficiency of our services. Our field inspections are facilitated by automatic or remotely-controlled devices such as our quadcopters, which we use to inspect external service risers for potential gas leaks, as well as robots designed to inspect and rectify defects along underground pipes. Another example is our Aquashield mechanism, which automatically seals off gas pipes to protect them from inundation if water ingress to our underground network happens.

While technological advancement is paramount, we also strive to expand our capability to better manage our operations. Building on our experience of enhancing safety performance over the past years, we stepped up our efforts this year through the introduction of our Total Quality Management concept in mainland China, motivating employees to pursue quality and excellence.

## A Longstanding Commitment to Safe Operations and Customer Satisfaction

The Group's city gas accounts in Hong Kong reached a total of 1.84 million in 2015, while on the mainland the total exceeded 20 million. It remains our staunch belief that our commitment to customer safety tolerates no compromise. Despite the rapid pace of growth in our customer accounts on the mainland, we are heartened by the 50% drop in major gas-related accidents compared to years past.

In 2015, we introduced enhancements to our customer service that made for new ways to communicate. Our mobile platform in Hong Kong was revamped to enhance customer convenience by offering access to a wider range of service options, recipes and tips for low-carbon living. We also introduced an eService platform to provide our mainland customers with support for online payment, service appointments, gas usage readings and more.





## Caring for Our Employees and the Community

As part of our drive to nurture employee well-being, we carried on organising the Fun Living Series programme for our Hong Kong employees this year, aiming to cultivate a positive mindset and promote health, happiness at work and family cohesion. Our mainland employees also joined our qualification schemes, which are equipping a new generation of engineering professionals within our talent pool.

As a key facet of our social programmes, we contribute resources in aid of the elderly and disadvantaged in the community on a regular basis. In 2015, we partnered with district councillors to distribute gas cooking appliances to the elderly and families in need through the Gas Appliances for the Community programme in Hong Kong. Mainland China also benefited from the Towngas culture of warmth and care under the Gentle Breeze Movement, through which donations were made to enhance learning facilities for students on the mainland.

## Developing Partnerships and Synergies

With business partners along our supply chain, our fundamental strategy is based on cultivating long-term, trust-based relationships. In addition to the environmental procurement policy introduced for our Hong Kong operations, we released a code of practice apprising suppliers of our corporate social responsibilities and encouraging them to endeavour with us towards sustainable development. Our contractors enjoy the same level of commitment and care shown to our staff. Through the dedication of the Company and our business partners, 2015 saw the introduction of a new range of value-added services and innovative products in mainland China.

As we face future challenges, we are excited by the prospect of driving the Company's sustainable development through safe and high-quality service delivery, green innovation, technological advancement as well as a diversified business portfolio. We will continue to review the performance of our sustainability programmes, and as always, we welcome valuable feedback from our stakeholders.

**Alfred W K Chan**  
Managing Director





## 2 ABOUT THIS REPORT

This is the 12th Sustainability Report for Towngas (the report). In the report, we present our achievements and evaluate the progress made on our journey towards business sustainability. During our preparation, we did not simply summarise our performance over the course of the year; we took the additional step of revisiting and reviewing our existing programmes and policies, with the aim of facilitating better future sustainability strategies. We firmly believe the report is an effective communication platform through which our stakeholders can not only gain a thorough understanding of our operations and their associated impacts but also provide valuable feedback as the basis of our performance improvement.

The report covers our sustainability-related activities from 1 January 2015 to 31 December 2015, unless otherwise specified. Chapters 3 and 4 provide information about our businesses and financial performance. Statistics are presented in absolute figures, having been normalised to present a comparable picture where appropriate and applicable. For further details of our business initiatives, financial data and the entities included in consolidated financial statements, please refer to the [Annual Report 2015](#) available at our website.

The report was prepared in accordance with the Core Option of the Global Reporting Initiative (GRI) G4 Guidelines, the associated GRI Oil and Gas Sector Supplement, as well as the Environmental, Social and Governance Reporting Guide (the ESG Guide) under Appendix 27 to the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (Listing Rules). A third-party verification was also conducted to assure the completeness, accuracy and reliability of the report and to ensure its adherence to these reporting guidelines. Interested readers may refer to p.112 for the verification statement.

### 2.1 | Scope of the Report

The report mainly covers material aspects of our Hong Kong operations. Due to the diverse and evolving nature of our businesses in mainland China, the determination of a reporting scope beyond Hong Kong proved to be a difficult exercise. In spite of this challenge, we are taking a gradual approach to expanding the scope of our reporting in this respect. In

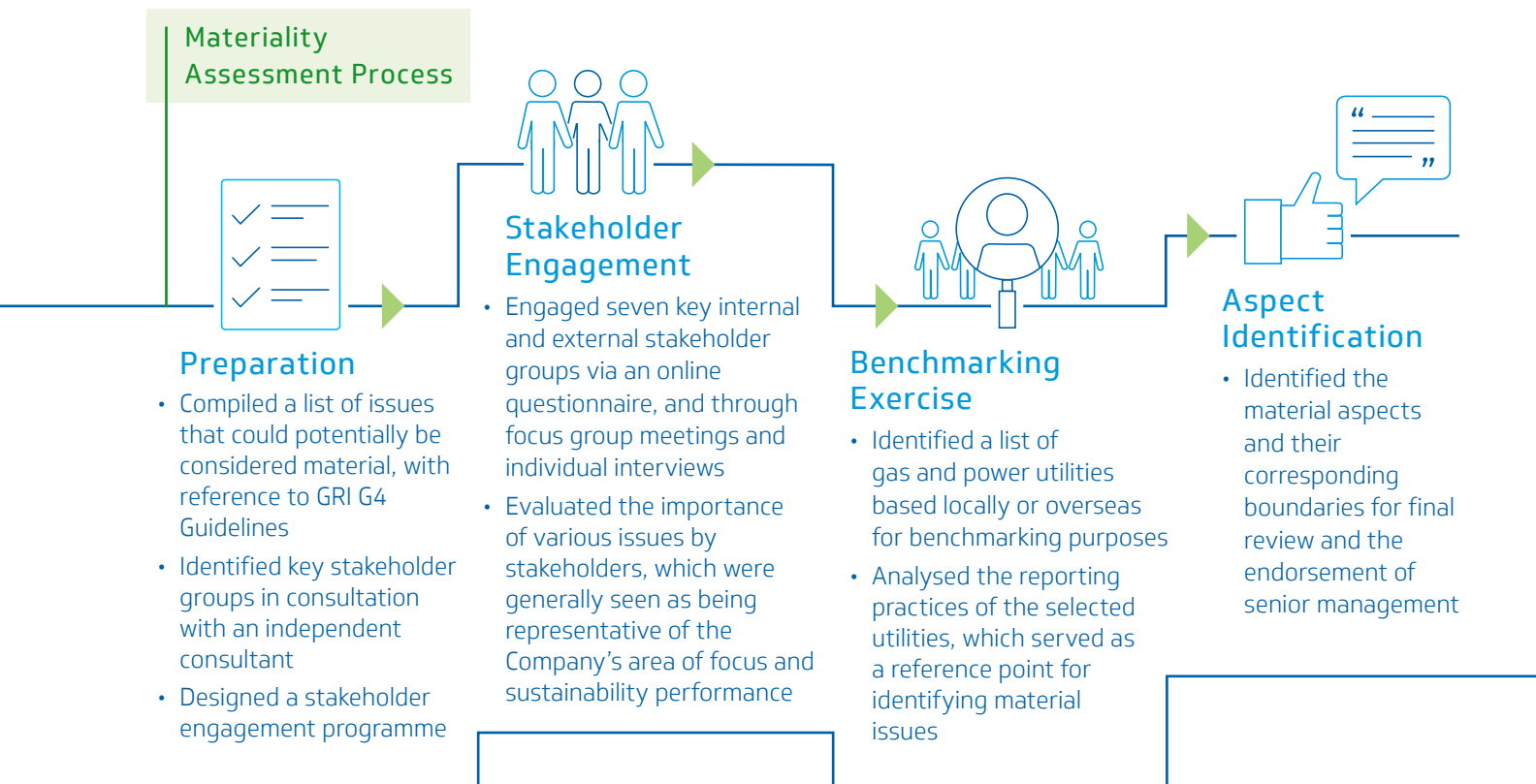
the report, readers will find highlights of the issues and performance of our mainland operations disclosed mainly in the form of case studies. Interested readers may also refer to the 2015 Corporate Social Responsibility Reports of [Towngas China](#) and [Hua Yan Water](#) for more information.



## 2.2 | Materiality Assessment

To ensure that the report focuses on the most important aspects of our sustainability and to formulate our future strategic direction for achieving our sustainability vision, this year we once again engaged an independent consultant to conduct a materiality assessment. A list of issues was assessed by internal and external

stakeholders, and then evaluated against peer companies' reporting norms. For the first time ever, we conducted a more extensive stakeholder engagement exercise this year by developing an online questionnaire that was widely distributed, garnering responses from over 100 Towngas staff members and providing a clearer picture of the views of internal stakeholders.



Please refer to p.22 in Chapter 5 for further details on the stakeholder engagement process, as well as the full list of the Company's material aspects and their corresponding boundaries.

## 2.3 | Acknowledgement

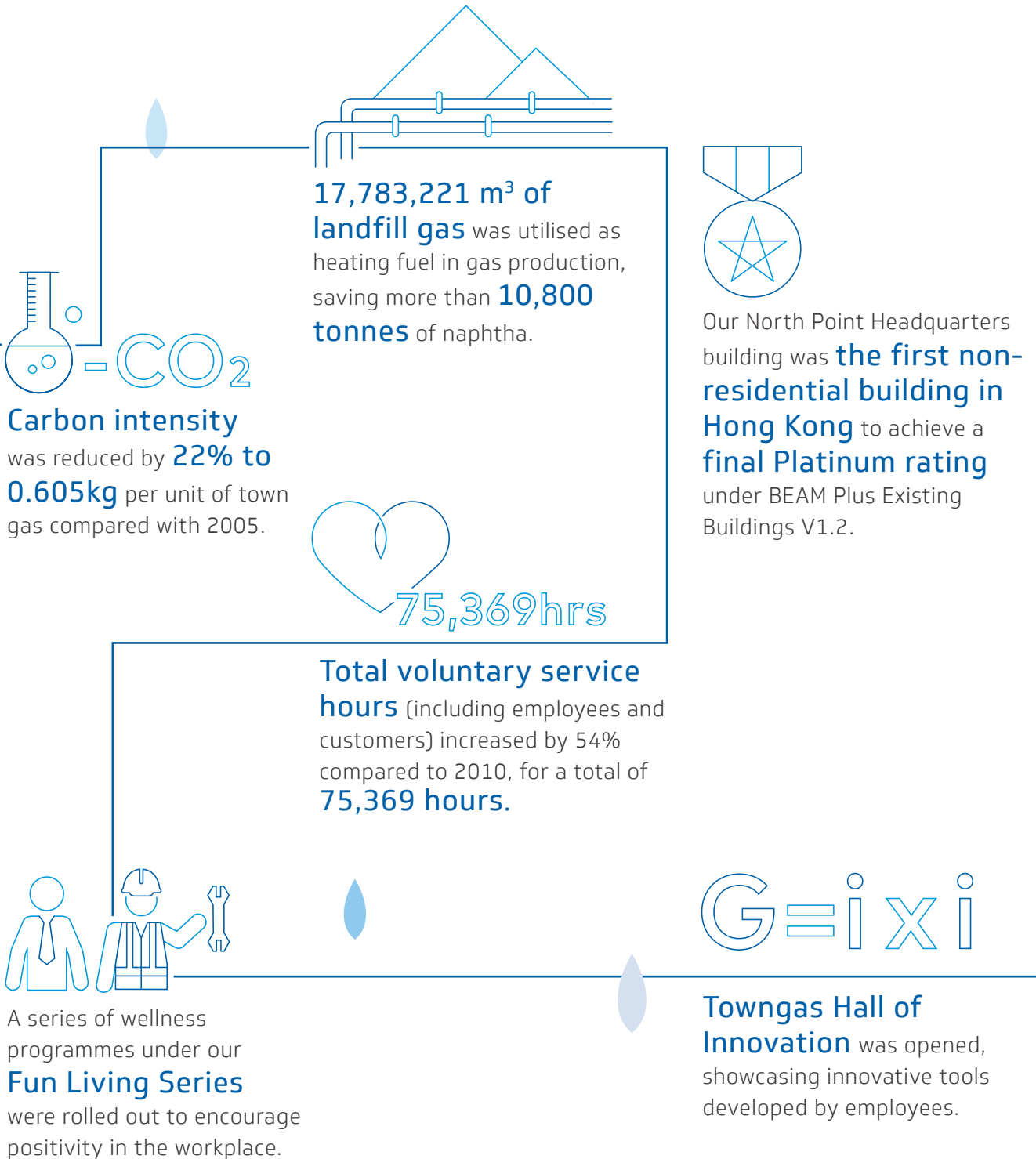
The report was prepared with a high level of commitment and support from various departments at Towngas, and was endorsed by the Company's senior management. We would like to extend our sincere gratitude to all those who contributed to the report and to everyone at Towngas who shares the objective of enhancing our business sustainability.

## 2.4 | Feedback

The full version of the report is published online, while printed copies of the summary version are also available. Readers are welcome to provide feedback on our sustainability performance or reporting approach by completing the [feedback questionnaire](#) or by contacting us directly at [ccd@towngas.com](mailto:ccd@towngas.com).

# 3 2015 HIGHLIGHTS

## 3.1 | Hong Kong Operations



## 3.2 | Mainland Operations



144,477 hrs

**144,477 man-hours** of **technical training** were given to employees, representing a 19% increase compared to 2014.



The **Total Quality Management (TQM)** programme was introduced to motivate employees to pursue quality and excellence.

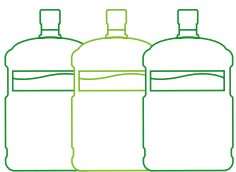


As an on-going initiative, the **Carbon Reduction Competition** received 14 proposals in 2015, preventing roughly **29,100 tonnes** of CO<sub>2</sub> emissions.

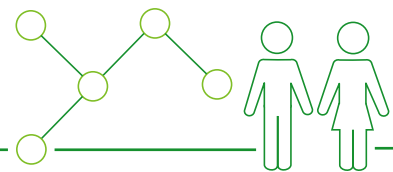


222

A total of **222 projects**, covering 25 provinces, autonomous regions and municipalities.



The Group's water business celebrated its 10th anniversary and began offering **high-end bottled purified water**.



**Our network of customer centres** expanded to a total of 231 outlets in 79 cities, offering customers a one-stop experience.

### 3.3 | Major Corporate Awards and Recognition in 2015

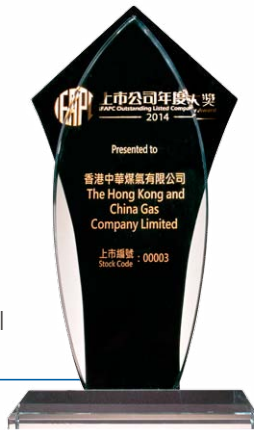
#### Governance

##### **The Excellence of Listed Enterprise Awards 2015**

by Capital Weekly

##### **The Outstanding Listed Company Award**

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



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

by Hang Seng Indexes Company Limited



##### **Hong Kong Service Awards – Public Utilities**

by East Week

##### **Sing Tao Service Awards – After-Sales Services**

by Sing Tao Daily



#### Business & Service

#### Safety

##### **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



##### **Safety Performance Award – Other Industries**

(The Hong Kong and China Gas Company Limited)

– Construction Industry (U-Tech Engineering Company Limited)

by the Occupational Safety & Health Council





## Social

**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

**Employer of Choice Award 2015**

by Job Market Publishing Limited

**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

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

by The Hong Kong Council of Social Service

**Corporate Social Responsibility (CSR) Award 2015**

by Job Market Publishing Limited

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

by Metro Daily and City Spirit

**Hang Seng Pan Pearl River Delta Environmental Awards 2013/14 – Green Medal – 5 Years+ Entrant**

by the Federation of Hong Kong Industries and Hang Seng Bank

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

by U Magazine

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

by Wen Wei Po

**Excellent ECO Partners (Towngas Telecommunications Company Limited)**

by CAPITAL

**Sustainable Business Award**

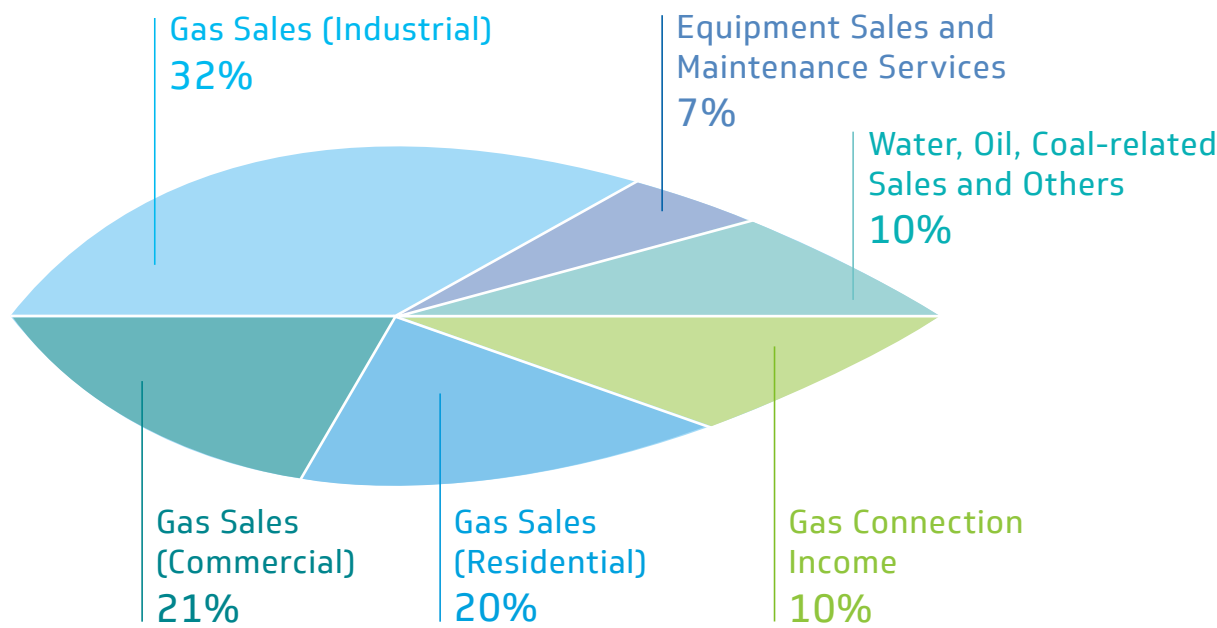
by World Green Organisation

## Environment

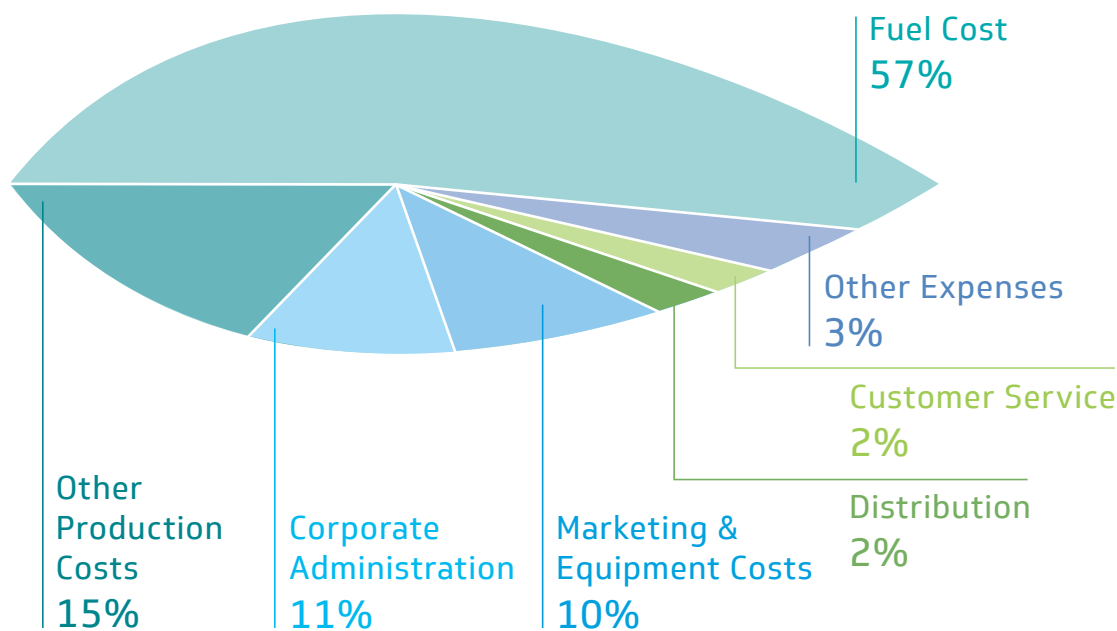
### 3.4 | 2015 Financial Analysis

Revenue	Capital Expenditure	Manpower Costs
HK\$ 29,591 million	HK\$ 6,356 million	HK\$ 2,844 million

#### Analysis of Revenue



#### Analysis of Expenditures





The Hong Kong and China Gas Company Limited (Towngas) is a limited liability company incorporated and domiciled in the Hong Kong Special Administrative Region (HKSAR) and listed on The Stock Exchange of Hong Kong Limited. Founded in 1862, Towngas was the first public utility in Hong Kong, and in the many years since, it has grown hand-in-hand with Hong Kong. Over the long history of the Group, we have been witnessed to and part of great changes in our society. Today, Towngas is a large energy utility of Hong Kong, supplying town gas to the city's residential, industrial and commercial sectors. Capitalising on our solid technical and management expertise, our portfolio has also been steadily expanding in mainland China. Headquartered in Hong Kong, as at 31 December 2015, the Group employed around 48,000 people in Hong Kong and mainland China.

## 4.1 | Our Vision and Mission

In an age when the call for a more balanced and sustainable way of achieving development is stronger than ever, the efforts of every player in society are indispensable as we all work to tackle the world's most pressing challenges. While governments play an important role by defining legal frameworks and regulations, the business sector is also setting rules and providing examples of how

corporations should actively respond to these challenges. As part of the community, Towngas fully recognises the importance of managing our business operations in a responsible manner. Our vision and mission clearly articulate our commitment to the environment, while our sustainability strategies and programmes are developed in line with these principles in order to consistently improve our performance.



## Business Drivers





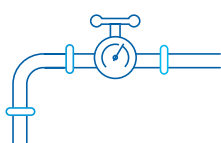
## 4.2 | Our Business

### Hong Kong Operations

Our core businesses in Hong Kong encompass gas production and distribution, the marketing and sale of gas appliances and aftersales services.



In 2015



Our pipeline network  
over **3,500 km**



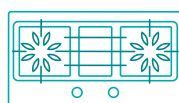
Customer base  
**1.84 million accounts**



Supply continuity  
rate **over 99.99%**



Around **1,300 suppliers**,  
**87%** local suppliers



Cook For Love and Total Kitchen Solution  
campaigns won **HKMA/TVB Awards for  
Marketing Excellence 2015 – Merit Awards**

### Operational Statistics

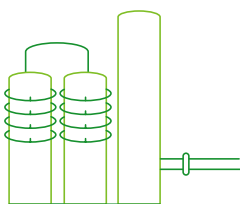
	2015	2014	2013
Number of Customers as at 31 December	1,839,261	1,819,935	1,798,731
Town Gas Sales, million MJ	28,404	28,835	28,556
Length of Gas Network, km	3,573	3,545	3,520
Installed Capacity, thousand m <sup>3</sup> per hour	525	511	511
Maximum Daily Demand, thousand m <sup>3</sup>	6,172	6,571	6,283

## Mainland Utility Businesses

Our utility businesses on the mainland encompasses piped city-gas, midstream natural gas and city water projects.



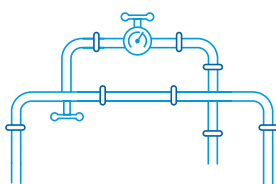
In 2015



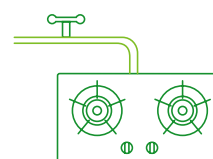
**131** city-gas projects covering 23 provinces, autonomous regions and municipalities



Over **20 million** gas customer accounts



Supply network over **80,000 km**



Around **760,000 units** of Bauhinia gas appliances sold



Hua Yan Water began offering **high-end bottled purified water product**

## Operational Statistics

	2015	2014	2013
Number of Gas Customers as at 31 December, million	20.9	19.0	17.3
Gas Sales, billion m <sup>3</sup>	15.5	15.2	13.4
Length of Gas Network, km	82,153	74,526	68,067
Number of Water Customers as at 31 December, million households	1.12	1.04	0.97
Water Sales, million tonnes	433	424	414

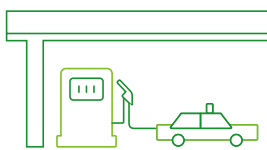


## New Energy and Diversified Businesses

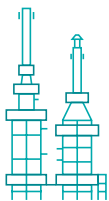
Responding to the surge in demand for clean energy and the risks presented by climate change, we develop environmentally-friendly energy businesses to drive innovation in related technologies. Moreover, we have diversified our business into telecommunications, information technology, engineering and the production of gas-related materials and devices.



### In 2015



**60 refilling stations** in operation, under construction or at the planning stages

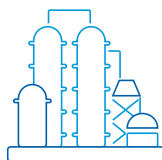


**A plant turning coke oven gas** into liquefied natural gas is under construction

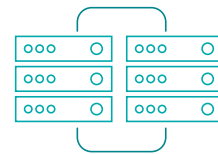


**6.07M**

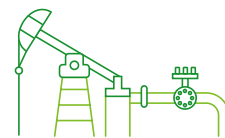
**6.07 million tonnes** of fuel were supplied to the Hong Kong International Airport



A coal-based methanol plant in Inner Mongolia was upgraded to increase its output capacity to **300,000 tonnes** per annum



Five data centres, with another one under construction, having a total capacity of **15,000 server racks**



Oilfield in Thailand increased annual output up to **1.86 million barrels**

For a general summary of our roles and services, please refer to Appendix I – Our Roles and Services on p.108.

## 4.3 | Corporate Governance

Good corporate governance is the foundation of a company's long-term success. At Towngas, good corporate governance not only ensures that our operations are managed and directed in a fair and transparent manner, it also enhances our credibility and ensures that stakeholders' interests are taken into account. To this end, all Towngas operations are conducted within a stringent corporate governance framework. Our governance structure, policies and procedures are well-established and applied to all business activities at all levels.

The highest governance body within the Group is the Board of Directors (the Board) which is committed to ensuring a high standard of corporate governance, sound internal controls and effective risk management to enhance transparency, accountability and integrity. Consisting of nine members, including two executive directors and seven non-executive directors (three of whom are independent), the Board is ultimately accountable for the Group's activities and strategies, as well as the financial performance of the Group.

During the year ended 31 December 2015, Towngas complied with all code provisions as set out in the Corporate Governance Code contained in Appendix 14 to the Listing Rules.

## Risk Management

Towngas considers risk governance among its top priorities and is committed to establishing a robust system of risk management and internal control. The Board has the overall responsibility to oversee risk management and evaluate and determine the nature and extent of the risks it is willing to take in a manner consistent with its strategic business drivers. To ensure proper risk reporting channels, the Group Risk Management Committee (GRMC) recommends the risks and corresponding controls to the Executive Risk Management Committee (ERMC), which eventually reports to the Board for endorsements.

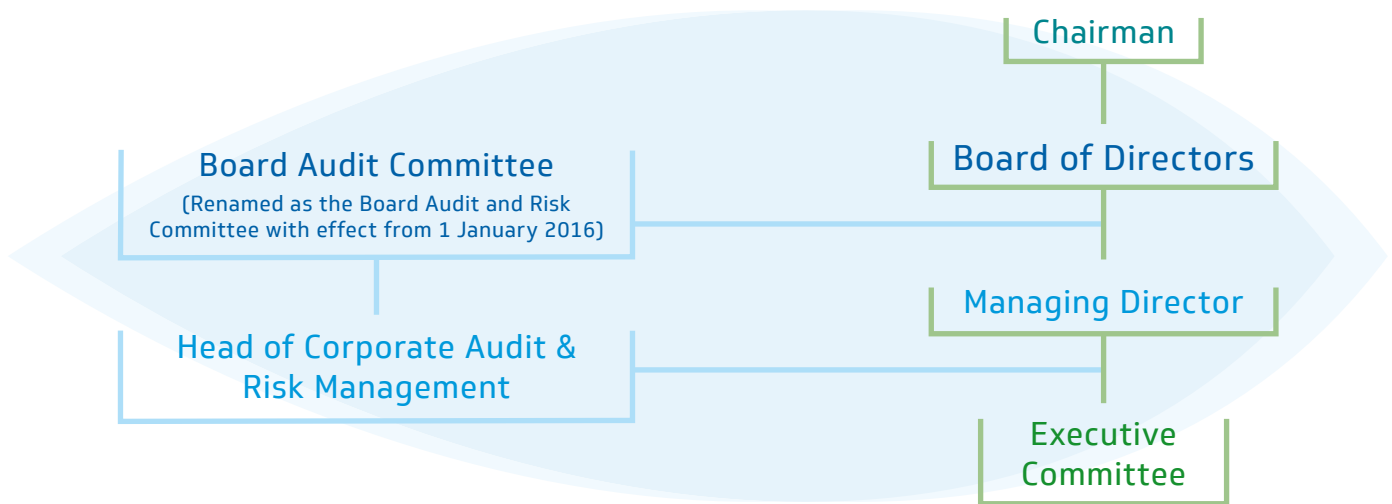
## Code of Conduct

Towngas has a strict internal code of conduct which provides guidelines on best practices and ethical behaviour when handling such issues as bribery and corruption, equal opportunities, fair practices, freedom of association, conflicts of interest and whistleblowing. Towngas is highly cautious about misconduct related to bribery and conflict of interest. We have clearly explained to our employees that they must not request any advantage from and/or offer any advantage to people who have a stake in our business such as customers, suppliers, contractors, authorities, or any other stakeholder.

The Company's whistleblowing policy is available at [www.towngas.com](http://www.towngas.com). The policy aims to provide formal channels for employees and other stakeholders to raise concerns about any misconduct, malpractice or irregularity, particularly in relation to violations of our code of conduct or business ethics and principles.



## Towngas Organisational Structure



Three Board Committees have been established to help the Board to oversee and strengthen internal controls.

### Board Audit Committee

(Renamed as the Board Audit and Risk Committee with effect from 1 January 2016)

This Committee reviews the Company's current financial standing, considers the nature and scope of audit reports, and ensures that internal control systems operate in accordance with applicable standards and conventions.

### Remuneration Committee

This Committee makes recommendations to the Board on the Company's policy and structure for all directors and senior management (who are also executive directors of the Company) remuneration. The Committee also reviews and approves the special remuneration packages of all executive directors with reference to corporate goals and objectives resolved by the Board from time to time, and determines, with delegated responsibility, the remuneration packages of individual executive directors.

### Nomination Committee

This Committee reviews the structure, size and composition (including the skills, knowledge and experience) of the Board, and makes recommendations on any proposed changes to the Board to complement the Group's corporate strategy. It also makes recommendations to the Board on nominations and appointment of directors and assesses the independence of independent non-executive directors.

The biographies of the Directors of Towngas, along with details about the composition and operation of the Board and its Committees, can be found in our [Annual Report 2015](#).

# 5 SUSTAINABILITY AT TOWNGAS

Towngas places a high value on sustainability, and carefully considers environmental, social and economic concerns throughout its operations. We have established a strong company vision, “To be Asia’s leading energy supplier and service provider, with an environmentally-friendly focus”, which drives us to operate our businesses in a sustainable manner. We not only put our best efforts into maintaining a leading position in the energy sector, but also believe it is important to closely engage the companies along our supply chain in order to create a coherent, unified effort to create sustainability.

## 5.1 | HSE Policy and Governance

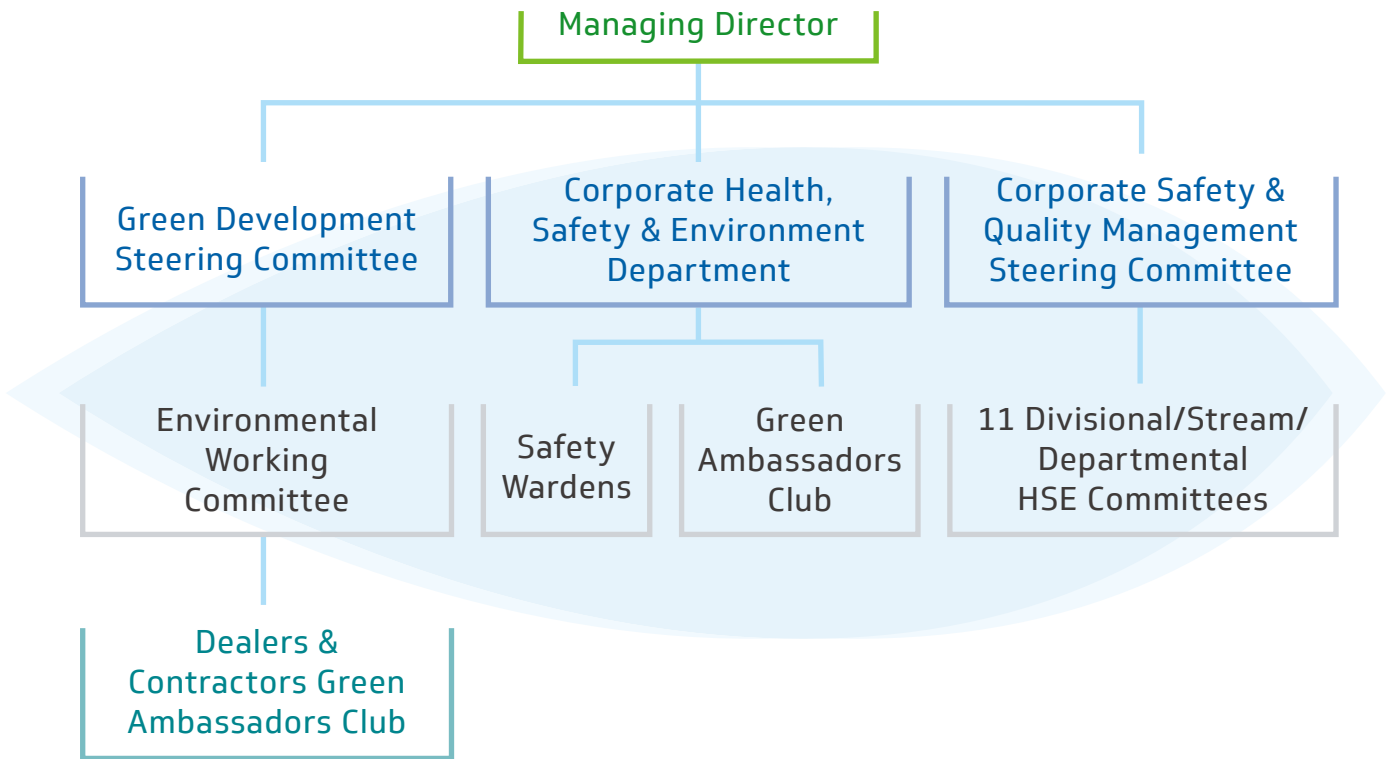
In addition to our corporate governance structure detailed in Chapter 4, the Group’s health, safety and environment (HSE) governance is of equal importance to creating awareness of and promoting rigorous working responsibilities at Towngas.

### HSE Policy

The Group pledges 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 the sustainable development of the Group.



## HSE Management Structure



Chaired by the Managing Director, the Group's multi-tier HSE management structure is supported by a dedicated Corporate Health, Safety and Environment Department (CHSED). The head of CHSED is responsible for reporting all HSE and sustainability issues to the Managing Director of Towngas. Supporting CHSED, the Green Development Steering Committee and Corporate Safety & Quality Management Steering committee assist in the formulation of all HSE policies, while the Environmental Working Committee (EWC) organises company-wide environmental programmes to further enhance the environmental awareness of the Company's employees, contractors and dealers.

This year, we specifically took into account the implications the changing climate has on our business activities and operations. Risks related to super typhoons, heavy rainfall resulting in landslides, and flooding are of

particular concern. In view of this, a climate change risk assessment was conducted on our business activities in Hong Kong to identify potential risks associated with this phenomenon. We will keep monitoring the situation across the business to identify potential risks and ascertain mitigation measures.

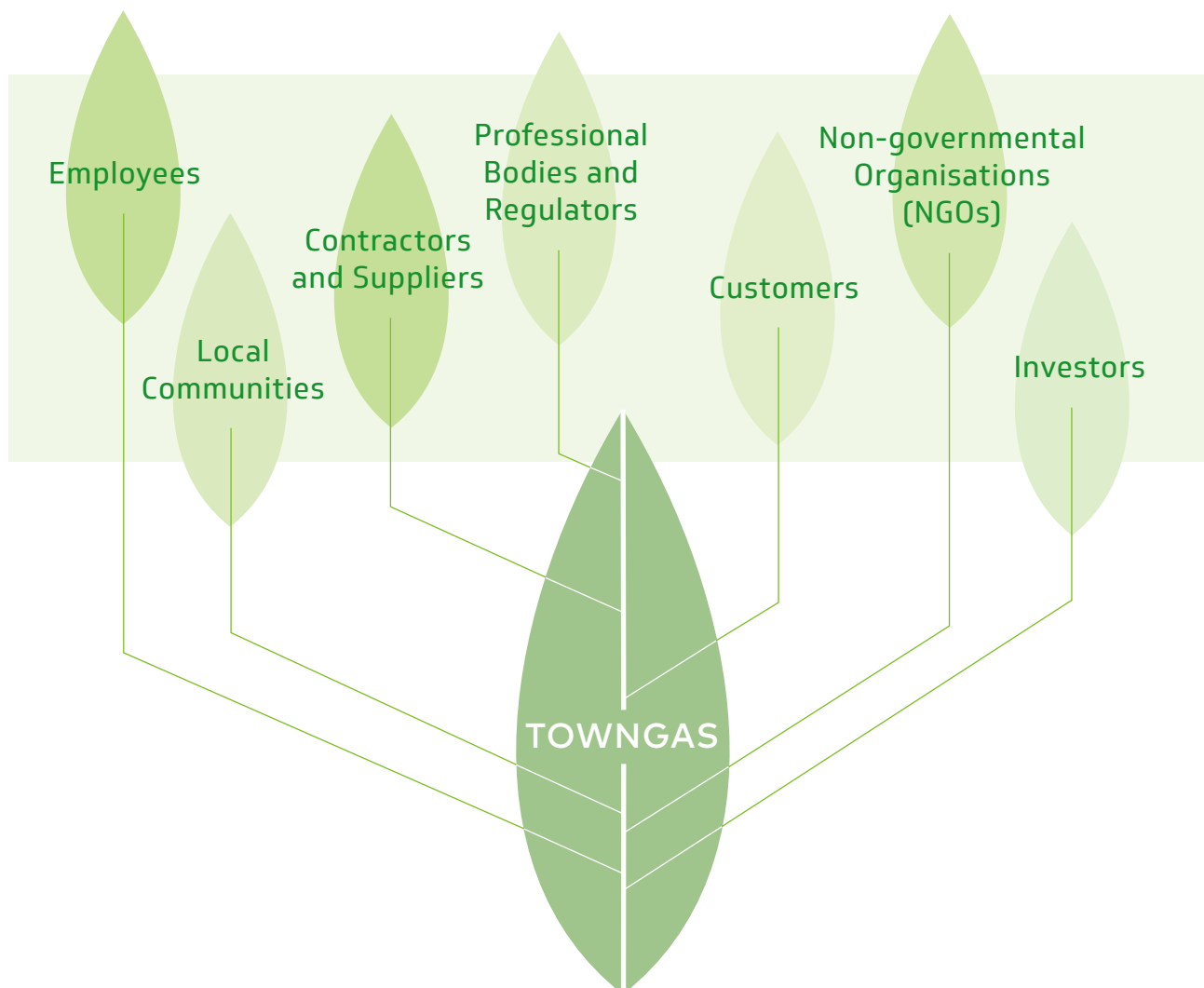
To further strengthen the culture among employees, Green Ambassador and Safety Warden positions were established to facilitate the communication of the latest HSE information and programmes. Training sessions and activities are provided regularly to equip employees with up-to-date knowledge and skills. In 2015, the Pledge-to-Green Programme was organised especially for the Green Ambassadors, encouraging them to adopt green practices at their workplace and in their daily lives.

As the Group operates in different geographical locations, the HSE Departments of Group companies outside Hong Kong, such as Hong Kong and China Gas Investment Limited (HCIL), Towngas China Company Limited (TCCL), ECO Environmental Investments Limited (ECO) and other ventures in mainland China, are responsible for their own HSE management and operations. These entities obtain support from CHSED in Hong Kong. In every company, the HSE Department reports directly to the General Manager to ensure strict adherence to health and safety guidelines.

## 5.2 | Stakeholder Engagement

Stakeholder engagement is very much a prevailing trend in the business community these days. This concept provides not only a means to work towards the betterment of a company, but it also improves the society in which the Company operates. By listening to the views of our stakeholders and responding to them proactively, our engagement mechanism allows Towngas to evaluate our operations and help identify areas for continuous improvement.

### Our Key Stakeholders







## Stakeholder Groups, Communication Channels and Key Concerns / Expectations

Communication Channels	Key Concerns / Expectations	Our Actions in Relation to the Key Concerns
<b>Employees</b>		
<ul style="list-style-type: none"> <li>Employee surveys</li> <li>Suggestion boxes, bulletins, newsletters, intranet, meetings with the employee union</li> <li>Issue-specific consultative sessions</li> <li>Superior Quality Service Programme</li> <li>Strategy Ambassadors Club (Hong Kong)</li> <li>Green Ambassadors Club (Hong Kong)</li> <li>Fun Living Series in 2015</li> <li>iCandy Corner</li> <li>Social media platforms, such as Yammer in Hong Kong and WeChat in mainland China</li> <li>Whistleblowing system</li> </ul>	<ul style="list-style-type: none"> <li>Remuneration could be reviewed more frequently to ensure it aligns with market trends to retain talents.</li> <li>More support on personal career development should be provided for junior employees, such as organising internal career experience sharing workshops.</li> </ul>	<ul style="list-style-type: none"> <li>We define the career paths of young technical staff with other initiatives on employee development and engagement. Employer branding is strengthened to attract and retain talents. We regularly benchmark our remuneration packages with external market trends to ensure competitiveness.</li> </ul>
<b>Local Communities</b>		
<ul style="list-style-type: none"> <li>District Council Focus Teams</li> <li>Community programmes, e.g. volunteer service opportunities, festive food delivery campaigns, etc.</li> <li>District Fire Safety Committees</li> </ul>	<ul style="list-style-type: none"> <li>The operation of gas production facilities, as well as underground pipelines, can pose potential risks to nearby residents.</li> </ul>	<ul style="list-style-type: none"> <li>To ensure public safety, Towngas effectively communicates its emergency plans with government departments and other stakeholders. A 24-hour Grid Control Centre continuously monitors the gas network, our emergency service team is on standby around-the-clock, and regular surveys and inspections are carried out with advanced equipment.</li> </ul>
<b>Professional Bodies and Regulators</b>		
<ul style="list-style-type: none"> <li>Joint Utilities Safety and Occupational Health Policy Group (JU SOHPG)</li> <li>Joint Utilities Policy Group (JUPG)</li> <li>Climate Change Business Forum (Hong Kong)</li> <li>China Gas Association</li> <li>Gas Authority (GSO)</li> <li>The Hong Kong Institution of Engineers</li> <li>Polyethylene (PE) piping coalitions and the International Organisation for Standardisation (ISO) Technical Committees on PE pipes and fittings</li> </ul>	<ul style="list-style-type: none"> <li>More information could be provided on the Company's sustainability performance as compared to industry peers, both locally and internationally.</li> </ul>	<ul style="list-style-type: none"> <li>We actively participate in seminars and conferences to share our best practices and sustainability performance among corporations and industry peers.</li> </ul>

Communication Channels	Key Concerns / Expectations	Our Actions in Relation to the Key Concerns
<b>Customers</b>		
<ul style="list-style-type: none"> <li>• Newsletters and leaflets</li> <li>• Bi-monthly bill inserts</li> <li>• Company websites, social media platforms and mobile app</li> <li>• Regular maintenance visits, safety inspections and safety talks</li> <li>• 24 visits to residential customers by customer focus teams annually</li> <li>• Monthly surveys and irregular focus group research</li> <li>• Year-round publicity and community campaigns</li> <li>• Management Offices/Incorporated Owners' Associations</li> <li>• 24-hour customer service hotline and 19 customer centres</li> <li>• 24-hour emergency hotline</li> <li>• Reporting channels for possible improprieties, misconduct, malpractice or irregularities</li> </ul>	<ul style="list-style-type: none"> <li>• Towngas could further promote sustainability, riding on its large customer base by conveying its sustainability issues and performance through existing communication channels.</li> </ul>	<ul style="list-style-type: none"> <li>• We set up a wide range of two-way communication channels to collect feedback and provide up-to-date information about our sustainability initiatives.</li> </ul>
<b>Investors</b>		
<ul style="list-style-type: none"> <li>• Annual General Meetings and investor briefings</li> <li>• Interim and Annual Reports</li> <li>• Sustainability Reports</li> <li>• Company website</li> <li>• Non-deal roadshows</li> <li>• Investment conferences and investor meetings</li> </ul>	<ul style="list-style-type: none"> <li>• The image of Towngas is generally good in the energy sector. More about the Company's efforts in sourcing alternative and/or renewable sources to enrich its fuel mix is of great concern.</li> </ul>	<ul style="list-style-type: none"> <li>• Overall, our plans, actions and investments are aligned with China's environmental objectives. In particular, our new energy business is positioned to be a high-growth driver focusing on renewable, recycling &amp; clean fuels, while developing proprietary technologies.</li> </ul>
<b>Contractors and Suppliers</b>		
<ul style="list-style-type: none"> <li>• On-going audits</li> <li>• Regular management meetings</li> <li>• Green Ambassadors Clubs for dealers and contractors</li> <li>• Seminars and workshops</li> <li>• Whistleblowing system</li> </ul>	<ul style="list-style-type: none"> <li>• Continuous dialogues and communication are essential to ensure that they have the latest information related to our operations.</li> </ul>	<ul style="list-style-type: none"> <li>• We have various channels for communication, and organise HSE Day, HSE Month and a Contractor HSE Programme to promote HSE awareness and safety culture among colleagues, contractors and suppliers.</li> </ul>



Communication Channels	Key Concerns / Expectations	Our Actions in Relation to the Key Concerns
<b>Non-governmental Organisations (NGOs)</b>		
<ul style="list-style-type: none"> <li>• Year-round green partnership programmes and community programmes</li> <li>• Annual meetings with green groups</li> </ul>	<ul style="list-style-type: none"> <li>• The need to combat climate change is clear and urgent. Towngas may play a more active role in lobbying the government for more sustainable energy policies and the implementation of sustainability programmes.</li> <li>• To enable people with disabilities (PWDs) to integrate into the community, Towngas may review existing policies to employ more PWDs.</li> </ul>	<ul style="list-style-type: none"> <li>• We harness landfill gas as energy fuel.</li> <li>• We actively seek to offer more opportunities to individuals with disabilities and improve facilities and workstations to cater for their needs.</li> </ul>

## Material Aspects to Towngas































At Towngas, we communicate with our stakeholders through the aforementioned on-going communication channels, which are both casual and formal. The Group also goes further, with reference to the requirements of the Global Reporting Initiative (GRI) G4 Guidelines, to which this report adheres, specific stakeholder engagement exercises are carried out annually.

During this process, stakeholders are engaged based on their relevance to and influence on our sustainability performance, and are asked to evaluate the relative importance of a list of issues relevant to the operations. They are also invited to provide us with feedback on these issues, which is analysed to define the key issues to be reflected in the report. This feedback also serves as a reference for future sustainability planning.

This year, we engaged seven stakeholder groups for this exercise, namely employees, non-governmental organisations, professional bodies, suppliers, investors, customers and business partners. The engagement methods included focus group meetings, face-to-face interviews, phone interviews and questionnaires.

On top of this, the exercise also made reference to local and overseas peer companies' sustainability disclosure practices. These references were obtained after a thorough study of selected companies' identified material aspects. After an overall materiality analysis, these aspects were identified and endorsed by senior management.

## Material Aspects and the Corresponding Boundaries

Aspect	Boundaries	
	Internal	External
<b>Economic Performance</b>		
Economic Performance		
Market Presence		
<b>Environmental Performance</b>		
Materials		
Energy		
Water		
Emissions		
Effluent and Waste		
Products and Services		
Compliance		
<b>Labour Practices and Decent Work</b>		
Employment		
Occupational Health and Safety		
Training and Education		
<b>Society</b>		
Local Communities		
Emergency Preparedness		
Asset Integrity and Process Safety		
<b>Product Responsibility</b>		
Customer Health and Safety		
Product and Service Labelling		
Marketing Communications		
Customer Privacy		
Compliance		
Fossil Fuel Substitutes		



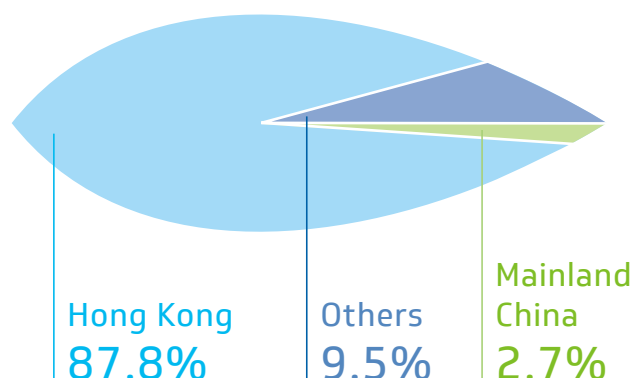
### 5.3 | Supply Chain Management

To ensure acting in the best interests of the Company, our stakeholders and society, it is vital that we see beyond the sustainability issues which exist only within our organisational boundaries by seeking to influence our partners as well. We engage over 1,200 suppliers in the Asia-Pacific region which provide a wide range of goods and services that support our operations. In order to exercise due diligence, Towngas has extended our responsibilities to these suppliers and contractors to seek a collective improvement in sustainability practices and performance.

In 2015, we introduced a number of measures which allow the Group to disseminate our sustainability values along our supply chain and share our best practices with the public. On the procurement front, we now encourage our suppliers to adopt sustainable procurement practices and use green specifications to facilitate the purchase of green products. Suppliers who offer green products will be considered on a priority basis. Preference will also be given to local suppliers who conduct their business in a socially responsible and environmentally-friendly manner. Currently, we engage around 87% of our suppliers locally.

To ensure that Towngas upholds a high standard of business integrity throughout our operations, a Corporate Social Responsibility (CSR) Code of Practice with regard to business ethics, workplace operations, marketplace activities, community contact and environmental undertakings has also been developed for our suppliers. They are required to observe various practices and procedures to ensure that they comply with ethical standards. The Group has a robust system to assure quality levels along the entire supply chain, such as routine checks, on-going assessments and factory audits.

### Supplier Profile by Geographical Location




Further details of the CSR Code of Practice for Suppliers can be found at [Towngas CSR Code of Practice for Suppliers](#).

In addition to addressing operating practices, we also organise meetings and devise incentive programmes. Individual meetings and supplier conferences are arranged on a regular basis to foster better communication. Our business partners are also invited to participate in company corporate events, such as safety awareness days, festive events and annual dinners.

The Group has also extended our supply chain management measures in mainland China. Our procurement teams conduct CSR and Code of Practice audits to ensure that our suppliers meet all environmental, social and governance criteria. In 2015, we revisited 14 joint ventures to assess their procurement work flow and check for any deviations from standard practices.





Our employees have taken part in organic rooftop farming to experience the joy it brings and realise the importance of environmental protection.

# 6 ENVIRONMENTAL PERFORMANCE

30 | 31

Facing the immense challenges associated with climate change and environmental degradation, Towngas takes its environmental obligations seriously. On one hand, we are in a relentless search for cleaner fuel options, striving to reduce the environmental footprint of our energy service at source; on the other hand, we look for ways to optimise our operations to further enhance our overall performance. Leveraging our network, we also collaborate and partner with different stakeholders to positively impact the environment at large.

## Key Environmental Performance 2015 (Hong Kong)

### Greenhouse Gas (GHG) Emissions

GHG emissions from major gas production equipment were **357,845 tonnes** of carbon dioxide (CO<sub>2</sub>) equivalent.

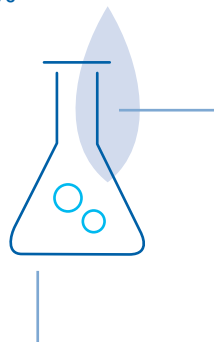
**Compared with 2014**  
-0.2%



### Chemical Waste

Total chemical waste output was **0.64 kg/TJ** of town gas.

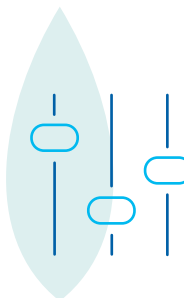
**Compared with 2014**  
-40%



### Water Quality

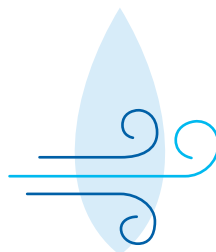
Total wastewater output was **3.77 m<sup>3</sup>/TJ** of town gas.

**Compared with 2014**  
-5%



### Noise

All installations and operations complied with statutory requirements. No noise abatement notices were received.



### Air Quality

- Total nitrogen oxides (NO<sub>x</sub>) output was **3.84 kg/TJ** of town gas.
- Total sulphur oxides (SO<sub>x</sub>) output was **0.02 kg/TJ** of town gas.

## Stakeholder Dialogue

### Comment from the Supplier

We have been working closely with Towngas over the years, supplying water boiler products to the Company. We strive to protect the environment through our business partnership. Our most recent collaboration involved a condensing water boiler, which has improved energy efficiency and lowered air emissions.

Towngas has encouraged us to improve our performance by imposing various environmental requirements. For example, we are required to provide green packaging for boiler accessories to minimise packaging waste as specified in the tender documents. We are impressed by the efforts of Towngas to promote sustainable development, and look forward to learning more about their future sustainability initiatives.

**Westly Hung**  
Managing Director  
Noritz Hong Kong Company Limited

### Our Response

Suppliers play an important role supporting the provision and development of our products and services. Over the years, we have leveraged the expertise of our suppliers in order to jointly develop innovative products to maximise our energy efficiency. We will continue to work closely with our suppliers to enhance our products and improve the overall performance of the gas industry.

## Achievements and Targets

The targets and corresponding achievements are reviewed every year. All environmental targets set for 2015 were achieved.

Achievements in 2015	Targets for 2016	Medium Term Targets (Two to Three Years)
<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 Building 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>	

Achievements in 2015	Targets for 2016	Medium Term Targets (Two to Three Years)
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### Gas Production Plant Modification

- A natural gas system at our Ma Tau Kok production plant was commissioned to use natural gas as a feedstock and fuel.

### Waste Management

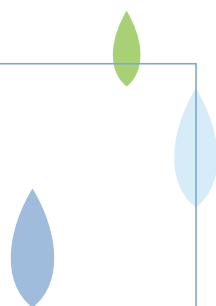
- |   |  |   |
|---|--|---|
| <ul style="list-style-type: none"> <li>A waste audit and a green office campaign were conducted at Towngas headquarters.</li> </ul> | <ul style="list-style-type: none"> <li>To initiate and implement follow-up actions to reduce waste and study the feasibility of food waste 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> |
|---|--|---|

### Adapting to Climate Change

- |   |  |   |
|---|--|---|
| <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> |
|---|--|---|

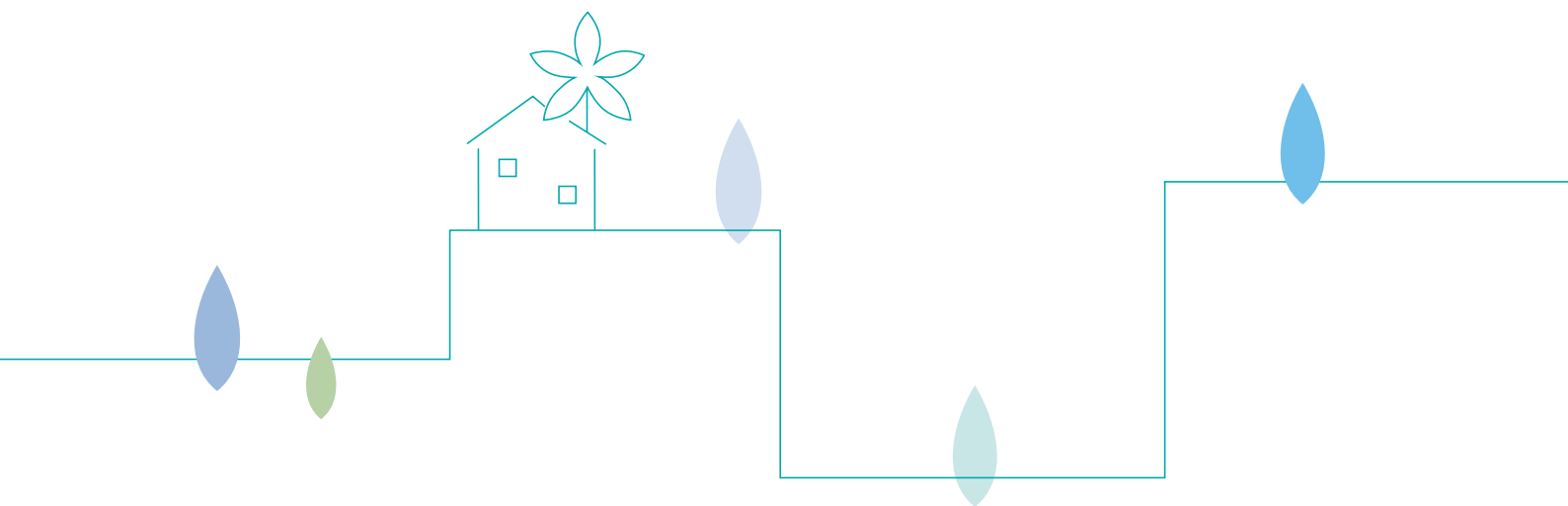
### Carbon Management

- |  |   |  |
|--|---|--|
| <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> |
|--|---|--|





Achievements in 2015	Targets for 2016	Medium Term Targets (Two to Three Years)
Technological Improvements		
<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>	
Other Environmental Initiatives		
<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>





## 6.1 | Our Approach

Environmental stewardship and environmental responsibility are cornerstones of our business operation. We actively seek ways to preserve natural resources and minimise environmental impact by designing, engineering and operating our facilities in an environmentally responsible manner. Under our governance model, we proactively engage stakeholders to address their concerns and encourage our employees to adhere to our “5Rs” principle wherever possible. We have established a systemic approach to managing our environmental impact through a range of internal policies, green key performance indicators and guidelines. We also gather feedback, heed suggestions from our stakeholders and integrate them into our approach to sustainable development for continuous improvement.

### Environmental Governance

Under our environmental governance framework, we have established an Environmental Working Committee (EWC) that oversees our operations to ensure they remain in line with sound governance standards, controls and guidelines. The Committee is supported by 12 functional subcommittees that play a crucial role in enhancing our corporate environmental management performance.



## The 12 Functional Subcommittees

- Management and Administration
- Education and Awareness
- Publicity and Promotion
- Environmental Information and Training
- Building Environment and Energy Conservation
- Environmental Assessment
- Waste Management
- Purchasing and Office Services
- Environmental Auditing
- Environmental Technology Services
- Environmental Risk Management
- Environmental Liaison with Contractors and Dealers

In 2015, around 40 objectives were achieved by the **12 functional subcommittees** under the EWC. To name a few examples,

- Collected obsolete office consumables and electronics for recycling
- Organised the Green Office Campaign for contractors and dealers
- Communicated and promoted “green specifications” within the Company
- Adopted electronic means for inspection works, reducing the use of paper



## Environmental Management System and Project Management

Towngas has implemented an environmental management system to ensure that all environmental risks in our gas production processes are systematically identified, monitored and managed to meet global industry standards. Our Tai Po plant has been certified to International ISO 14001 standards in which all significant environmental aspects are properly controlled, and any potential for further improvement is highlighted.

Prior to the development of any designated gas infrastructure project, we conduct Environmental Impact Assessments (EIAs) in accordance with Hong Kong's EIA ordinance. This ensures that all environmental aspects of the project are identified and monitored throughout its lifecycle and that the environmental impact of that project on its surroundings is mitigated and controlled.

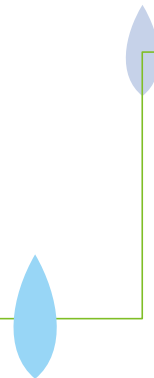
To gauge our office operations, Green Office audits are carried out every two months by the Green Ambassadors to evaluate our environmental footprint and identify any opportunities to reduce waste as well as energy and water use. As a result of adopting the green office practices, we have obtained the Green Office Label from the World Green Organisation since 2013.

As part of our supply chain management, tailored environmental checklists are created to use in order to assess contractors' environmental performance and help them achieve further improvement.

## Climate Change Risk Assessment and Mitigation Measures

2015 was the hottest year in Hong Kong on record. In the same year, we witnessed a new international agreement on climate change, which was unanimously signed by all 195 states in the United Nations Conference of Parties. This agreement created a firm commitment to both mitigating and adapting to climate change. Against this backdrop, the energy sector has a significant role to play in managing the risks associated with climate change while meeting the growing global demand for energy.

To strengthen our resilience in the face of climate change, the Company has commissioned an external consultant who conducted a comprehensive risk assessment and developed an action plan to address potential threats. The assessment identified several potential areas of direct impact, for instance, heat-related risks brought about by rising temperatures. We have also identified areas of indirect impact, such as extreme weather events that could lead to the delay of work and affect the stability of our transmission and operations.





We have also incorporated into our corporate emergency table-top exercise potential scenarios that could be experienced within the gas industry. Approaches such as our emergency response to naphtha tank damage and adaptation measures for a potential super typhoon have been developed and included in our standard practices, which provide guidance for staff under given situations. The Company's existing measures have also been reviewed by department managers with a view of devising both short-term and long-term strategies. For example, to cope with the increased threat of flooding at our Tai Po plant, we have installed water dams and auto-start submersible pumps in critical buildings, which will minimise interruptions to our operations from extreme weather events.

Throughout the year, we conducted a series of workshops about climate change. Representatives from different departments were invited to identify measures to mitigate the risks involved and discuss potential solutions to better manage such risks. We will continue to closely monitor the situation, introduce plans and adaptation measures and regularly review progress according to the changing environment.

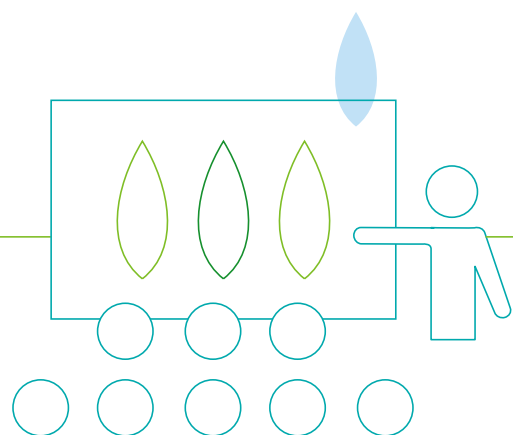
### Environmental Education and Training

We firmly believe that increasing environmental awareness among our staff is the most effective way to achieve and sustain environmental excellence. With on-going education and the guidelines provided in our Corporate Environmental Manual, our employees have attained – and continue to maintain – a high standard of knowledge

in green development and operations. In 2015, we emphasised the topics of sustainability and climate change in our training programmes. Local experts were invited to share their perspective on critical issues relating to climate change, with the goal of expanding our employees' global perspective.

We fully encourage our employees and contractors to play their part in protecting the environment. We actively encourage them to apply the Green Creativity Fund for organising interesting activities to enhance environmental awareness and improve corporate environmental performance.

In 2015, we had 865 man-hours of internal environmental training and workshops. Activities included an eco-detergent making workshop, a talk on sustainable tourism, a visit to the Jockey Club Museum of Climate Change, etc.



## 6.2 | Clean Energy

As a gas supplier, our choice of energy resources and how we develop our energy projects are of intrinsic importance to improving our environmental performance. To address environmental issues in a strategic way, we consistently seek opportunities to switch to cleaner fuels and alternative feedstock options.

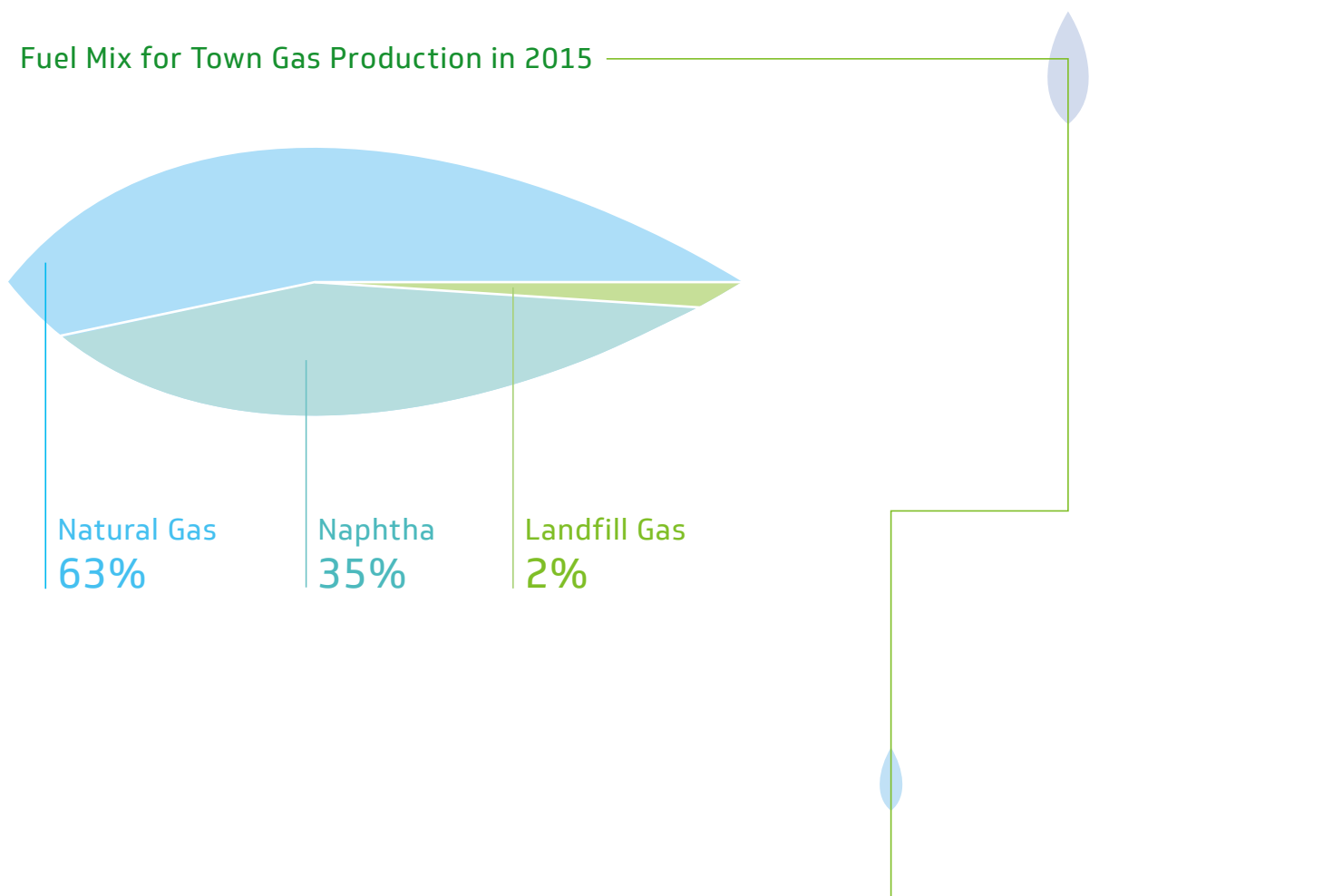
Natural gas is likely to play an increasing role in meeting future energy demands, due to the fact that it is flexible, abundant and produces low emissions. Since 2006, Towngas has used natural gas as an alternative feedstock option to produce town gas for Hong Kong households. In 2015, we modified our Ma Tau Kok plant with the aim of completely replacing the use of naphtha with natural gas in the plant's production process.

In mainland China, Towngas is committed to responding to the government's clean energy policies. In 2015, our piped city-gas businesses covered 23 provinces, autonomous regions and municipalities, serving over 20 million accounts. With the mainland government pledging to reduce China's carbon emissions, the expansion of our city-gas business will provide a cleaner fuel option with lower carbon emissions, which will assist China in meeting its international declaration.

### Utilisation of 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.

### Fuel Mix for Town Gas Production in 2015





## Utilisation of Landfill Gas

1999

- Began harnessing landfill gas from the Shuen Wan landfill site for small-scale, on-site use

2007

- Landfill gas from the North East New Territories (NENT) landfill is treated and transmitted to our Tai Po plant to replace some of the naphtha as heating fuel in gas production

2015

- The Tseung Kwan O South East New Territories (SENT) Landfill Gas Utilisation Project was under construction, with a commencement target of Q3-2016
- Upon the completion of this new facility, landfill gas will be treated and transported to a regulating station in Tseng Lan Shue, where it will be subsequently added to the town gas supply network

2016

- Landfill gas is also utilised to generate electricity, which further helps reduce carbon emissions and turn waste into energy. The treated syngas from the NENT landfill site will fuel the combined heat and power generating system installed in Alice Ho Miu Ling Nethersole Hospital. Expected to become operational in Q3-2016, the system will not only supply electricity, but also generate thermal by-products that will produce steam and hot water for use in the hospital

## New Energy Developments and Unconventional Energy

### Clean Vehicular Fuel

LPG produces less harmful emissions than other conventional fossil fuels. The increasing use of LPG can indirectly improve Hong Kong's 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 so as to reduce the use of diesel and help mitigate air pollution. A total of 60 stations are in operation, under construction or at the planning stage.

### Coalbed Methane

Coalbed Methane (CBM), mainly composed of methane is found in coal seams. CBM is formed during the process of coalification and is widely considered an "unconventional" source of natural gas. Extracting CBM before the commencement of mining activities means that this coal mining by-product can be harnessed as a renewable energy source instead of being flared off, producing smog and energy waste. Our liquefied coalbed methane (LCBM) plant in Shanxi province has a designed production capacity of 250 million cubic metres per year.



### Methanol and Gasoline

Instead of burning coal as a fossil fuel, a gasification technique can chemically transform coal into methanol after synthesis. Methanol is a clean fuel and a chemical feed that produces extremely low  $\text{SO}_x$ ,  $\text{NO}_x$  and particulate emissions during combustion, helping address local pollution problems. Efficiency enhancement works have now been completed at our coal-based methanol plant in Inner Mongolia to increase the plant's output capacity to 300,000 tonnes per annum.

Moreover, an additional facility to upgrade methanol into natural gasoline (a gasoline substitute chemical product) using self-developed technology is now at the pilot production stage.

### Coke Oven Gas

China's industrial and commercial activities generated a huge amount of coke oven gas as a by-product of the coal-making and steelmaking process. Similar to coalbed methane, coke oven gas is usually flared off. We have invested in converting this industrial waste into valuable fuel. A plant in Xuzhou, Jiangsu province for converting coke oven gas into LNG through a two-step process is currently under construction. The trial operation is expected to take place in the second quarter of 2016.

### Agricultural and Forestry Waste

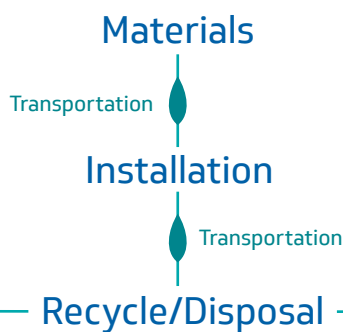
To maximise economic benefits and reduce air pollution associated with the burning of agricultural waste, we developed a new technology that converts agricultural waste into methane for use as fuel. Through a two-step process involving thermal gasification and methanation, agricultural and forestry waste will be converted into natural gas. At the same time, levulinic acid is produced through hydrolysis to be used as a raw material for producing clean fuel additives.





## Case Study 1

## A Study on the Carbon Footprint of Pipe-laying Projects



In 2014-15, we commissioned a study on the carbon footprint of our pipe-laying projects throughout their lifecycle. The results of the study determined that compared to the traditional cut and cover (CC) method used for pipe-laying, the adoption of trenchless approaches, such as pipe ramming (PR), slip lining (SL) and compact pipe (CP), are able to enhance cost effectiveness and reduce the carbon footprint of the process. Towngas will proactively consider incorporating these techniques into future pipe-laying project planning.



## Case Study 2

## Carbon Reduction Competition

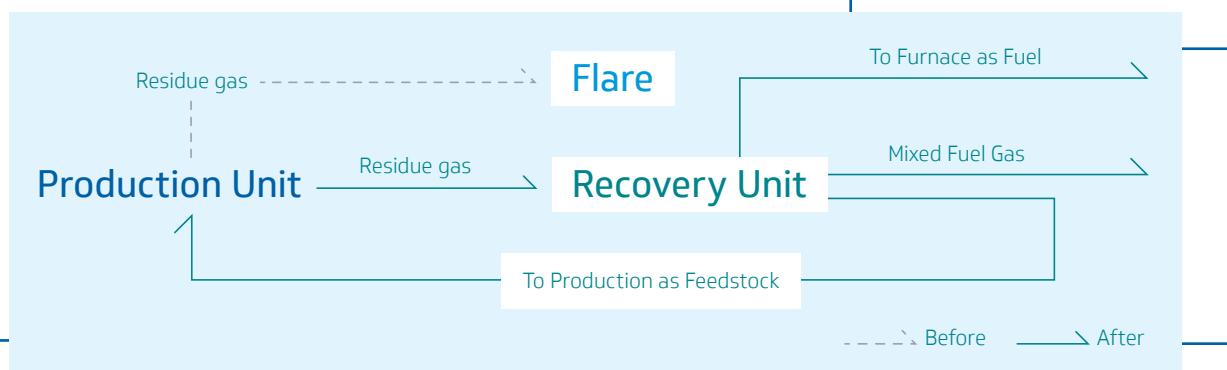
First introduced in 2010, this annual competition is one of the major Towngas initiatives in mainland China aiming to improve environmental performance. In 2015, the competition received 14 submissions, which resulted in annual savings of 29,100 tonnes of carbon emissions. Since its inception, a total of 167 submissions have been received.

The 2015 winner was ECO Coal Chemical Technology (Inner Mongolia) Company Limited, which has installed a system to collect and recover the hydrocarbon (in the gaseous phase) from the residue gas which was originally discharged to the flare system. This hydrocarbon stream, after treatment, is purified to form mixed fuel gas for use. This reduces carbon emissions while increasing production yield.

Annual Economic Benefit

**RMB  
19.6 million**

Annual Carbon Reduction

**18,800 tonnes**



### 6.3 | Clean Production in Hong Kong

Towngas operates two gas production facilities in Ma Tau Kok and Tai Po, which consume energy and water resources and also generate GHG emissions. Therefore, Towngas is continually exploring the impact associated with these operations, and searching for opportunities to alleviate it.

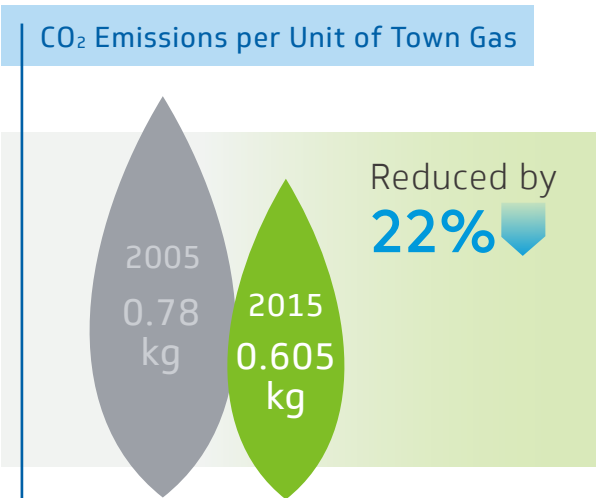


#### Energy and Emissions Management

In 2008, we began endorsing the Carbon Reduction Charter launched by the Hong Kong government and became a Carbon Audit Green Partner. As a Green Partner, we have pledged

to audit our GHG emissions within the Company and formulate implementation plans to support their reduction. We conducted a company-wide carbon audit in 2012 that aligns with the specifications of the ISO 14064-1 standard to quantify and report GHG emissions.

GHG emissions associated with energy consumption have always been a major contributor to our overall GHG portfolio. One of our most recent efforts to enhance energy efficiency was the installation of a heat recovery system at our Tai Po gas production plant. The system recovers and reuses waste heat generated by the gas production processes. In 2015, this system cut carbon emissions by over 2,500 tonnes, resulting in fuel cost savings of around HK\$3 million.



#### Direct and Indirect Greenhouse Gas (GHG) Emissions<sup>1,2</sup>

	2015	2014
Scope 1 - Direct GHG Emissions (tonnes-CO <sub>2</sub> e)	329,731	331,466
Scope 2 - Energy-related Indirect GHG Emissions (tonnes-CO <sub>2</sub> e)	28,114	27,116

1. Standard: GHG Protocol Corporate Standard. Reported Gases: CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs & PFCs. Only gas production and storage facilities' GHG emissions are reported.

2. The emission factors of GHG emissions due to the consumption of electricity are obtained from the sustainability reports of the two local electricity companies, which are released one year prior to our reporting year.



## Water Conservation

Freshwater resources are precious and scarce at both the global and regional level. Given our geographical limitations, Hong Kong faces moderate uncertainty over the future of our freshwater supply. Water is essential to our gas production processes. In order to work towards reducing consumption, we have implemented a range of water-saving measures at our plants. In 2015, the rainwater harvesting system installed at our Tai Po gas production plant collected and treated 3,663 cubic metres of freshwater for on-site use. In addition, a reverse osmosis water treatment facility at our Tai Po gas production plant treated and saved 112,159 cubic metres of water as compared to the previous water treatment facility.

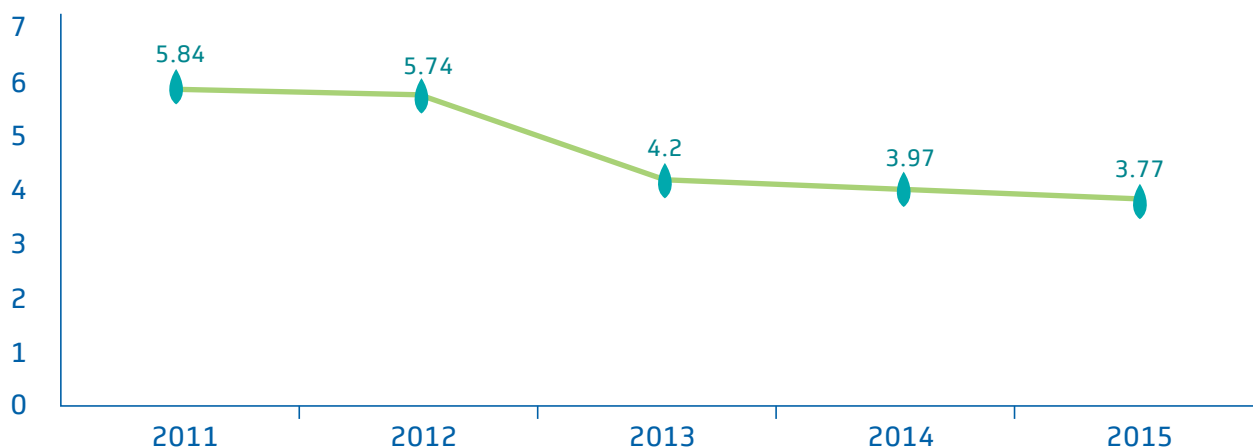
## Effluent and Waste

To safeguard public health and the environment, all effluent generated at our gas production plants is properly treated to comply with the existing regulatory effluent discharge standards. During the year, no significant spills of effluent were reported.

Towngas has established strict procedures to handle waste generated during the production process. These procedures ensure that regulatory requirements are properly communicated to the persons responsible for the operations, and encourage our employees to handle waste according to the “5Rs” principle – Replace, Reduce, Reuse, Recover and Recycle. Major types of materials collected for recycling or reuse include metal drums, spent catalysts, plastic chemical drums and used polyethylene pipes. Chemical waste is handled by a waste collector licensed by the Environmental Protection Department, in compliance with regulatory requirements.

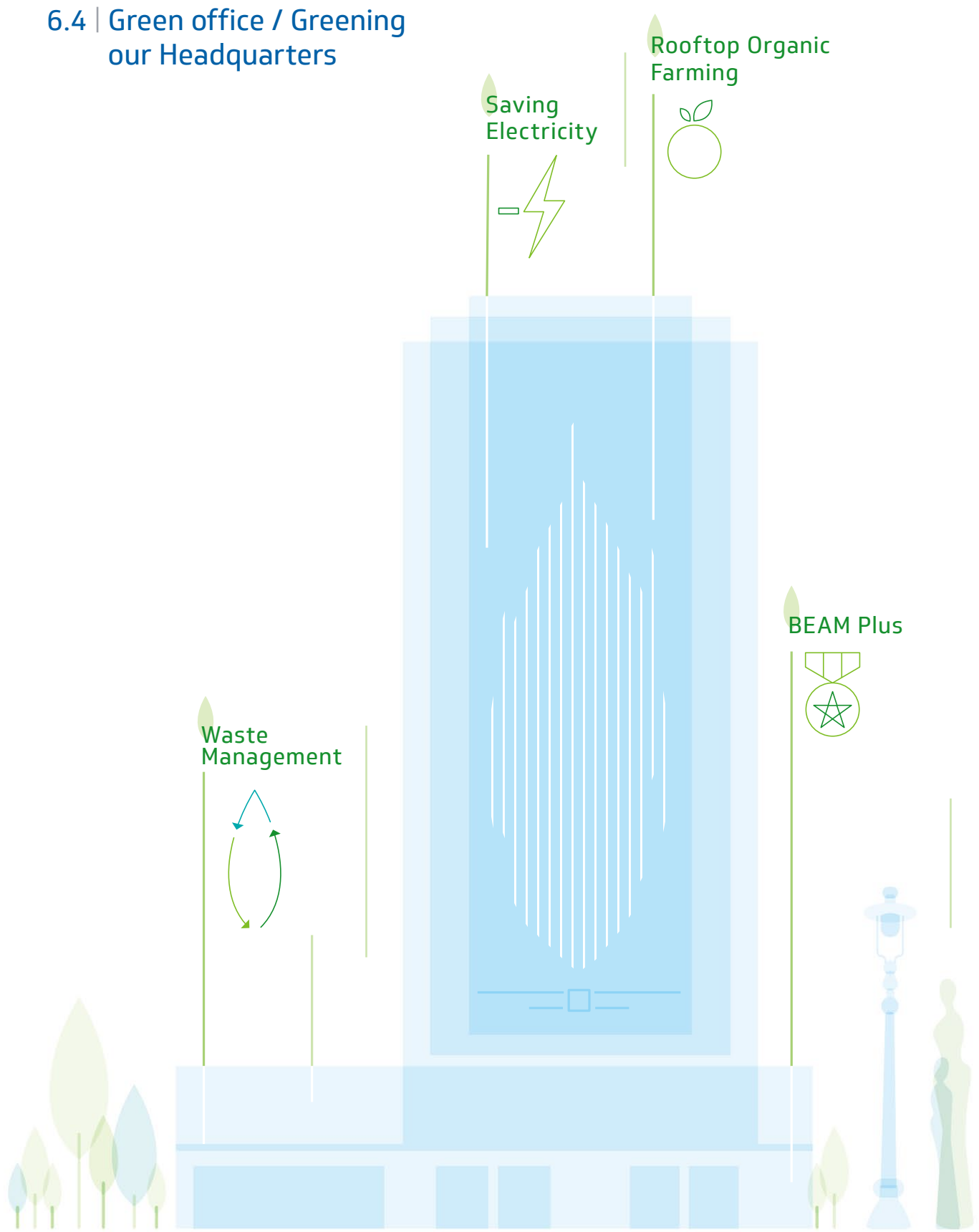
## Wastewater Discharge at Tai Po Gas Production Plant

Cubic Metres per Million  
MJ of Town Gas



For a summary of the data regarding our environmental performance, please refer to the Chapter 9 – Key statistics.

6.4 | Green office / Greening our Headquarters





Though the environmental footprint of our office operations makes up a comparatively small part of our overall footprint, the greening of our headquarters is a significant commitment to conserving resources, as well as a wider strategy of promoting a green company culture.

### BEAM Plus Final Platinum Rating Achieved in 2015

After implementing various technological measures, awareness initiatives and audits over the years, our headquarters in North Point received a final Platinum rating under the Building Environmental Assessment Method (BEAM) Plus Existing Buildings V1.2 certification scheme in 2015. Our headquarters is the first non-residential building in Hong Kong to receive this honour.



hereby certifies that 特此證明

#### Towngas Headquarters

363 Java Road, North Point, Hong Kong

香港中華煤氣有限公司總部  
香港北角渣華道363號

has achieved the following  
Final Rating of BEAM Plus V1.2 for EB:  
獲得以下綠建環評1.2版(既有建築)最終評級:

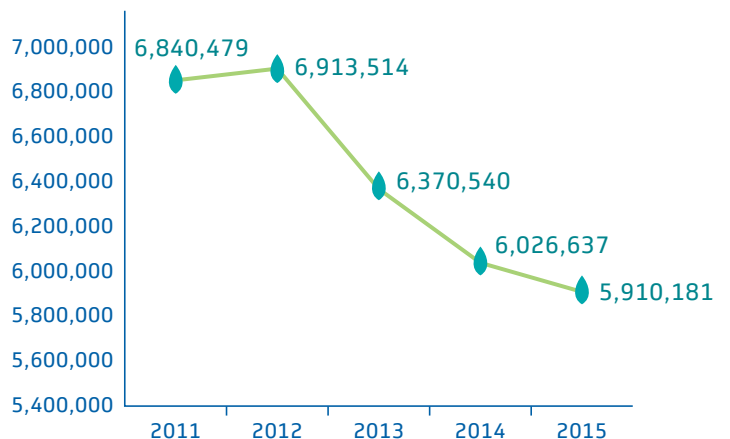


*Conrad Wong*  
Ir Conrad WONG Tin-cheung, BBS, JP  
Chairman  
Hong Kong Green Building Council Limited  
香港綠色建築議會有限公司 主席  
黃天祥 工程師 副建築師 建築師

### Saving Electricity

Towngas makes every effort to reduce our consumption of electricity. We completed a two-phase programme to upgrade our rooftop chiller plant systems to high energy efficiency oil-free variable speed water-cooled chiller. We also replaced the existing lighting in phases, upgrading to T5 light fixtures equipped with sensors, and installed variable-speed air handling units controlled by CO<sub>2</sub> sensors. These initiatives resulted in a 15% reduction in the building's electricity consumption between 2012 and 2015. Significant financial benefits were also achieved through these upgrades, with company electricity bills indicating savings of HK\$1,220,000 at 1,000,000 kWh.

### Electricity Consumption at Towngas Headquarters (kWh)



The energy-related indirect GHG emissions of our North Point Headquarters have been reduced by 15% since 2012, resulting in Towngas earning the CarbonCare® Label in 2015.

In 2015, we conducted a waste audit at our headquarters in Hong Kong to develop a strategic plan for waste reduction at the corporate level. The objectives of the audit were to:

- identify waste composition;
- formulate an action plan for waste reduction;
- engage staff and get them involved in waste reduction; and
- evaluate the potential impact of a waste disposal charging scheme on our premises.

This pilot project served as a reference point for our future waste management planning. We considered extending this practice to other operational areas.

## Waste Management

Towngas strives to reduce the burden that our daily operations place on Hong Kong's landfills. New initiatives involving waste avoidance, reduction and/or recycling have been designed and brought to life every year. Towngas has participated in the reputable Wastewi\$e Scheme organised by the Environmental Campaign Committee since 2001. In 2015 we achieved the Wastewi\$e certificate for the 14th consecutive cycle. We received the Silver Award from the Yan Oi Tong Plastic Recycling Partnership Scheme 2014/15. Currently, over 18 types of materials, including rechargeable batteries, helmets and abandoned gas meters are sorted and collected for recycling or reuse in our business operations.



## Rooftop Organic Farming

To promote the concept of green roofs and organic farming, Towngas launched a pilot farming activity on the roof of our headquarters for our staff to experience the pleasures of healthier and low carbon living. Green roofs in general help reduce the urban heat island effect and improve the ambient air quality. Farming also has the added benefit of allowing staff to take a stress-relieving break from work.

## 6.5 | Green Partnerships

In 2015, Towngas continued to develop partnerships with green groups in Hong Kong. We supported and participated in a series of programmes, including Green Power's My 4 Steps to Low Carbon Living programme, WWF's annual Earth Hour initiative, Greeners Action's Lai See Packet Reuse and Recycle Programme, Green Sense's No Air-Con Night, Green Council's Hong Kong Green Day, and others.







## Cherish Food Reward Scheme

To encourage people in Hong Kong people to cherish food and promote food waste reduction, Towngas and Friends of the Earth (HK) jointly launched the Cherish Food Reward Scheme on 16 October 2015, which is World Food Day. The scheme was supported by 140 local restaurants, including our Flame



restaurant, which offered cash rebates, discounts, free drinks, free desserts, gifts and other incentives to customers who “cherish” food and thus reduce food waste.

## Green Leaders Bloc Programme

Working with the Conservancy Association, we held the fifth annual Green Leaders Bloc programme in 2015, which nurtures students to become future environmental leaders through a series of training programmes. Participants also planned a series of campaigns to promote green living whilst raising awareness of carbon reduction.



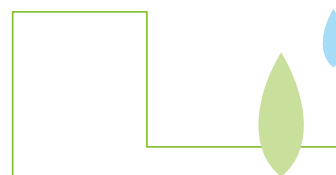
## Leftover Cooking Contest

In order to encourage the public to cherish food, we also sponsored Greeners Action's Leftover Cooking Contest to promote using leftovers as ingredients for cooking.



## Experience Sharing with Green Groups

On 31 July 2015, we invited representatives from 11 green organisations to a seminar at our headquarters to introduce our new eco-friendly technologies. We also discussed the development of gas appliances for the catering industry in addition to our latest environmental initiatives and experiences in environmental management. Visitors were also given a tour of the Towngas Green Kitchen, which displays a variety of energy-efficient gas appliances and automated commercial kitchen equipment.



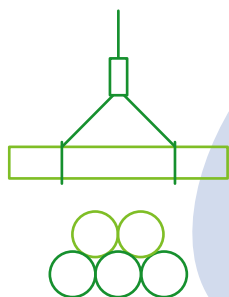
# 7 SAFETY PERFORMANCE

Safety is always our top priority, underpinning everything we do. As an energy company, our intricate operations present various safety issues, such as safety risks associated with our working environment, gas infrastructure, as well as the appliances sold to our customers. In our pursuit of excellence in safety performance, we have a health and safety system in place to systematically eliminate and better control all safety risks. During the year, we witnessed several improvements in our overall safety operations and our activities satisfied all relevant health and safety legislative requirements and were not subject to any warnings from regulatory authorities.

## Key Safety Performance 2015 (Hong Kong)

Pipelines  
Surveyed

**6,715 km**



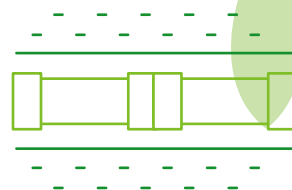
Number of Network  
Inspections

**178,336**



Number of Trench  
Inspections (sites)

**14,044**



Number of  
Reportable  
Accidents

**15**



Accident  
Frequency Rate

**0.29**



In-house Safety  
Training Hours

**17,558**





We have designed  
Laparobot to detect  
and rectify abnormalities  
in underground pipelines,  
eliminating the need to  
dig up pavements.



## Network Safety Performance 2015 (Hong Kong)

Area	Achievement	Target
Gas Supply Reliability	99.992%	>99.99%
Gas Incidents Reported by the Public per 10 km of Gas Pipes	0.154	<0.18
Third Party Damage Incidents	7	<11
Emergency Team Average Arrival Time within 25 minutes	Achieved	

### Stakeholder Dialogue

#### Comment from the Professional Body

Collaborating with Towngas, The Hong Kong Polytechnic University (PolyU) developed a Rapid Demountable Platform (RDP) and conducted a joint trial of the platform in 2015. Unlike the conventional bamboo truss-out scaffolding, which relies on the installation of a few anchor bolts fixed to an external wall, the RDP is a safe, demountable temporary working platform which can be safely installed and demounted indoors within 10 minutes. In view of the safety risks associated with repair and maintenance works on external walls of high-rise buildings, Towngas is currently exploring with us the possibility of deploying the RDP for these activities in order to reduce safety risks for its workers.

From our perspective, Towngas has acted proactively to improve its sustainability performance, including reducing company accident rates. In terms of communication with stakeholders, its sustainability reports provide comprehensive information and make reference to the Company's previous performance. The report serves as a useful communication platform to allow stakeholders to gain a thorough understanding of the sustainability performance of Towngas.

**Prof Albert P C Chan**  
 Head and Chair Professor  
 Department of Building and Real Estate  
 The Hong Kong Polytechnic University

#### Our Response

We strive to incorporate sustainability elements into our activities and projects for the benefit of our employees as well as the community. We demonstrate fruitful collaboration with PolyU, as our need to enhance safety performance is effectively addressed by the solution we jointly developed. We look forward to further opportunities to work with PolyU and other professional bodies, in order to continuously enhance our sustainability performance.

## Achievements and Targets

The targets and corresponding achievements are reviewed every year. All targets regarding our safety performance set for 2015 were achieved.

Achievements in 2015	Targets for 2016	Medium Term Targets (Two to Three Years)
<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 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 ECO mainland gas refilling stations.</li> <li>To conduct the third safety audit, with scoring, of ECO mainland chemical plants.</li> </ul>	<ul style="list-style-type: none"> <li>To further promote safety awareness and a safety culture at ECO mainland projects through education, training and experience-sharing visits.</li> <li>To further enhance the safety performance of 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>	

## 7.1 | Our Approach

Building on our solid experience in enhancing safety performance and quality of service, in 2015 we introduced the concept of Total Safety Management (TSM) at the corporate level. Towngas TSM consists of Occupational Safety and Health (OSH), Emergency Preparedness, Process Safety, Corporate Wellness, the International Safe Workplace Programme (ISWP) and other health and safety programmes. This holistic management approach allows us to define our safety direction in line with our organisational values, standards and guidelines, while emphasising proactive long-term thinking. It also lays down a framework for the design and implementation of various events and activities for our employees and contractors to enhance their awareness and knowledge in related aspects.

Management support and employee participation are essential to ensuring an effective and efficient safety management system. We developed tailor-made programmes and activities for our employees and contractors and provided effective communication channels to achieve continual improvement. For instance, we established a Health, Safety and Environment (HSE)

Resource Centre with interactive elements, such as a fire hose reel model, fall protection equipment, etc. To reduce accidents caused by human error, we also developed the Behavioural-based Safety Observation Programme and the Pointing and Calling Programme. Furthermore, we organised a series of health and safety activities for our colleagues and contractors, such as the HSE Day, HSE Quiz, Contractor OSH Forum and a Safe Driving Competition.

In our commitment to preventing accidents, we apply a high-level hierarchy of control through research and development. Our Laparobot, Riser Inspection Quadcopter and Smart Pipe are examples of innovative projects that eliminate high-risk work and enhance both occupational safety and gas safety standards.





## 7.2 | Occupational Health and Safety

As a responsible employer, Towngas highly concerns the well-being of our employees and contractors. Towngas strives to develop and operate our facilities in ways that minimise workplace hazards, which could impair the health and well-being of workers. During the year, we were presented with the Gold Award of Safety Management System Award – Other Industries from Occupational Safety and Health Council (OSHC) in recognition of our effort to improve our occupational safety and health performance over the years.

Since 2005, our approach to managing safety and operational risks in the workplace has primarily been built on a safety management system under the framework of the OHSAS 18001 standard. In terms of external



benchmarking, Towngas was the first utility company in Hong Kong to be designated as an ISWP under the framework of the World Health Organisation's Safety Community in 2011. The seven ISWP indicators specified in this programme strengthen our safety practices and maintain a safe workplace for employees.

### Key Occupational Health and Safety Statistics (Hong Kong)

	2015	2014	2013	2012	2011
<b>Number of Accidents – All Industrial Injuries</b>	19	14	15	10	10
<b>Accident Frequency Rate</b>	0.29	0.22	0.24	0.19	0.19
<b>Number of Reportable Accidents</b>	15	12	12	7	9
<b>Accident Incidence Rate</b>	5.3	4.4	4.9	2.5	2.9
<b>Number of Industrial Injury Person-days Lost</b>	596	132	194	111	160

#### Remarks:

1. Accident – an accident that results in incapacity for 1 or more days
2. Accident frequency rate – number of accidents per 100,000 person-hours worked
3. Reportable accident – an accident that results in incapacity for more than 3 days
4. Accident incidence rate – number of reportable accidents per 1,000 employees
5. Contractor employees are excluded





### Health, Safety and Environment (HSE) Day

Our 2015 HSE day was held for employees, contractors, and their families on 28 November to provide a valuable opportunity to enhance their knowledge and awareness of environmental protection, occupational safety and fire safety. Interesting HSE programmes, such as a safety, environment and fire competition, were organised to draw interest and encourage participation. In addition to setting up booths, exhibition vehicles, and lively displays with educational elements, the Corporate HSE award presentation ceremony was also held to recognise outstanding HSE performance of our colleagues.

### Occupational Health Campaign

Apart from safety, Towngas also places great importance on our employees' health. In 2015, we organised the Occupational Health Campaign which comprised of various workshops and seminars including topics such as "Healthy Eating at work", "Musculoskeletal Disorders" and "Health & Safety on Display Screen Equipment". Physiologists, a dietician and a Chinese medicine practitioner were also invited to speak at one of the seminars to deliver professional health advice to attendees.

## 7.3 | Gas Infrastructure Safety

Towngas has worked hard to ensure our gas infrastructure to comply with the highest safety standards. We have invested an increasing amount of capital in improving our piped gas infrastructure and network in Hong Kong to meet the energy needs of businesses and households. To maintain a safe and reliable supply of town gas, we continually evaluate our processes and safety procedures throughout our operations.

In 2015, the modification of our Ma Tau Kok plant was completed, with natural gas now replacing naphtha as the plant's feedstock and fuel for town gas production. Along with the modification, the site's oldest gasholder was demolished to reduce potential risk.

### Asset Management

"Process safety" and "asset integrity" can be defined as the ability of our assets to perform their required functions efficiently and effectively whilst protecting life and maintaining a reliable rate of gas supply. This year we upgraded our asset management system in accordance with ISO 55001 standards, bringing the Company in line with the latest international trends. This step was one of a number of improvements we made to safeguard our assets, and to ensure that the associated performance, risks and costs are well managed over the lifecycle of these assets.



All our plants, equipment, networks and processes are regulated by the Electrical and Mechanical Services Department (EMSD) of the Hong Kong SAR government. During the year, Towngas undertook a review of our facilities utilisation through a mutually-agreed strategic plan with the EMSD, which included a preventive maintenance index to ensure a high standard of safety. We undertook a Process Hazard Analysis to examine the potential causes and impact of incidents and critical controls, allowing us to manage the risks associated with large-scale projects or comprehensive modification works. As always, we continued to enforce stringent international guidelines. Our gas production department, for example, adopted the six-stage Hazard Studies approach to identify and document critical hazards and develop proper preventive and mitigating control measures to minimise the risk level of major accidents.


Additionally, our sophisticated Supervisory Control and Data Acquisition (SCADA) system continued to monitor and control over 3,500 real-time telemetry points, ensuring that our entire network and every strategic pressure-regulating station operated smoothly. In the event of an incident, the use of remote control, emergency logging and geographical information systems would help track down and address any emergencies more quickly and efficiently.

### Network Safety Inspections

In order to ensure the overall safety of our 3,500-km pipeline network, Towngas pays particular attention to strengthening our trench inspection measures and engaging in more rigorous leakage surveys, while regularly upgrading any ageing pipes.

### Number of Leakage and Pipeline Surveys

Type of Pipelines	Frequency of Leakage Surveys
<b>Transmission Pipeline</b>	
All HP & IPB mains	At least once a year
<b>Distribution Pipeline</b>	
PE or steel pipes over or enclosed within structures	At least twice 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
Others	At least once a year





## Developing New Technologies

We have also developed new technologies to assist in inspection and maintenance work, further reducing the exposure of our employees to hazardous conditions. We designed Laparobots to inspect, detect and rectify any abnormalities of our underground pipes network in Hong Kong. By removing any obstacle in the pipeline to facilitate our maintenance and replacement works, they reduce the need for large-scale excavation. These new developments illustrate our commitment to excellent safety and environmental performance, which is also reflected in this year's record-low occurrences of third-party damage incidents and publicly-reported leakages.

### Mainland China Case Study 1

#### Safety Monitoring and Surveillance Programme for Mainland Construction Sites



In 2015, we put extra effort into reinforcing the importance of the role of leaders in instilling a company-wide safety culture. Under the General Manager Monthly Safety and Risk Management Inspection Programme, safety inspections by senior management covered the Southwest

Region, Anhui and Jiangxi Region, and the Northeast Region of mainland China. This wide geographical reach has further improved the Group's safety performance at the national level.

A safety monitoring and surveillance programme has been implemented at ECO chemical plant construction sites on the mainland. CCTV and other surveillance equipment have been installed in the construction sites and on-site safety supervisors have been assigned to perform field validations of safety measures at an observation kiosk. Any abnormalities or safety-related incidents are reported to management to ensure that Group safety practices are effectively implemented and continuous safety improvements achieved.

## Mainland China Case Study 2

## Bowtie Analysis (Safety Barrier Analysis)



In 2015, ECO's management introduced a bowtie analysis to the Company, allowing management to clearly identify the potential risks arising at our chemical plants' different operational stages and to set up barriers to mitigate these risks by systematically managing processes, procedures and behaviours. Bowtie analysis training sessions were organised for all

chemical plant personnel in order to enhance frontline workers' awareness and knowledge of the top risk-related events, threats and consequences that could occur in the chemical plants.

Our top management and the ECO HSE committee oversee ECO's risk management policies and safety practices, which allows on-going top-level evaluation of the adequacy and effectiveness of safety barriers in our ECO chemical business. Findings from the bowtie analysis will be regularly reviewed by top management to ensure that the ECO safety management system has mapped and implemented all barriers at the plants. We will continue to improve our safety performance and maintain our consistent drive towards achieving a world-class standard.

## Mainland China Case Study 3

## TGT Safety Management System (SMS) Enhancement

Aiming to reinforce the safety management standards of TGT and its joint ventures, a Safety Management System enhancement was carried out in 2015, which covered all of TGT's new projects and existing data centres in mainland China. During the system enhancement, three sets of guidelines were established according to our corporate HSE policy and procedures.

- Data Centre Health and Safety Management System;
- HSE Management System for Network Projects; and
- HSE Management System for Construction Projects.

To effectively implement the system, a series of workshops were organised to brief the relevant parties on the proposed changes and actions required.

## 7.4 | Emergency Preparedness

Our team members are trained to uphold the safety of our services. As such, they are well-prepared to handle any emergencies that may occur. In order to minimise vulnerability and risk to local communities from potential impacts arising from our operations.

### Training Our Staff

Towngas fully understands the importance of providing a prompt and effective response to emergency situations. We have devised a comprehensive emergency plan that offers detailed guidelines and procedures to help employees respond to any such incidents. The plan provides systematic approaches to dealing with disasters of different natures, such as fire hazards, major spills or leakages, physical damage to the gas infrastructure, severe accidents to personnel, civil disturbances, bomb threats, environmental pollution and others. The following three-tier approach illustrates how Towngas is eminently prepared to allocate sufficient resources to handle any emergency that may arise.



#### Corporate Emergency Plan

Senior management commands the deployment of company resources, seeks assistance from government authorities and handles the media

#### Departmental Emergency Plan

Plant managers and key emergency personnel outline general actions to take during emergency situations

#### Specific Emergency Procedures

Frontline actions tackle specific incidents

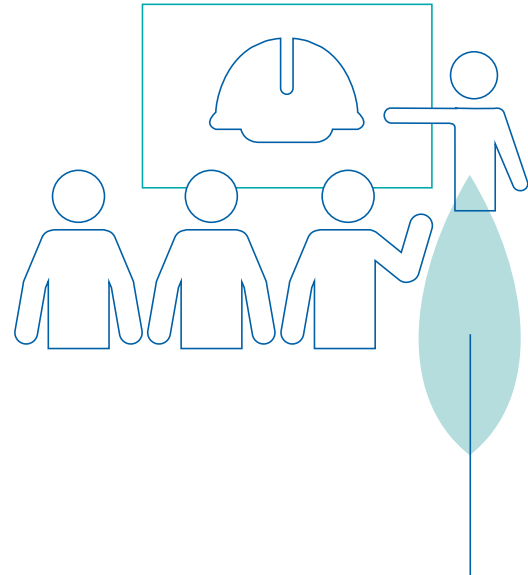


## Working with External Parties

Towngas values continuous communication and effective coordination among our internal functional units. We believe it is of equal importance to work together with external stakeholders to collectively handle any incidents. Regular drills and exercises are conducted with government departments to practice and evaluate the Company's emergency handling procedures. We have also worked with representatives from academia via our corporate emergency table-top exercise and received useful advice and feedback from them. By collaborating with internal and external stakeholders, our skills and techniques for handling emergency situations have been strengthened.

### Corporate Emergency Table-top Exercise

In 2015, we organised a table-top exercise with an emergency scenario based on extreme weather conditions due to climate change. Our top management, supervisors, and frontline staff, alongside external observers, convened to discuss emergency solutions. The recommendations gathered from the exercise have helped Towngas to be better prepared for several possible extreme conditions that climate change may induce.



## 7.5 | Customer Safety

Towngas provides our customers with safe and convenient appliances, coupled with comprehensive after-sales services. We strive to realise a “safe-to-use” concept for our customers, and we explore different means to disseminate up-to-date safety information and messages that enhance customer safety awareness. From installation to maintenance and warranties to inspections, we strive to respond promptly to all our customers’ needs during the product lifecycle.

Towngas has a stringent quality control mechanism in place to test incoming appliances, and compliance checks are conducted to ensure conformity to specifications and quality requirements. All our residential gas appliances conform to the relevant international or national standards, and the Code of Practice GU05 (Approval of Domestic Gas Appliances of the HKSAR). To better serve local markets, we have launched our own appliance brands, “TGC” and “SIMPA” in Hong Kong, and “Bauhinia” on the mainland.

### Modern Safety Features

In addition to meeting all required safety standards, our products are safe and user-friendly and equipped with electronic ignition and flame failure devices. If any flame irregularities are detected, the gas will be automatically cut off without causing damage to the stove, minimising the occurrence of accidents.



Energy-efficient Home Appliances

Professional Installation

Prompt After-sales Services

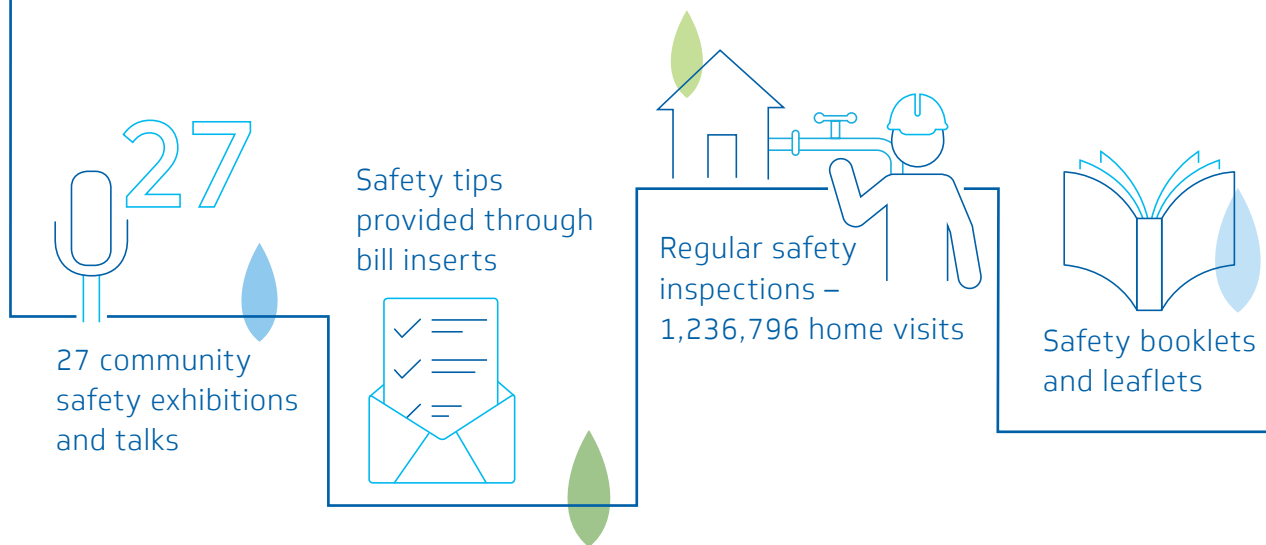
Proactive Regular Inspections



Mega Flame Built-in Hob Series is equipped with timer function.



## 2015 Safety Promotion



### Celebrating the 20th Anniversary of Regular Safety Inspections (RSI)

Striving for continuous improvement over the past 20 years, our unique safety inspection services, conducted over an 18-month cycle, have proved to be a great success. To celebrate this important milestone, we organised the “20th Anniversary of RSI and Green Fun Fair for Agents” at Kam Tin Country Club on 8 November 2015. More than 1,000 Towngas staff and contractors and their families participated in the celebrations.





# SOCIAL PERFORMANCE

We consider social responsibility indispensable to our business as we strive to establish a harmonious relationship with our employees, customers and the community at large. In this regard, we demonstrate strong corporate citizenship through 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.

## Key Social Performance 2015 (Hong Kong)



**256**

voluntary activities  
in which Towngas  
volunteers  
participated

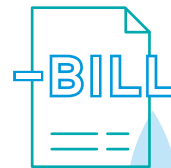
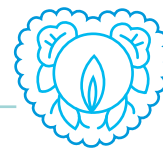
**859**

employees  
registered  
for voluntary  
services



**100,000**

mooncakes  
given



**46,745**

households  
benefited from  
all Towngas  
Concession  
Schemes



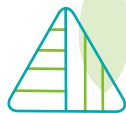
**46,130**

soup servings  
distributed



**179**

Towngas  
Customer  
Volunteer  
Team  
members



**330,000**

rice dumplings  
given



**50,000**

umbrellas  
distributed



**139**

children who  
attended Cooking  
for Fun English  
classes



**487,057**

people  
benefited from  
our volunteer  
services



**111**

programmes supported  
through active  
participation, donation  
or in-kind sponsorship



**75,369**

voluntary service  
hours (including  
employees and  
customers)



The Towngas Volunteer Service Team has actively participated in voluntary services including delivering long boiled soup to elderly people who live alone.

Stakeholder Dialogue

Comment from Business Partner

Towngas and Viessmann have a close business partnership. Our company supplies Towngas with large-scale heating and cooling equipment, such as boilers. In its selection of business partners, Towngas puts a strong emphasis on safety and energy efficiency. Over the years, Towngas worked with us to promote efficient heating equipment in Hong Kong, aiming to reduce the carbon footprint of the entire Towngas supply chain.

Towngas also makes use of our strong technical expertise to upskill staff and other suppliers. For instance, my colleagues and I were often invited to deliver technical talks to the technicians and trainees of Towngas. Our collaborations ensure customers receive high quality services.

Looking ahead, we would like to hear more about future plans of Towngas to support the adoption of energy-efficient equipment in Hong Kong.

**Joseph W K Leung**  
Deputy General Manager  
Viessmann China Ltd.

Our Response

We leverage our business partners' strong technical expertise to improve the performance of our products and build the capacity for continuous improvement in the industry, thus contributing to the community at large. We look forward to developing close and meaningful partnerships with our business partners.

Achievements and Targets

The targets and corresponding achievements are reviewed every year. All targets regarding our social performance set for 2015 were achieved.

Achievements in 2015

Targets for 2016

Medium Term Targets  
(Two to Three Years)

Employee

Career Development

- 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.
- To continue working on career paths for different jobs and strengthen other initiatives conducive to the attraction and retention of talent.



## Achievements in 2015

## Targets for 2016

Medium Term Targets  
(Two to Three Years)

## Employee

## Knowledge Management

- |  |  |   |
|--|--|---|
| <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> |
|--|--|---|

## Learning and Development (L&amp;D)

- |  |  |   |
|--|--|---|
| <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 the 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> |
|--|--|---|

## Talent Development

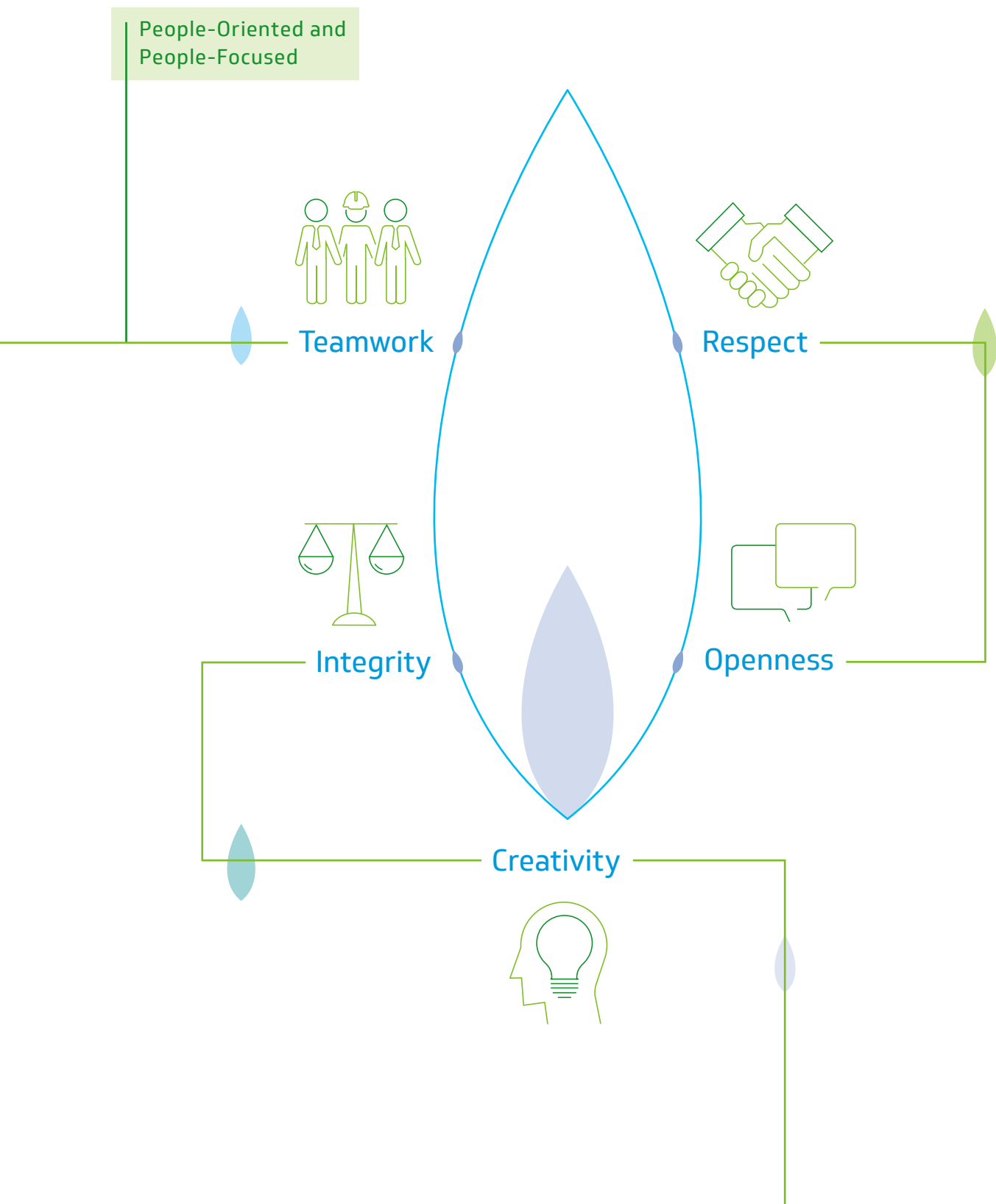
- |  |  |   |
|--|--|---|
| <ul style="list-style-type: none"> <li>• A number of workshops, such as Change Management and Business Strategy Simulation, were organised as a continuation of the leadership development programmes – TLC+.</li> </ul> | <ul style="list-style-type: none"> <li>• To launch recruitment 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 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 partnerships 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 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>	



## 8.1 | Our Approach

As a responsible corporate citizen, we are dedicated to the well-being and development of our employees, to protecting the safety and interests of our customers, and to promoting harmony and community spirit in the areas where we operate. Our sustainability approach is both people-oriented and people-focused.





## 8.2 | Our People

Our employees are the backbone of Towngas. Our people have supported the steady and healthy development of the organisation. We value our people, and continue to take steps to attract and retain professional talents to enable sustainable growth.

### Key Employee Statistics 2015 (Hong Kong)





## Employment Practices

Towngas has established comprehensive employment policies, procedures and guidelines in order to provide a safe and caring workplace to our employees. To safeguard both the human rights and the labour benefits of our employees, we resolutely adhere to all applicable laws and regulations in the areas in which we operate. The use of children or forced labour is strictly prohibited throughout all our operations.

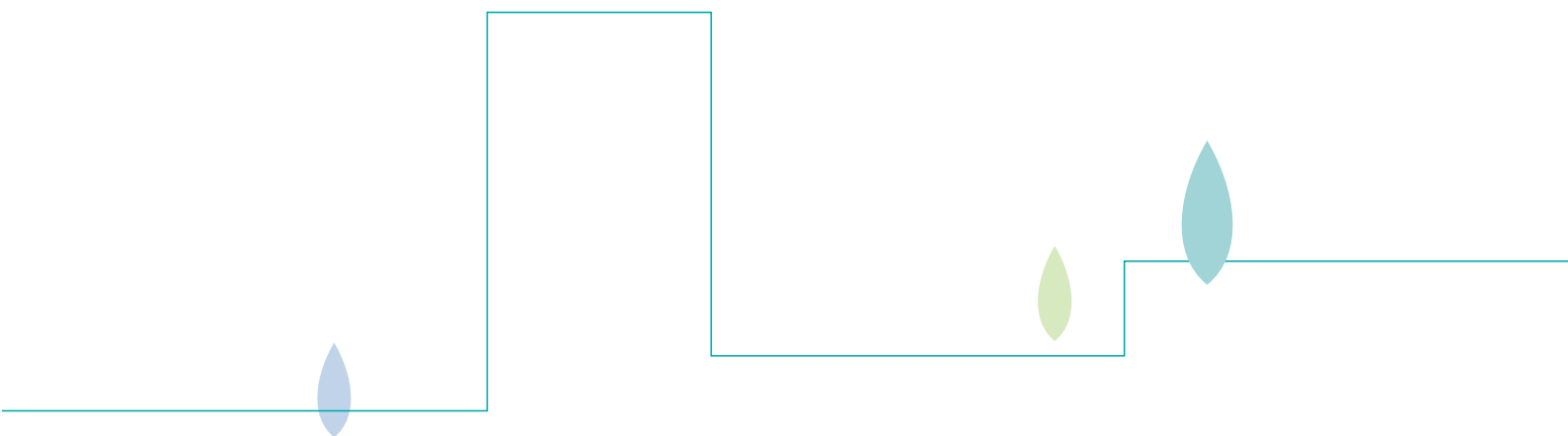
## Equal Opportunity and Diversity

Towngas is committed to creating, promoting and maintaining an environment for our staff that offers equality of opportunity by eliminating all kinds of discrimination and harassment. In Hong Kong, there is no regulatory requirement concerning collective bargaining. At Towngas, collective bargaining did not take place, nor was an agreement achieved. We engage in meaningful and regular dialogue with our staff through various internal communication channels.

All staff members are required to observe a high level of ethical standards and comply with professional codes of conduct. Any breach of these standards or codes of conduct is handled according to established procedures. No substantial cases of non-compliance with regard to our employment practices were recorded during the reporting period.

## Remuneration

To encourage the best performance of our staff members, Towngas has adopted remuneration packages that are well above the local minimum requirements and deemed competitive in the market. A number of benefits are available to our full-time staff members, including medical insurance, a dental scheme, group life insurance, a gas allowance, an education allowance, and performance-based bonuses and incentives. Our North Point headquarters also offers clinical medical services to staff, including those employed on temporary and part-time terms. Female and male employees enjoy equal remuneration, both in principle and in practice.



## Staff Development

We regard the development of our workforce as one of our most important group sustainability strategies. We have established procedures for staff performance appraisals, with evaluations for different levels of staff carried out on an annual basis. These appraisals aim to encourage individual performance and enhance collective competence.

During the year, we continued to provide subsidies, where applicable, to support staff members as they attended educational courses, academic programmes, and other external skills training opportunities.

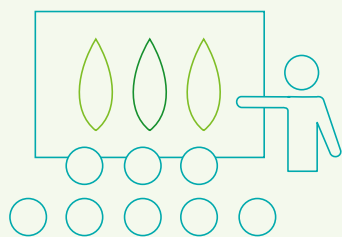
In view of our management theme – “Expanding New Horizons” – and the predicted upcoming growth in our business, a comprehensive development system has been designed for employees who demonstrate potential for career advancement. The success of this system has won us public recognition, including being designated the “Manpower Developer” by the Employees Retaining Board.

The third edition of the Towngas Leadership programme (TLC+), which commenced in 2014 to develop high potential middle management leaders, was in full swing in the form of workshops, seminars, mentoring, business projects and company visits.

To reinforce a standardised management culture in the Group, Towngas has developed standardised training and development programmes for our managers and supervisory staff to enhance their leadership competencies. We also encourage the sharing of good practices and the development of joint projects in both technical and management aspects among different business sectors and locations to ensure the Towngas standards and culture are implemented. Our Total Quality Management (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.

A new e-platform, which offers convenient access through mobile devices, has also been added to our training programmes. Starting from mid-2015, employees have been able to take part in on-the-spot quizzes, online course evaluations and post-course discussions by using their mobile phones. Moreover, they can also learn and refresh knowledge at their own pace.

In 2015



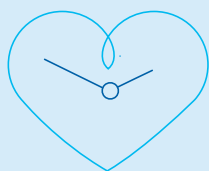
**9,213**  
**non-technical**  
**training hours**

undertaken by employees  
at all levels (Hong Kong)

**3,823 hours**

in management development  
programmes (Hong Kong)

By the end of 2015



**200,011 training hours**  
were provided through TEA in  
Hong Kong and mainland China.

### Towngas Engineering Academy

Established in 2009, Towngas Engineering Academy (TEA) aims to organise and provide structured and professional technical training to our employees in Hong Kong and mainland China so that they can acquire the academic and professional qualifications for advancement.

The Group is now the first and only gas company in mainland China accredited by the Hong Kong Institute of Engineers and the Institution of Gas Engineers and Managers to

organise dedicated training programmes for gas engineers on the mainland. Upon completing the programmes and accumulating sufficient working experience, trainees will be fast tracked to register as chartered engineers. The first cohort of trainees completed the programme in 2015.

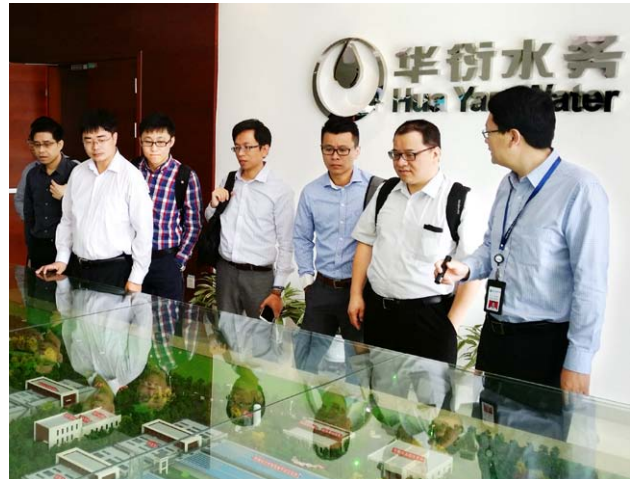
TEA also put tremendous effort in implementing the Super Quality Service Programme (SQS) and promoting corporate innovation culture. We set up the Towngas Hall of Innovation exhibition at our Hong Kong headquarters to showcase innovative projects that have led to significant improvements in workflow, safety and productivity. These exhibits provide inspiration while recognising the talent and efforts of their inventors. We also issued a periodical, Innovation Headlines, featuring creative ideas and practices to encourage employees to approach their work with an open mind and to think outside the box. TEA also utilised social media channels to encourage colleagues to share and collaborate. "TG's World of Innovation" is a WeChat platform connecting our colleagues in Hong Kong and the mainland China.

### Towngas Engineering Academy Training in 2015

	Training Man-hours	Employees Trained
Continuing Professional Development Seminars	2,322	1,937
Technical Training (Hong Kong)	53,212	4,503
Technical Training (mainland China)	144,477	6,533

### Graduate Trainees Programme

Towngas first inaugurated the Graduate Trainees (GTs) Programme in Hong Kong in 1982. Since then, this programme has become an important platform for attracting young talents to join Towngas, helping us to build the sustainability of our leadership. In 2015, a total of 20 new graduates were recruited from Hong Kong and overseas, in addition to another 13 graduates hired in mainland China. Aside from obtaining direct experience by working with different functional units of the Company, the GTs were able to enhance their skills and competencies through various activities, including workshops such as influencing skills and project presentation, cross-learning events with trainees from all locations, visits to company operations in different sites and participation in community activities and employee events.



### Executive Development Programme

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. Moreover, a new session on Innovation in Management Practices was added to the one-week programme this year, while other workshops, with topics like strategic thinking, and various business strategy simulations, were also introduced. In line with the management initiative of “Growth = Innovation x Implementation”, a two-way workshop on “Change Leadership” was launched to encourage a positive and open mindset among senior management.

### Mobility Programme

With more employees in Hong Kong taking up diverse assignments supporting new projects and initiatives in mainland China, our Mobility Programme has seen an increasing number of participants since late 2014. By the end of 2015, more than 20 employees had joined the programme, either embarking on or completing assignments in mainland China.



## Employee Wellness

Towngas cares deeply about the health, safety and well-being of our employees. Throughout the year, a wide range of activities and leisure events were organised to promote a balanced lifestyle and boost staff morale.

### The Fun Living Series

To fill our staff and their families with positive energy, Towngas continued the Fun Living Series for a third consecutive year. In 2015, over 500 participants engaged in numerous activities designed to foster positive thinking and attitudes.

Employees were invited to attend a one-day “Health Day” event, during which they learned about dental health and underwent simple health tests on blood pressure, blood glucose and cholesterol. Moreover, an array of sales booths were set up to promote organic vegetables, natural snacks and other health-related products.



A number of seminars were also held on the topics of parenting, happy marriage and taking care of the elderly, providing our employees with useful tools and tips to build harmonious bonds with their families. The Garden Therapy workshop was also organised for staff to relax during their lunch breaks.

Towngas also encouraged our staff to participate in internal and external sports and recreational events. In 2015, they joined the Towngas SRC Cup Distance Run Competition, Towngas Rinnai Bowling Day, MTR Hong Kong Race Walking, the Tai Po District Dragon Boat Race, the Standard Chartered Marathon, etc.

In mainland China, we reinforced and promoted our culture of caring for employees by organising a series of activities with the theme “Me and Positive Energy”, “My Healthy Life”, “My Low Carbon Environment” and “My Happy Life”. In addition to providing education sponsorship for the children of employees, we also extended the coverage of our mental health counselling hotline to cover even more companies and employees in 2015.



## 8.3 | Our Customers

Towngas delivers gas services to the public in both commercial and residential areas. As a service provider, we believe that a quality customer experience is essential to sustaining our business success and upholding the spirit of our corporate responsibility pledges. 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.

### Sharpening Our Service Skills

In addition to observing international best practices in customer service, we have incorporated the traditional Chinese virtue of “Courtesy” into our service principles. Following the three key elements of courtesy – etiquette, politeness and caring – a training programme was specially designed to focus on staff behaviour and mindsets, cultivating respect for our valued customers which truly comes from the heart. Since the introduction of the programme in 2013, 74 training sessions have been conducted for over 1,300 employees, benefitting both frontline staff and contractors from relevant business units, which include customer service, marketing and sales, and our restaurant.

We also included the “Three Courtesies” concept in the TQM programme launched in mainland China to further nurture a caring and efficient service culture among employees.

### Protecting Customer Data and Privacy

When communicating with customers, we strictly adhere to all regulatory requirements which protect their legal rights and data privacy. Comprehensive policies and procedures have been created for staff to observe when handling confidential or proprietary information, with associated training held for relevant staff members across the Group.



Towngas has established a Data Privacy Departmental Committee and a Data Protection Office to monitor and drive continuous improvements in the performance of all departments and subsidiaries that are responsible for data protection. The standing committee reviews strategies on handling the Company’s personal data and makes recommendations to the Executive Committee when a significant incident of data leakage occurs. Moreover, the designated Data Protection Officer coordinates and handles matters related to data protection. These entities are required to make declarations to the Group on an annual basis.

To cope with the amendment of the privacy law on direct marketing, we have upgraded the system to enhance the operational processes. We also provided periodic training and seminars to colleagues and contractors, enhancing their awareness and knowledge of personal data protection.

During the year, there were no substantiated complaints regarding breaches of customer privacy or losses of customer data.



## Tracking Customer Satisfaction

Launched in 1994, the Towngas Service Pledge has set a number of targets for excellence in terms of service reliability, safety, accessibility, convenience and quality, and the handling of customer inquiries.

### Results of Towngas Service Pledge 2015

#### Reliability



Uninterrupted gas supply (over 99.99%)  
**99.992%**

3 days prior notification in cases of supply interruption on account of maintenance or engineering work  
**100%**

Restoration of gas supply within 12 hours  
**100%**

#### Safety



Emergency team average arrival time (within 25 minutes)  
**Average 20.96 minutes**



#### Service Quality

Efficiency\*  
**8.85**

Courteous and friendly attitude\*  
**8.86**

#### Appointments



Availability of maintenance and installation services within 2 working days  
**Average 1.12 days**

#### Handling Suggestions



Reply within 3 working days  
**100%**

Resolution, or a statement of when the matter will be resolved, within 2 weeks  
**100%**

#### Speed and Convenience

Customer Service Hotline (calls answered within 4 rings)  
**93.21%**



Connect or disconnect gas supply within one working day  
**100%**

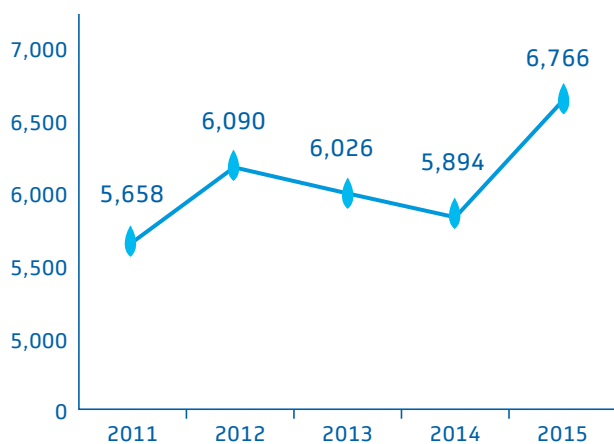
upon customer's request

Deposit refunded at Customer Centres (2 hours after disconnection of gas supply)  
**100%**  
upon customer's request

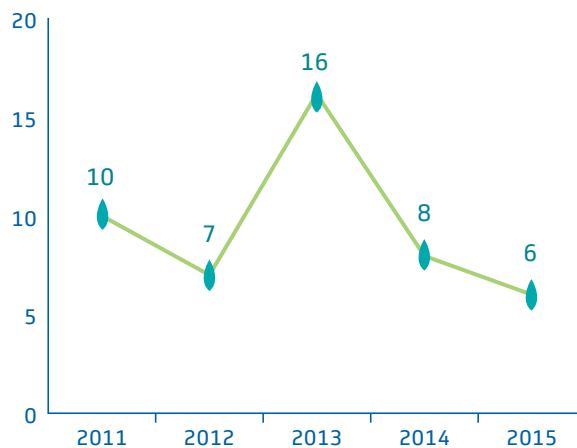
\* The result was based on surveys conducted by an independent research company. Our target is to exceed a score of 8 out of 10.

Towngas has also engaged an external research company to conduct customer satisfaction surveys on a monthly basis. The Customer Focus Team, which comprises senior staff from frontline departments, organises two visits every month to local residential areas to collect first-hand feedback from the public and deliver safety and green messages.

#### Customer Compliments



#### Customer Complaints



## 8.4 | Our Community

Towngas always strives to conduct business in a responsible manner and practice good corporate citizenship in order to assist the development of society. We offer donations and financial sponsorship to non-governmental organisations, supporting their public programmes. Moreover, Towngas directly contributes resources and expertise through staff volunteering exercises and by creating social initiatives that contribute to local communities.

In 2015, we conducted a review of our approach to sponsorship and charitable donations, with the aim of focusing our valuable resources in the areas of corporate social responsibility that reflect the top five attributes of our business, namely “Community”, “Quality”, “Safety”, “Service” and “Environmental Protection”.

#### Hong Kong

##### Gas Appliances for the Community Programme

The programme was launched in April 2015 to celebrate the 15th anniversary of the Towngas District Council Focus Teams. In partnership with the 18 District Councils in Hong Kong, Towngas aimed to deliver 10,000 cooking appliances to low-income families, as well as elderly couples and singles aged 60 or over, helping improve their quality of life.

During the year, we also distributed 50,000 stick umbrellas which were specially designed for the elderly, making their daily life more convenient.

### Rice Dumplings and Mooncakes for the Community

One of our longest-running CSR traditions, the Towngas Rice Dumplings for the Community programme has been organised annually during the Dragon Boat Festival since 2000.

In 2015, with the help of nearly 240 legislative councillors, district councillors, members of 16 local organisations and volunteers, a total of 330,000 rice dumplings were wrapped and given to elderly people living alone and needy people in the community. Towngas invited the families of children with specific needs from SAHK to attend the campaign kick-off event on 7 June. By learning the traditional skill of wrapping rice dumplings at the event, the children were able to exercise their hand muscles and develop the ability of concentration while their parents gained knowledge about low-carbon diet and had fun with their children during festival.



Since 2001, Towngas has initiated the annual charity event, Mooncakes for the Community, to spread love and care to the community during the Mid-Autumn Festival. In 2015, about 100,000 mooncakes were distributed to needy families and elderly people for an accumulated total of 1,720,930 mooncakes since the programme was first rolled out.



### Warmth and Care Fresh Food Aid Programme

In 2013, Towngas collaborated with CookEasy and the Salvation Army to launch the first-of-its-kind Towngas Warmth and Care Fresh Food Aid Programme, offering nutritious fresh food packs to 150 single-parent and low income families twice a week. In 2015, the programme was extended to benefit families in need, not only from the Sham Shui Po and Kowloon City districts, but also from the Wong Tai Sin and Yau Tsim Mong areas. A total of 46,800 fresh food packs have been distributed since the launch of the programme.





### CookEasy Partnership Programme

In 2008, Towngas partnered with the Tung Wah Group of Hospitals to launch a social enterprise, CookEasy, which provides a fresh, healthy and convenient food pack delivery service for busy city dwellers so that they can enjoy wholesome, home-style dishes. CookEasy offers employment and training opportunities to people with disabilities who can acquire relevant work skills, helping rebuild their self-confidence.



### Toilet Washlets for the Elderly programme

To allow the elderly to care for themselves and reduce the workload of nursing staff, Towngas launched the Toilet Washlets for the Elderly programme in 2013. An accumulated total of 161 washlets have been installed in elderly hostels as at the end of 2015.

In 2015, over HK\$310,000 was raised through our annual Mad Dog Café fundraising initiative, held internally to support the programme.



### Pink Walk for Breast Health 2015 and Off Peak Pink Walk

In 2015, 51 staff and family members joined the Pink Walk for Breast Health 2015, organised by the Hong Kong Breast Cancer Foundation on 18 October. Towngas also sponsored the Off Peak Pink Walk, offering appliance coupons to participants. A series of activities, including special charitable cooking classes, were held to raise funds and promote breast cancer awareness and breast protection.

### Towngas Concession Schemes

To help care for the disadvantaged in society, we have launched four concession schemes, the Towngas Concession Scheme for the Elderly, Towngas Concession Scheme for People with Disabilities, Towngas Concession Scheme for Single-parent Families and Towngas Concession Scheme for Low Income Families, providing these groups with additional service benefits. The number of households benefiting from these schemes reached 46,745 by 2015.

### Towngas Volunteer Service Team

During the year, a total of 859 employees joined the Towngas Volunteer Service Team to carry out community activities in Hong Kong. Since its founding in 1999, the number of accumulated volunteering hours has reached 622,006.



## Mainland China

### Gentle Breeze Movement

We spread warmth and care across our businesses on the mainland. Since 2013, over RMB2.4 million has been donated through the Gentle Breeze Movement to help needy communities and schools via education projects. A total of 29 schools in the provinces of Jiangxi, Anhui, Jiangsu, Shandong, Guizhou and Shaanxi renovated their premises and received new learning tools to enhance the quality of education for the students.



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

We have participated in the China Guangcai Loving Home – Home of Happiness and Peace, a public welfare project launched by the China Guangcai Programme Foundation and Beijing Global Village in 2014. During this six-month programme, volunteers travelled to mountainous areas of Chongqing to support children whose parents work far from home, helping them with schoolwork while organising additional extracurricular activities for them.



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

In 2015, we continued to support the Shanghai Soong Ching Ling Foundation – BEA Charity Fund, helping set up 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.

### Towngas China Volunteer Service Team

Around 70% of our enterprises in mainland China have set up their own volunteer service teams. During the year, our volunteers contributed over 82,000 hours of service to their communities, including building libraries for children in poor areas and donating festive food to orphans, the elderly and people in need across the country.





# 9 KEY STATISTICS

This section presents an overview of our 2015 non-financial performance on Hong Kong operations, with a focus on economic, safety, environmental, employee and social aspects. This quantitative data has been selected from the Global Reporting Initiative (GRI) G4 Guidelines, the ESG Guide of The Stock Exchange of Hong Kong Limited, and other key performance indicators.

	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



	Unit	2015	2014	2013	2012	2011
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

### Occupational Health and Safety<sup>1</sup>

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
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

## Key Statistics

	Unit	2015	2014	2013	2012	2011
<b>Employees</b>						
<b>Employees as at 31 December</b> <i>(Hong Kong gas business only)</i>	Number	1,999	1,972	1,966	1,943	1,938
<b>Employees as at 31 December</b> <i>(all Hong Kong staff)<sup>2</sup></i>	Number	2,380	2,331	2,310	2,266	2,239
<b>Employees as at 31 December</b> <i>(mainland China)</i>	Number	45,292	44,257	42,294	39,142	35,570
<b>Average turnover of workforce</b> <i>(Hong Kong gas business only)</i>	%	4.8	6.4	5.1	4.6	4.6
<b>Average turnover of workforce</b> <i>(all Hong Kong staff)</i>	%	5.8	7.4	5.9	5.5	6
<b>Average turnover of workforce</b> <i>(mainland China)</i>	%	3.2	N/A	N/A	N/A	N/A
<b>Ratio of male to female in Hong Kong – Employees</b>	Number	3.8:1	3.8:1	3.7:1	3.8:1	4:1
<b>Ratio of male to female in Hong Kong – Senior Managers</b>	Number	4.1:1	3.9:1	3.9:1	3.8:1	4.5:1

**New Recruitment**

<b>Male</b>	<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



		Unit	2015	2014	2013	2012	2011
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

#### Average Training Hours (HSE training excluded)

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

#### Employee Performance and Career Reviews

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

### Social Performance

#### Customer Service

Customer compliments	Number	6,766	5,849	6,026	6,090	5,658
Customer complaints	Number	6	8	16	7	10

	Unit	2015	2014	2013	2012	2011
<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>						
Towngas Headquarters						
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
Vehicle Fleet <sup>5</sup>						
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
Estimated Packaging Material Use						
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



	Unit	2015	2014	2013	2012	2011
<b>Resource Conservation</b>						
<b>Naphtha saved</b> <i>(Gas production)<sup>6</sup></i>	GJ	519,160	492,844	477,459	639,480	671,272
<b>Town gas saved</b> <i>(Gas production)<sup>6</sup></i>	GJ	31,766	34,945	41,942	41,912	44,011
<b>Water saved</b> <i>(gas production)<sup>6</sup></i>	Cubic metres	213,766	223,174	230,288	218,887	177,463
<b>Amount of raw water collected by the rainwater harvesting system</b> <i>(Tai Po Plant)</i>	Cubic metres	3,663	N/A	N/A	N/A	N/A
<b>Grid electricity saved through PV panels</b>	GJ	312	313	312	311	312
<b>Landfill gas utilisation as heating fuel in gas production</b> <i>(from Shuen Wan)</i>	GJ	31,766	34,945	41,942	41,912	44,011
<b>Landfill gas utilisation as heating fuel in gas production</b> <i>(from NENT SNG)</i>	GJ	519,160	492,844	477,459	639,480	671,272
<b>Electricity saved</b> <i>(Towngas Headquarters and Ma Tau Kok office)<sup>6</sup></i>	GJ	19,557	18,581	17,396	15,316	15,243
<b>CO<sub>2</sub> reduction equivalent to electricity saved</b> <i>(Towngas Headquarters and Ma Tau Kok office)<sup>7</sup></i>	Tonnes	3,803	3,613	3,376	2,981	2,963



	Unit	2015	2014	2013	2012	2011
<b>Emissions</b>						
<b>Carbon dioxide</b> (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)
<b>Nitrogen oxides</b> (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)
<b>Sulphur oxides</b> (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)
<b>Greenhouse gases</b> (production equipment) <sup>8</sup>	Tonnes in terms of CO <sub>2</sub> equivalent	357,845	358,582	365,981	360,634	362,307
<b>Effluent and Waste</b>						
<b>Treated wastewater discharged to marine water bodies</b>	Daily average in cubic metres	47	N/A	N/A	N/A	N/A
<b>Wastewater discharged to sewage</b>	Daily average in cubic metres	239	N/A	N/A	N/A	N/A
<b>Total wastewater discharged</b>	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)
<b>Non-hazardous waste landfilled<sup>9</sup></b>	Tonnes	123.6	129.5	126.7	N/A	N/A
<b>Non-hazardous waste recycled<sup>10</sup></b>	Tonnes	210	N/A	N/A	N/A	N/A



	Unit	2015	2014	2013	2012	2011
<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

Unit		2015	2014	2013	2012	2011
<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.

# 10 GRI & ESG GUIDE

## CONTENT INDEX

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### Global Reporting Initiative (GRI) G4 Content Index (with Oil and Gas Sector Disclosures)






		Cross Reference/Information (SR – Towngas Sustainability Report 2015; AR – Towngas Annual Report 2015; WEB – www.towngas.com)	External Assurance
Indicator	Description		
General Standard Disclosures			
Strategy and Analysis			
G4-1	Statement from the most senior decision-maker of the organisation	SR: Managing Director’s Message	
G4-2	Provide a description of key impacts, risks and opportunities	<u>AR: Risk Factors</u>	
Organisational Profile			
G4-3	Name of the organisation	SR: Our Company	
G4-4	Primary brands, products, and/or services	In Hong Kong, our core business consists of gas production and distribution, the marketing and sale of gas appliances, as well as comprehensive after-sales services.	
G4-5	Location of organisation’s headquarters	SR: Our Company	
G4-6	Number of countries where the organisation operates, and names of countries with either major operations or that are specifically relevant to the sustainability issues covered in the report	SR: Our Company; Appendices We have projects in Hong Kong, mainland China and Thailand.	
G4-7	Nature of ownership and legal form	SR: Our Company	
G4-8	Markets served (including geographic breakdown, sectors served, and types of customers/ beneficiaries)	SR: Our Company >> Our Business; Appendices	
G4-9	Scale of the reporting organisation	SR: Our Company >> Our Business; Key Statistics >> Economic Performance, Employees	
G4-10	Employee statistics	SR: Social Performance >> Our People; Key Statistics >> Employees	

Indicator	Description	Cross Reference/Information (SR – Towngas Sustainability Report 2015; AR – Towngas Annual Report 2015; WEB – www.towngas.com]	External Assurance
G4-11	Percentage of employees covered by collective bargaining agreements	SR: Social Performance >> Our People >> Equal Opportunity and Diversity	
G4-12	Description of the organisation's supply chain	SR: Sustainability at Towngas >> Supply Chain Management	
G4-13	Significant changes during the reporting period regarding the organisation's size, structure, ownership or its supply chain	In 2015, there were no significant changes.	
<b>Commitments to External Initiatives</b>			
G4-14	Explanation of whether and how the precautionary approach or principle is addressed by the organisation	SR: Our Company >> Corporate Governance; Sustainability at Towngas >> HSE Policy and Governance; Safety Performance >> Our Approach	
G4-15	Externally developed economic, environmental, and social charters, principles, or other initiatives to the organisation endorses or subscribes to	SR: Appendix III External Environmental, Social and Governance Charters and Initiatives followed and supported by Towngas	
G4-16	Memberships in associations	SR: Appendix II Memberships in Associations	
<b>Identified Material Aspects and Boundaries</b>			
G4-17	Entities included in the organisation's consolidated financial statements	SR: About this Report >> Scope of the Report	
G4-18	Process for defining report content and aspect boundaries	SR: About this Report >> Materiality Assessment; Sustainability at Towngas >> Stakeholder Engagement >> Material Aspects to Towngas	
G4-19	Material aspects identified in the process for defining report content	SR: Sustainability at Towngas >> Stakeholder Engagement >> Material Aspects to Towngas	
G4-20	Aspect boundary within the organisation for each material aspect	SR: Sustainability at Towngas >> Stakeholder Engagement >> Material Aspects to Towngas	



Indicator	Description	Cross Reference/Information (SR – Towngas Sustainability Report 2015; AR – Towngas Annual Report 2015; WEB – www.towngas.com)	External Assurance
G4-21	Material aspect outside the organisation for each material aspect	SR: Sustainability at Towngas >> Stakeholder Engagement >> Material Aspects to Towngas	
G4-22	Explanation of the effect of any re-statements of information provided in earlier reports, and the reasons for such re-statements	No re-statements	
G4-23	Significant changes from previous reporting periods in the scope and boundary	SR: Sustainability at Towngas >> Stakeholder Engagement >> Material Aspects to Towngas	
Stakeholder Engagement			
G4-24	List of stakeholder groups engaged by the organisation	SR: Sustainability at Towngas >> Stakeholder Engagement	
G4-25	Basis for identification and selection of stakeholders with whom to engage	SR: Sustainability at Towngas >> Stakeholder Engagement >> Material Aspects to Towngas	
G4-26	Approaches to stakeholder engagement	SR: About this Report >> Materiality Assessment; Sustainability at Towngas >> Stakeholder Engagement	
G4-27	Key topics and concerns that have been raised through stakeholder engagement, and how the organisation has responded to those key topics and concerns, including through its reporting	SR: Managing Director’s Message; Sustainability at Towngas >> Stakeholder Engagement; Environmental Performance >> Stakeholder Dialogue; Safety Performance >> Stakeholder Dialogue; Social Performance >> Stakeholder Dialogue	
Report Profile			
G4-28	Reporting period (e.g. fiscal/calendar year) for information provided	SR: About this Report	
G4-29	Date of most recent previous report	Our previous Sustainability Report was published in 2015 for the reporting year 2014.	
G4-30	Reporting cycle	We publish the Sustainability Report on an annual basis.	




		Cross Reference/Information (SR – Towngas Sustainability Report 2015; AR – Towngas Annual Report 2015; WEB – www.towngas.com]	External Assurance
Indicator	Description		
G4-31	Contact point for questions regarding the report or its contents	SR: About this Report >> Feedback	
G4-32	GRI Content Index , ‘in accordance’ option the organisation has chosen and the reference to the External Assurance Report	SR: GRI & HKEx ESG Guide Content Index	
G4-33	Policy and current practice with regard to seeking external assurance for the report	SR: About this Report; Verification Statement	
Governance			
G4-34	Report the governance structure of the organisation, including committees of the highest governance body. Identify any committees responsible for decision-making on economic, environmental and social impacts	SR: Our Company >> Corporate Governance; Sustainability at Towngas >> HSE Policy and Governance  <u>AR: Corporate Governance Report</u>  <u>WEB: Investor Relations &gt;&gt; Corporate Governance</u>	
Ethics and Integrity			
G4-56	The organisation’s values, principles, standards and norms of behaviour, such as codes of conduct and codes of ethics	SR: Our Company >> Our Vision and Mission, Corporate Governance  <u>WEB: Investor Relations &gt;&gt; Corporate Governance &gt;&gt; Code of conduct</u>	

## SPECIFIC STANDARD DISCLOSURES







### Economic

#### Economic Performance

G4-DMA	Generic Disclosures on Management Approach	SR: Our Company <u>AR: Chairman’s Statement</u>	
G4-EC1	Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments.	SR: 2015 Highlights >> 2015 Financial Analysis  <u>AR: Report of the Directors</u>	









Indicator	Description	Cross Reference/Information (SR – Towngas Sustainability Report 2015; AR – Towngas Annual Report 2015; WEB – www.towngas.com)	External Assurance
G4-EC2	Financial implications and other risks and opportunities for the organisation's activities due to climate change	SR: Sustainability at Towngas >> HSE Policy and Governance; Environmental Performance >> Our Approach >> Climate Change Risk Assessment and Mitigation Measures <u>AR: Risk Factors</u>	
G4-EC3	Coverage of the organisation's defined benefit plan obligations	Not Applicable	
G4-EC4	Significant financial assistance received from government	No financial assistance from HKSAR Government was received.	
<b>Market Presence</b>			
G4-DMA	Generic Disclosures on Management Approach	SR: Our Company; Social Performance >> Stakeholder Dialogue	
G4-EC5	Ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation	In 2015, all standard entry level wages fulfilled the regulatory requirement.	
<b>Environmental</b>			
<b>Materials</b>			
G4-DMA	Generic Disclosures on Management Approach	SR: Environmental Performance >> Our Approach <u>WEB: About Towngas &gt;&gt; Business Opportunities &gt;&gt; Policy (The Towngas Environmental Purchasing Policy)</u>	
G4-EN1	Materials used by weight or volume	SR: Key Statistics >> Environmental Performance >> Energy and Resource Consumption	
G4-EN2	Percentage of materials used that are recycled input materials	SR: Key Statistics >> Environmental Performance >> Effluent and Waste	
<b>Energy</b>			
G4-DMA	Generic Disclosures on Management Approach	SR: Environmental Performance >> Our Approach, Clean Production in Hong Kong	







Indicator	Description	Cross Reference/Information (SR – Towngas Sustainability Report 2015; AR – Towngas Annual Report 2015; WEB – www.towngas.com)	External Assurance
G4-EN3	Energy consumption within the organisation	SR: Environmental Performance >> Green Office/Greening our Headquarters >> Saving Electricity; Key Statistics >> Environmental Performance >> Energy and Resource Consumption	
G4-EN6	Reduction of energy consumption	SR: Environmental Performance >> Green Office/Greening our Headquarters >> Saving Electricity; Key Statistics >> Environmental Performance >> Resource Conservation  <u>WEB: Social Responsibility &gt;&gt; Environmental Protection &gt;&gt; Green Office</u>	
G4-EN7	Reductions in the energy requirements of products and services	We acquired energy labels for all models of domestic gas cooking appliances covered by the Voluntary Energy Efficiency Labelling scheme.	
G4-OG3	Total amount of renewable energy generated by source	SR: Environmental Performance >> Clean Energy >> Utilisation of Landfill Gas; Key Statistics >> Environmental Performance >> Resources Conservation >> Grid electricity saved through PV Panels  The SENT Landfill Gas Utilisation Project is expected to be commissioned in Q3-2016.	
<b>Water</b>			
G4-DMA	Generic Disclosures on Management Approach	SR: Environmental Performance >> Clean Production in Hong Kong	
G4-EN8	Total water withdrawal by source	SR: Key Statistics >> Environmental Performance >> Energy and Resource Consumption  There was no issue in sourcing water that is fit for purpose in our Hong Kong operations.	












Indicator	Description	Cross Reference/Information (SR – Towngas Sustainability Report 2015; AR – Towngas Annual Report 2015; WEB – www.towngas.com)	External Assurance
G4-EN9	Water sources significantly affected by withdrawal of water	There is no withdrawal of surface or groundwater. All water consumed in Hong Kong is either collected through our rainwater harvesting system or purchased and distributed by the HKSAR Water Supplies Department.	
G4-EN10	Percentage and total volume of water recycled and reused	SR: Environmental Performance >> Clean Production in Hong Kong >> Water Conservation; Key Statistics >> Environmental Performance>> Resource Conservation	
<b>Emissions</b>			
G4-DMA	Generic Disclosures on Management Approach	SR: Environmental Performance >> Clean Production in Hong Kong >> Energy and Emissions Management  <u>WEB: Social Responsibility &gt;&gt;</u> <u>Environmental Protection &gt;&gt;</u> <u>Carbon Audit</u>	
G4-EN15	Direct greenhouse gas (GHG) emissions (Scope 1)	SR: Environmental Performance >> Clean Production in Hong Kong >> Energy and Emissions Management	
G4-EN16	Energy indirect greenhouse gas (GHG) emissions (Scope 2)	SR: Environmental Performance >> Clean Production in Hong Kong >> Energy and Emissions Management	
G4-EN18	Greenhouse gas (GHG) emissions intensity	SR: Environmental Performance >> Clean Production in Hong Kong >> Energy and Emissions Management	
G4-EN19	Reduction of greenhouse gas (GHG) emissions	SR: Environmental Performance >> Clean Production in Hong Kong >> Energy and Emissions Management, Green Office/Greening our Headquarters; Key Statistics >> Environment Performance >> Emissions	

Indicator	Description	Cross Reference/Information (SR – Towngas Sustainability Report 2015; AR – Towngas Annual Report 2015; WEB – www.towngas.com)	External Assurance
G4-EN21	NOx, SOx, and other significant air emissions by type and weight	SR: Environmental Performance >> Key Environmental Performance 2015 (Hong Kong); Key Statistics >> Environmental Performance >> Emissions	
<b>Effluents and Waste</b>			
G4-DMA	Generic Disclosures on Management Approach	SR: Environmental Performance >> Clean Production in Hong Kong >> Effluent and Waste	
G4-EN22	Total water discharge by quality and destination	SR: Key Statistics >> Environmental Performance >> Effluent and Waste	
G4-EN23	Total weight of waste by type and disposal method	SR: Key Statistics >> Environmental Performance >> Effluent and Waste <u>WEB: Social Responsibility &gt;&gt; Environmental Protection &gt;&gt; Waste Management</u>	
G4-EN24	Total number and volume of significant spills	No significant spills were recorded.	
G4-EN25	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII, and percentage of transported waste shipped internationally	None	
G4-EN26	Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the reporting organisation's discharges of water and runoff	No water bodies are significantly affected by our Hong Kong operations.	
G4-OG5	Volume and disposal of formation or produced water	In 2015, our Hong Kong operations did not involve formation or produced water.	
G4-OG7	Amount of drilling waste (drill mud and cuttings) and strategies for treatment and disposal	In 2015, our Hong Kong operations did not involve drilling waste.	



Cross Reference/Information (SR – Towngas Sustainability Report 2015; AR – Towngas Annual Report 2015; WEB – www.towngas.com)			External Assurance
Indicator	Description		
Products and Services			
G4-DMA	Generic Disclosures on Management Approach	SR: Environmental Performance >> Clean Production in Hong Kong >> Energy and Emissions Management	
G4-EN27	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation	SR: Environmental Performance >> Clean Production in Hong Kong >> Energy and Emissions Management  <u>WEB: Social Responsibility &gt;&gt;</u> <u>Environmental Protection &gt;&gt;</u> <u>Green Products</u>  We take environmental considerations into the development of new gas appliance models. Energy efficiency and the choice of packaging materials are also considered.	
G4-OG8	Benzene, lead and sulfur content in fuels	The composition of town gas is regulated by the Environmental Protection Department, and the benzene, lead and sulfur contents did not exceed the permitted levels during the reporting period.	
Compliance			
G4-DMA	Generic Disclosures on Management Approach	SR: Environmental Performance >> Our Approach	
G4-EN29	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations	In 2015, Towngas received no fines or non-monetary sanctions for incidences of non-compliance.	
Social: Labour Practices and Decent Work			
Employment			
G4-DMA	Generic Disclosures on Management Approach	SR: Social Performance >> Our Approach, Our People  <u>WEB: Investor Relations &gt;&gt;</u> <u>Corporate Governance</u>	



Indicator	Description	Cross Reference/Information (SR – Towngas Sustainability Report 2015; AR – Towngas Annual Report 2015; WEB – www.towngas.com]	External Assurance
G4-LA1	Total number and rates of new employee hires and employee turnover by age group, gender and region	SR: Social Performance >> Our People; Key Statistics >> Employees	
G4-LA2	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by significant locations of operation	SR: Social Performance >> Our People >> Employment Practices	
<b>Occupational Health and Safety</b>			
G4-DMA	Generic Disclosures on Management Approach	SR: Safety Performance>> Occupational health and safety  <u>WEB: Social Responsibility &gt;&gt; Health, Safety and Environmental Management</u>	
G4-LA5	Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs	SR: Sustainability at Towngas >> HSE Policy and Governance	
G4-LA6	Type of injury and rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities, by region and gender	SR: Key Statistics >> Safety Performance >> Occupational Health and Safety	
<b>Training and Education</b>			
G4-DMA	Generic Disclosures on Management Approach	SR: Social Performance >> Our People >> Staff Development	
G4-LA9	Average hours of training per year per employee by gender and employee category	SR: Key Statistics >> Employees	
G4-LA10	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings	SR: Social Performance >> Our People >> Staff Development>> Towngas Engineering Academy	
G4-LA11	Percentage of employees receiving regular performance and career development reviews, by gender	SR: Key Statistics >> Employees	



Indicator	Description	Cross Reference/Information (SR – Towngas Sustainability Report 2015; AR – Towngas Annual Report 2015; WEB – www.towngas.com)	External Assurance
Social: Society			
Local Communities			
G4-DMA	Generic Disclosures on Management Approach	SR: Safety Performance >> Gas Infrastructure Safety, Emergency Preparedness; Social Performance >> Our Community	
G4-S01	Percentage of operations with implemented local community engagement, impact assessments, and development programs	SR: Environmental Performance >> Our Approach >> Environmental Management Systems and Project Management; Social Performance >> Our Community	
G4-S02	Operations with significant actual or potential negative impacts on local communities	SR: Safety Performance >> Gas Infrastructure Safety, Emergency Preparedness, Customer Safety	
G4-OG11	Number of sites that have been decommissioned and sites that are in the process of being decommissioned	In 2015, our Hong Kong operations did not involve such sites.	
Social: Product Responsibility			
Customer Health and Safety			
G4-DMA	Generic Disclosures on Management Approach	SR: Safety Performance >> Customer Safety  <u>WEB: Social Responsibility &gt;&gt; Health and Safety</u>	
G4-PR1	Percentage of significant product and service categories for which health and safety impacts are assessed for improvement	SR: Safety Performance >> Customer Safety  During 2015, we conducted around 1,236,800 inspections of domestic gas facilities.	
Product and Service Labelling			
G4-DMA	Generic Disclosures on Management Approach	SR: Social Performance >> Our Customers	
G4-PR5	Results of surveys measuring customer satisfaction	SR: Social Performance >> Our Customers >> Tracking Customer Satisfaction; Key Statistics >> Social Performance >> Customer Service  <u>WEB: Household &gt;&gt; Customer Service &gt;&gt; Service Pledge</u>	

Indicator	Description	Cross Reference/Information (SR – Towngas Sustainability Report 2015; AR – Towngas Annual Report 2015; WEB – www.towngas.com)	External Assurance
<b>Marketing Communications</b>			
G4-DMA	Generic Disclosures on Management Approach	SR: Social Performance >> Our Customers >> Protecting Customer Data and Privacy	
G4-PR6	Sale of banned or disputed products	Towngas does not sell products that are banned in other markets or are the subject of stakeholder questions or public debate.	
G4-PR7	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship, by type of outcomes	In 2015, there were no recorded incidents of non-compliance.	
<b>Customer Privacy</b>			
G4-DMA	Generic Disclosures on Management Approach	SR: Social Performance >> Our Customers >> Protecting Customer Data and Privacy  <u>WEB: Privacy Policy Statement</u>	
G4-PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data	In 2015, there were no recorded incidents of non-compliance.	
<b>Compliance</b>			
G4-DMA	Generic Disclosures on Management Approach	SR: Safety Performance >> Customer Safety	
G4-PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services	In 2015, there were no recorded incidents of non-compliance.	
<b>Emergency Preparedness</b>			
G4-DMA	Generic Disclosures on Management Approach	SR: Environmental Performance >> Our Approach >> Climate Change Risk Assessment and Mitigation Measures; Safety Performance >> Emergency Preparedness	



Indicator	Description	Cross Reference/Information (SR – Towngas Sustainability Report 2015; AR – Towngas Annual Report 2015; WEB – www.towngas.com)	External Assurance
<b>Asset Integrity and Process Safety</b>			
G4-DMA	Generic Disclosures on Management Approach	SR: Safety Performance >> Gas Infrastructure Safety >> Asset Management	
G4-OG13	Number of process safety events, by business activity	SR: Key Statistics >> Safety Performance	
<b>Fossil Fuel Substitutes</b>			
G4-OG14	Volume of biofuels produced and purchased meeting sustainability criteria	SR: Environmental Performance >> Clean Energy >> Utilisation of Landfill Gas, Agricultural and Forestry Waste	

## Environmental, Social and Governance Reporting Guide (ESG Guide) of The Stock Exchange of Hong Kong Limited Content Index

### Cross Reference/Information

(SR – Towngas Sustainability Report 2015;  
WEB – [www.towngas.com](http://www.towngas.com))

### Subject Areas, Aspects, General Disclosures and KPIs

#### A. Environmental

##### Aspect A1: Emissions

General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer  relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste.	SR: Environmental Performance >> Clean Production in Hong Kong >> Energy and Emissions Management  <u>WEB: Social Responsibility &gt;&gt; Environmental Protection &gt;&gt; Carbon Audit</u>
KPI A1.1	The types of emissions and respective emissions data.	SR: Environmental Performance >> Key Environmental Performance 2015 (Hong Kong); Key Statistics >> Environmental Performance >> Emissions
KPI A1.2	Greenhouse gas emissions in total (in tonnes) and, where appropriate, intensity.	SR: Environmental Performance >> Clean Production in Hong Kong >> Energy and Emissions Management
KPI A1.3	Total hazardous waste produced (in tonnes) and, where appropriate, intensity.	SR: Key Statistics >> Environmental Performance >> Effluent and Waste
KPI A1.4	Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity.	SR: Key Statistics >> Environmental Performance >> Effluent and Waste
KPI A1.5	Description of measures to mitigate emissions and results achieved.	SR: Environmental Performance >> Clean Production in Hong Kong >> Energy and Emissions Management, Green Office/Greening our Headquarters
KPI A1.6	Description of how hazardous and non-hazardous wastes are handled, reduction initiatives and results achieved.	SR: Environmental Performance >> Clean Production in Hong Kong >> Effluent and waste; Key Statistics >> Environmental Performance >> Effluent and Waste  <u>WEB: Social Responsibility &gt;&gt; Environmental Protection &gt;&gt; Waste Management</u>

**Cross Reference/Information**

(SR – [Towngas Sustainability Report 2015](#);  
WEB – [www.towngas.com](http://www.towngas.com))

**Subject Areas, Aspects, General Disclosures and KPIs****Aspect A2: Use of Resources**

General Disclosure	Policies on the efficient use of resources, including energy, water and other raw materials.	SR: Environmental Performance >> Our Approach, Clean Production in Hong Kong
KPI A2.1	Direct and/or indirect energy consumption by type in total and intensity.	SR: Environmental Performance >> Green Office/Greening our Headquarters >> Saving Electricity, Key Statistics >> Environmental Performance >> Energy and Resource Consumption
KPI A2.2	Water consumption in total and intensity.	SR: Key Statistics >> Environmental Performance >> Energy and Resource Consumption
KPI A2.3	Description of energy use efficiency initiatives and results achieved.	SR: Environmental Performance >> Green Office/Greening our Headquarters >> Saving Electricity; Key Statistics >> Environmental Performance >> Resource Conservation  We acquired energy labels for all models of domestic gas cooking appliances covered by the Voluntary Energy Efficiency Labelling scheme.
KPI A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency initiatives and results achieved.	SR: Environmental Performance >> Clean Production in Hong Kong >> Water Conservation  There was no issue in sourcing water that is fit for purpose in our Hong Kong operations.
KPI A2.5	Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced.	SR: Key Statistics >> Environmental Performance >> Energy and Resource Consumption

**Aspect A3: The Environment and Natural Resources**

General Disclosure	Policies on minimising the issuer's significant impact on the environment and natural resources.	SR: Environmental Performance >> Our Approach
KPI A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	SR: Environmental Performance >> Our Approach, Environmental Management Systems and Project Management, Climate Change Risk Assessment and Mitigation Measures  <u>WEB: Social Responsibility &gt;&gt; Environmental Protection</u>



**Cross Reference/Information**

(SR – Towngas Sustainability Report 2015;  
WEB – [www.towngas.com](http://www.towngas.com))

**Subject Areas, Aspects, General Disclosures and KPIs****B. Social****Employment and Labour Practices****Aspect B1: Employment**

General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer  relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare.	SR: Social Performance >> Our People >> Employment Practices  <u>WEB: Investor Relations &gt;&gt; Corporate Governance</u>
KPI B1.1	Total workforce by gender, employment type, age group and geographical region.	SR: Social Performance >> Our People; Key Statistics >> Employees
KPI B1.2	Employee turnover rate by gender, age group and geographical region.	SR: Social Performance >> Our People; Key Statistics >> Employees
<b>Aspect B2: Health and Safety</b>		
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer  relating to providing a safe working environment and protecting employees from occupational hazards.	SR: Safety Performance>> Occupational Health and Safety  <u>WEB: Social Responsibility &gt;&gt; Health, Safety and Environmental Management</u>
KPI B2.1	Number and rate of work-related fatalities.	SR: Key Statistics >> Safety Performance >> Occupational Health and Safety
KPI B2.2	Lost days due to work injury.	SR: Key Statistics >> Safety Performance >> Occupational Health and Safety
KPI B2.3	Description of occupational health and safety measures adopted, and how they are implemented and monitored.	SR: Safety Performance>> Occupational Health and Safety  <u>WEB: Social Responsibility &gt;&gt; Health, Safety and Environmental Management</u>

**Cross Reference/Information**

(SR – Towngas Sustainability Report 2015;  
WEB – [www.towngas.com](http://www.towngas.com))

**Subject Areas, Aspects, General Disclosures and KPIs****Aspect B3: Development and Training**

General Disclosure	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.	SR: Social Performance >> Our People >> Staff Development
KPI B3.1	The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	SR: Key Statistics >> Employees
KPI B3.2	The average training hours completed per employee by gender and employee category.	SR: Key Statistics >> Employees

**Aspect B4: Labour Standards**

General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer  relating to preventing child and forced labour.	SR: Social Performance >> Our People >> Employment Practices
KPI B4.1	Description of measures to review employment practices to avoid child and forced labour.	We fully comply with local laws and regulations to avoid child and forced labour in locations where we operate. Our managers are entrusted to observe and practise in full compliance in matters related to these two areas. On-going monitoring and regular auditing are also in place.
KPI B4.2	Description of steps taken to eliminate such practices when discovered.	There has not been any single record of malpractice on child and forced labour across our operating locations due to strict compliance in these two areas.

**Operating Practices****Aspect B5: Supply Chain Management**

General Disclosure	Policies on managing environmental and social risks of the supply chain.	SR: Sustainability at Towngas >> Supply Chain Management  <u>WEB: About Towngas &gt;&gt;</u> <u>Business Opportunities &gt;&gt;</u> <u>CSR Code of Practice for Suppliers</u>
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Subject Areas, Aspects, General Disclosures and KPIs		Cross Reference/Information (SR – Towngas Sustainability Report 2015; WEB – <a href="http://www.towngas.com">www.towngas.com</a> )
KPI B5.1	Number of suppliers by geographical region.	SR: Sustainability at Towngas >> Supply Chain Management
KPI B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, and how they are implemented and monitored.	SR: Sustainability at Towngas >> Supply Chain Management
<b>Aspect B6: Product Responsibility</b>		
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer  relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress.	SR: Safety Performance >> Customer Safety; Social Performance >> Our Customers  <u>WEB: Privacy Policy Statement</u>
KPI B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	No relevant case was recorded.
KPI B6.2	Number of products and service related complaints received and how they are dealt with.	SR: Social Performance >> Our Customers >> Tracking Customer Satisfaction
KPI B6.3	Description of practices relating to observing and protecting intellectual property rights.	SR: Our Company >> Corporate Governance >> Code of Conduct  <u>WEB: Investor Relations &gt;&gt; Corporate Governance</u>
KPI B6.4	Description of quality assurance process and recall procedures.	SR: Safety Performance >> Our Approach
KPI B6.5	Description of consumer data protection and privacy policies, how they are implemented and monitored.	SR: Social Performance >> Our Customers  <u>WEB: Privacy Policy Statement</u>

**Cross Reference/Information**

(SR – Towngas Sustainability Report 2015;  
WEB – [www.towngas.com](http://www.towngas.com))

**Subject Areas, Aspects, General Disclosures and KPIs****Aspect B7: Anti-corruption**

General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer  relating to bribery, extortion, fraud and money laundering.	SR: Our Company >> Corporate Governance
KPI B7.1	Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases.	In 2015, there were no concluded legal cases regarding corrupt practices.
KPI B7.2	Description of preventive measures and whistle-blowing procedures, and how they are implemented and monitored.	SR: Our Company >> Corporate Governance >> Code of Conduct  <u>WEB: Investor Relations &gt;&gt;</u> <u>Corporate Governance</u>

**Community****Aspect B8: Community Investment**

General Disclosure	Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests.	SR: Social Performance >> Our Approach, Our Community  <u>WEB: Social Responsibility &gt;&gt;</u> <u>Community Care &gt;&gt;</u> <u>Community Services</u>
KPI B8.1	Focus areas of contribution (e.g. education, environmental concerns, labour needs, health, culture, sport).	SR: Social Performance >> Our Community
KPI B8.2	Resources contributed (e.g. money or time) to the focus area.	SR: Social Performance >> Our Community; Key Statistics >> Social Performance

# 11 APPENDICES

## Appendix I : Our Roles and Services

### Hong Kong Gas Business

- |   |  |
|---|--|
| The Hong Kong and China Gas Company Limited | <ul style="list-style-type: none"> <li>• Gas production and distribution</li> <li>• Marketing and sales of gas and gas appliances</li> <li>• Comprehensive after-sales services</li> </ul> |
|---|--|

- |                             |   |
|-----------------------------|---|
| Towngas Engineering Academy | <ul style="list-style-type: none"> <li>• Technical and professional training</li> </ul> |
|-----------------------------|---|

- |                                  |  |
|----------------------------------|--|
| Quality Testing Services Limited | <ul style="list-style-type: none"> <li>• Appliance and PE joint testing and gas meter calibration</li> </ul> |
|----------------------------------|--|

### Mainland Utilities Business

- |  |   |
|--|---|
| Hong Kong and China Gas Investment Limited | <ul style="list-style-type: none"> <li>• Management of Towngas investments in mainland China</li> </ul> |
|--|---|

- |                                   |  |
|-----------------------------------|--|
| Hong Kong and China Water Limited | <ul style="list-style-type: none"> <li>• Management of water business investments in mainland China</li> </ul> |
|-----------------------------------|--|

- |                               |  |
|-------------------------------|--|
| Towngas China Company Limited | <ul style="list-style-type: none"> <li>• Focus on piped city-gas projects in mainland China</li> </ul> |
|-------------------------------|--|

- |                             |   |
|-----------------------------|---|
| Towngas Engineering Academy | <ul style="list-style-type: none"> <li>• Technical and professional training</li> </ul> |
|-----------------------------|---|

### New Energy Business

- |                                       |  |
|---------------------------------------|--|
| ECO Environmental Investments Limited | <ul style="list-style-type: none"> <li>• LPG, LNG and CNG refilling stations in Hong Kong and mainland China</li> <li>• Construction and operation of Aviation Fuel Facility in Hong Kong</li> <li>• Exploration, research, development and utilisation of new and environmentally-friendly energy sources, such as coalbed methane, coal-based chemical projects, tar oil and biomass activities</li> <li>• Infrastructure and logistics projects in mainland China</li> <li>• An oil exploration and production project in Thailand</li> </ul> |
|---------------------------------------|--|



Diversified Businesses	
GH-Fusion Corporation Limited (a joint venture with British Fusion Group)	<ul style="list-style-type: none"><li>• Manufacture and supply of polyethylene products and equipment for gas and water piping systems</li></ul>
G-Tech Piping System (Zhongshan) Company Limited	<ul style="list-style-type: none"><li>• Manufacture of quality polyethylene piping</li></ul>
Towngas Telecommunications Company Limited	<ul style="list-style-type: none"><li>• Provision of telecommunications infrastructure and quality network solutions in Hong Kong and mainland China</li></ul>
U-Tech Engineering Company Limited	<ul style="list-style-type: none"><li>• Specialists in a variety of projects, including building services, liquefied petroleum gas projects, civil works, waterworks and other pipeline infrastructure projects</li></ul>
P-Tech Engineering Company Limited	<ul style="list-style-type: none"><li>• Plant design and construction</li><li>• Planning and operation of landfill gas utilisation projects in Hong Kong</li></ul>
M-Tech Metering Solutions Company Limited	<ul style="list-style-type: none"><li>• Development and supply of smart metering solutions for the gas industry</li></ul>
S-Tech Technology Holding Limited	<ul style="list-style-type: none"><li>• Product development, solution implementation and system integration</li><li>• Provides cloud computing solutions and other information technology products as well as consulting services to companies</li></ul>



## Appendix II : Memberships in Associations

Participating in industry and professional associations is a way for us to gain insights on the latest market trends and requirements, as well as to solidify our technical competencies to develop innovative energy technologies. It also allows us to share our experience and knowledge in the business community. Below is a list of examples of the memberships held by Towngas.

### Hong Kong and mainland China

- Association of Engineering Professionals in Society Ltd.
- British Chamber of Commerce in Hong Kong
- Business Environment Council Ltd.
- China Gas Association (Beijing)
- China Association for Quality
- Employers' Federation of Hong Kong
- Federation of Hong Kong Industries
- Green Cross Group
- Hong Kong Association of Energy Engineers
- Hong Kong Bakery and Confectionery Association Ltd.
- Hong Kong Computer Society
- Hong Kong General Chamber of Commerce
- Hong Kong Green Building Council
- Hong Kong Institute of Human Resources Management
- Hong Kong Institute of Marketing
- Hong Kong Management Association
- Hong Kong Retail Management Association
- Hong Kong Waste Management Association
- Institution of Fire Engineers (Hong Kong Branch)
- The Chamber of Hong Kong Listed Companies
- The Chinese General Chamber of Commerce
- The Chinese Manufacturers' Association of Hong Kong
- The Goods Vehicle Fleet Owners Association Ltd.
- The Hong Kong Advertisers' Association

### International

- Institution of Gas Engineers and Managers (IGEM)
- International Gas Union (IGU)
- World Energy Council
- World LP Gas Association

## Appendix III : External Environmental, Social and Governance Charters and Initiatives followed and supported by Towngas

External ESG Charters and Initiatives	Issuing Bodies
Corporate Governance	
Companies Ordinance, Chapter 622 of the laws of Hong Kong	The Government of the Hong Kong Special Administrative Region
Corporate Governance Code, Appendix 14 to the Listing Rules	The Stock Exchange of Hong Kong Limited
Securities and Futures Ordinance, Chapter 571 of the laws of Hong Kong	The Government of the Hong Kong Special Administrative Region
Environment	
Carbon Footprint Repository for Listed Companies in Hong Kong	Environment Bureau
Carbon Reduction Charter: Carbon Audit • Green Partners	Environment Bureau
Energy Saving Charter on Indoor Temperature	Environment Bureau and Electrical and Mechanical Services Department
Hong Kong Green Organisation	Environmental Campaign Committee
IAQwi\$e Certificate	
Wastewi\$e Certificate	
“Let’s save 10L Water” Campaign	Water Supplies Department
CarbonCare® Label and CarbonCare® Action Label	Carbon Care Asia
Hong Kong Green Purchasing Charter	Green Council
Hong Kong Zero Carbon Partnership	The University of Hong Kong
Innovation Partner of CarbonCare Open Innovation Lab	CarbonCare InnoLab
Green Office Label (GOALS)	World Green Organisation
“Order Less Waste Less, More Blessings” Light Banquets Campaign	Friends of the Earth (HK)
Safety	
Occupational Safety Charter	Occupational Safety and Health Council
International Safe Workplace	
Social Responsibility	
Family-Friendly Employers Award Scheme	Family Council
Talent-Wise Employment Charter and Inclusive Organisations Recognition Scheme	Labour and Welfare Bureau

# 12 VERIFICATION STATEMENT

## Scope and Objective

Hong Kong Quality Assurance Agency (HKQAA) has been commissioned by The Hong Kong and China Gas Company Limited (Towngas) to conduct an independent verification of its Sustainability Report 2015 (the Report). This is the 12th Sustainability Report of Towngas where performance related to economic, safety, environmental and social aspects for the period from 1st January 2015 to 31st December 2015 are presented, also respective sustainability strategies, policies and programmes are disclosed.

The aim of this verification is to provide reasonable assurance of the information stated in the Report in terms of the principles for defining report contents and report quality. The Report is prepared in accordance with the Core Option of the Global Reporting Initiative (GRI) G4 Sustainability Reporting Guidelines and the Oil and Gas Sector Disclosures as well as the Environmental, Social and Governance Reporting Guide (ESG Guide) of The Stock Exchange of Hong Kong Limited.

## Methodology

The verification methodology was reference to practices such as:

- International Standard on Assurance Engagement 3000 (Revised) – “Assurance Engagement Other Than Audits or Reviews of Historical Financial Information” issued by the International Audit ing and Assurance Standards Board;
- GRI G4 Sustainability Reporting Guidelines and the Oil and Gas Sector Disclosures; and
- ESG Guide

The verification procedure included reviewing relevant documentation, interviewing responsible personnel with accountability for preparing the Report and verifying the selected representative sample of data and information consolidated in the Report. Raw data and supporting evidence of the selected samples were thoroughly examined.





## Independence

HKQAA was not involved in collecting and calculating data, or in the development of the Report. HKQAA's activities are independent from Towngas.

## Conclusion

The verification results revealed that the Report has been prepared in accordance with the Core Option of the GRI G4 Sustainability Reporting Guidelines, the Oil and Gas Sector Disclosures and the ESG Guide.

The information presented in the Report provides a genuine representation of Towngas sustainability performance in the past year. The principles for defining report contents with respect to stakeholder inclusiveness, sustainability context, materiality and completeness are well adhered to that makes the Report more representative. The attributes for ensuring report quality in terms of accuracy, timeliness, comparability, clarity, reliability and balance are highly distinguishable. The materiality assessment and stakeholder engagement process has been further developed to envisage the most concerned sustainability aspects of Towngas for the formulation of the report structure. Furthermore, The Report is surely an effective communication channel for Towngas to convey its information in a transparent and timely manner. It also allows stakeholders to have a better comprehension of its operations in both Hong Kong and Mainland.

Signed on behalf of Hong Kong Quality Assurance Agency

**Connie Sham**  
Head of Audit  
May 2016





The Hong Kong and China Gas Company Limited  
香港中華煤氣有限公司







## YOUR FEEDBACK

If you have any questions or feedback, we would very much like to hear from you. Please fill in the [online questionnaire](#) or contact us:

**Corporate Health, Safety and Environment Department**  
**The Hong Kong and China Gas Company Limited**



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