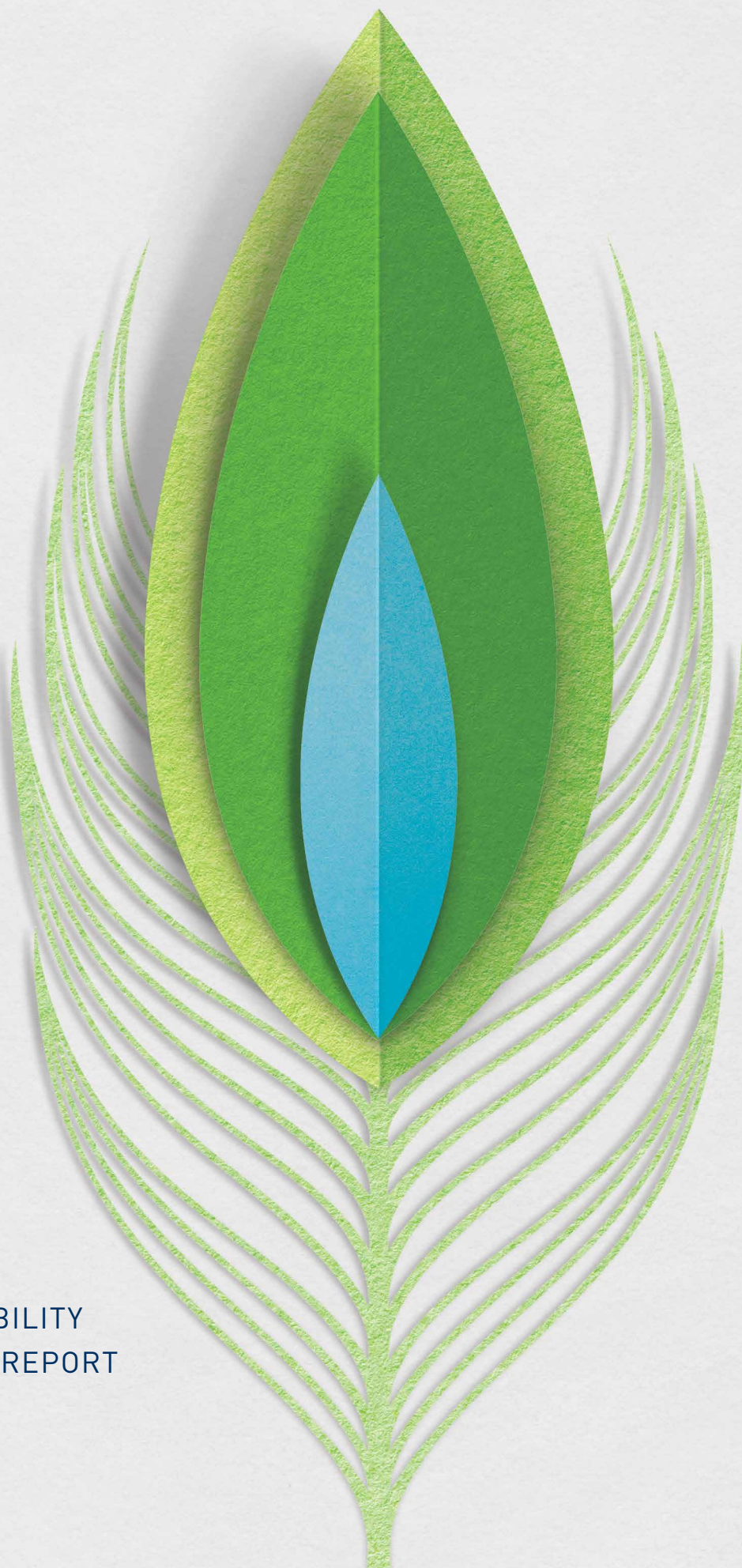




煤氣
Towngas

Greening up your life

[Stock code: 3]



SUSTAINABILITY
SUMMARY REPORT
2017

IN ACHIEVING SUSTAINABILITY, WE...

Maintain the highest standards of corporate governance

Consider risk governance as the top priority and establish a robust risk management system

Follow strict internal Codes of Conduct on best practices and ethical behavior

Ensure open, accountable and transparent communications

Guarantee efficient, effective and reliable business practices and operational controls

Act in the best interests of our stakeholders

Fulfill our corporate social responsibilities to our stakeholders, the environment and our community

Take the lead in our industry on all of these imperatives

Recognise the importance of our employees and our responsibility to keep them safe, engaged and equipped to undertake our mission

List of Barrier-free

Companies / Organisations
無障礙友善企業/機構名單 (2016/17)
Awarded by The Hong Kong Council of Social Service
香港社會服務聯會頒發

15 years +
商界展關懷
caring company
Awarded by The Hong Kong Council of Social Service
香港社會服務聯會頒發

MAJOR CORPORATE AWARDS AND RECOGNITION IN 2017



Governance

- Hong Kong Sustainability Award 2016/17**

- Certificate of Excellence
- Special Recognition for Creative Sustainability Idea

by The Hong Kong Management Association

- Constituent Companies of the Hang Seng Corporate Sustainability Index Series (Towngas and Towngas China)**

by Hang Seng Indexes Company Limited



Business and Service

- Business for Social Good Award**

by Our Hong Kong Foundation

- Customer Service Excellence Award 2017**

- Service Innovation Award (Gold Award)
- Team Award-Field and Special Service (Gold Award)

by Hong Kong Association for Customer Service Excellence



Environment

- 2016 BOCHK Corporate Environmental Leadership Awards**

- Gold Award (Manufacturing sector)
- Belt and Road Environmental Leadership Recognition Award

by The Federation of Hong Kong Industries and Bank of China (Hong Kong) Limited

- 2016 Hong Kong Awards for Environmental Excellence (Public Services - Silver Award)**

by Environmental Campaign Committee



Safety

- The 16th Hong Kong Occupational Safety and Health Award**

- Safety Management System (Other Industries) - Gold Award
- Safety Enhancement Programme - Gold Award
- Annual Report Award - Silver Award
- Safety Performance Award

> Other Industries

> Construction Industry (U-Tech Engineering Company Limited)

by Occupational Safety & Health Council



Social

- HR Asia Best Companies To Work For in Asia 2017**

by HR Asia

- Champion of Highest Service Hour Award 2016 (Private Organisations - Best Customers Participation)**

by Social Welfare Department





SUSTAINABILITY AT TOWNGAS

🌱 As Hong Kong's oldest public utility company, Towngas has a distinguished history since its establishment in 1862. We are committed to continuing serving our communities in Hong Kong, mainland China and further afield, for many years into the future. 🌱

Governance

A Sustainability Committee, headed by the Company's Managing Director, appointed by the Board was set up to oversee the Company's strategies, policies and practices on sustainability matters, as well as pursue innovative practices to promote the Company's sustainable growth. The Committee is responsible for:

- Identifying and reviewing sustainability issues, risks and opportunities;
- Tracking sustainability performance and recommending strategies to improve it;
- Reviewing and evaluating the annual Sustainability Report and recommending its endorsement by the Board / Executive Committee; and
- Providing updates to the Board / Executive Committee on the latest relevant sustainability matters.

Materiality Results

To identify the topics that are material to Towngas, a materiality assessment was carried out through engaging seven groups of internal and external stakeholders. This initiative marked the first time we engaged our employees in mainland China via an online survey. At the conclusion of the materiality analysis assessment, 22 material aspects were identified.



Economic

- Economic Performance
- Market Presence
- Anti-corruption



Environmental

- Materials
- Energy
- Water
- Emissions
- Effluent and Waste
- Environmental Compliance
- Supplier Environmental Assessment
- Products and Services



Social

- Employment
- Occupational Health and Safety
- Training and Education
- Local Communities
- Customer Health and Safety
- Marketing and Labeling
- Customer Privacy
- Socioeconomic Compliance
- Emergency Preparedness
- Asset Integrity and Process Safety
- Fossil Fuel Substitutes

2 ENVIRONMENT

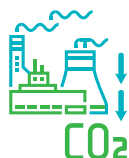
🌱 We strive to become the greenest company in Hong Kong. 🌱

Key Performance in 2017

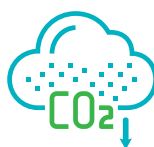


Total greenhouse gas (GHG) emissions
1,274,000 tonnes of carbon dioxide equivalent (tCO₂e)

↓ **23% reduction** in GHG emissions from our gas production in Hong Kong compared with 2005



2,700 tonnes of carbon emissions reduced by heat recovery system at our Tai Po Plant



15 projects received from operations in Hong Kong and mainland China for our eighth **carbon reduction competition**



1% reduction in water consumption and **2% reduction** in electrical power consumption at Towngas Headquarters compared with 2016

Climate Change

Towngas adopts a dual approach – mitigation and adaptation – to combat climate change effectively.

GHG Emissions

Towngas is committed to monitoring the Company's GHG emissions and has devised strategies for supporting an overall reduction. We monitor Scope 1 and 2 GHG emissions in accordance with the international and local guidelines, and conducted a company-wide carbon audit aligned to ISO 14064-1 standard to quantify and report our GHG emissions. To strengthen our commitment to cutting our carbon emissions, we have set a carbon reduction target.

Mitigation



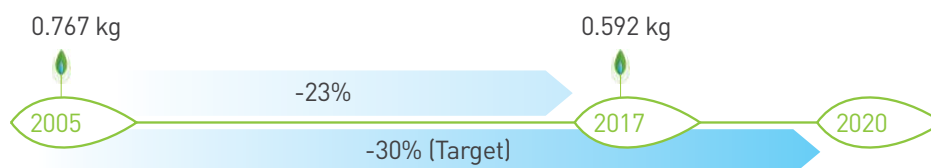
Adaptation



Climate Change Risk Assessment

We commissioned a comprehensive climate change risk assessment for our Hong Kong operations back in 2015. Since then, we have begun extending the risk assessment's reach to our joint ventures (JVs) in mainland China, and extended to three more provinces through visiting Hubei, Anhui and Sichuan in 2017. The progress of climate change adaptation measures across different departments are updated and monitored regularly.

CO₂ Emissions Per Unit of Town Gas in Hong Kong



Remarks: The carbon intensity was adjusted to align with the updated GHG emissions which excluded the CO₂ emissions from the use of landfill site.

Towngas Inaugural Green Bond

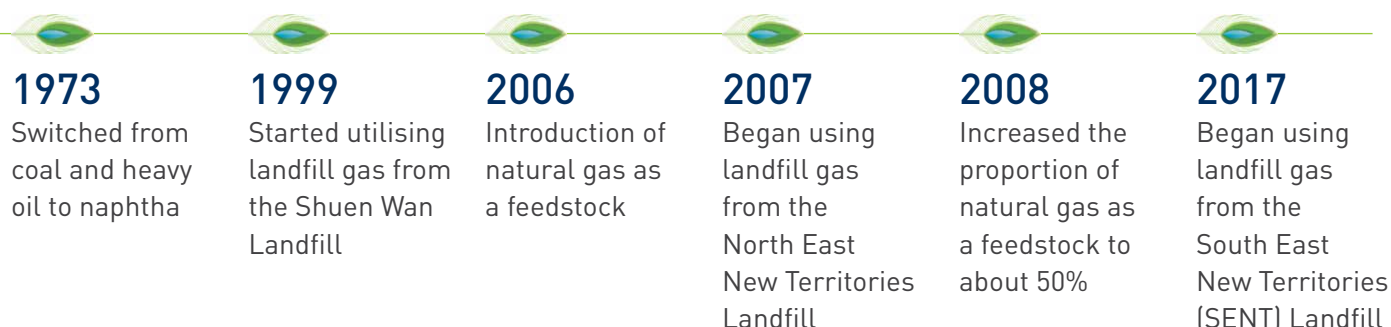
Towngas keeps abreast of the latest development of green financial instruments to fund the Group's environmental innovative technology projects. Issued in November 2017, the green bond was established to finance environmentally-friendly waste-to-energy investments, which also helps to support our cleaner fuel mix and sustainable sources of renewable energy, and other eligible green investments. We are the first and only energy utility company in Hong Kong to have issued a green bond.

Project Category	Location
Landfill Gas Utilisation	Tseung Kwan O, Hong Kong
Kitchen Waste Processing (Waste to Energy)	Suzhou, Jiangsu Province, PRC
Hydro-treated Vegetable Oil (Waste to Energy)	Zhangjiagang, Jiangsu Province, PRC
Agricultural Waste to Green Chemicals and Paper Pulp	Hubei Province, PRC

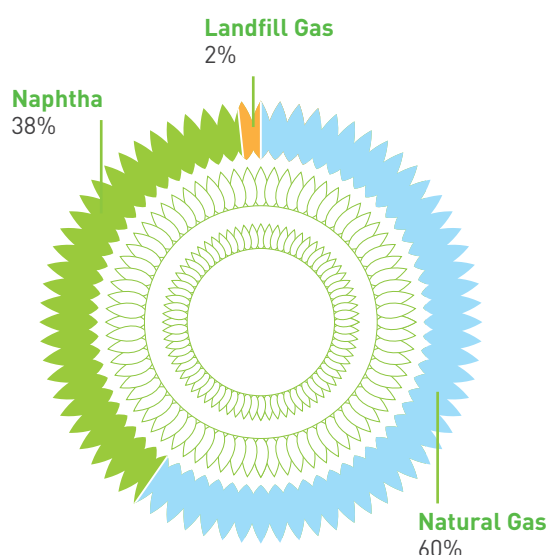
Clean Energy

As a responsible supplier of energy, Towngas' duty towards protecting the environment is not simply limited to our own activities, we also invest in technology and businesses that reduce our environmental impact.

Development of Town Gas Feedstock and Heating Fuel



2017 Fuel Mix for Town Gas Production



Commissioning the SENT Landfill Project

The new SENT landfill project is one of Hong Kong's largest environmental projects. With the launching of the SENT Landfill Project, we expect the use of landfill gas will be boosted from 2% to 5% of the fuel mix.



New Energy Developments and Unconventional Energy

In addition to using clean gas to fuel our operations, we have been developing new energy projects in mainland China that are low in emissions and pollution.

Clean Vehicular Fuel



Liquefied natural gas (LNG) refilling stations in mainland China

Coalbed Methane and Coke Oven Gas



LNG production by the methanation of coke oven gas in Xuzhou

Methanol and Gasoline



The coal-based methanol production plant in Inner Mongolia



We constructed a plant for upgrading inedible waste oil to hydro-treated vegetable oil (HVO) in Zhangjiagang

Nurturing a Green Culture

Towngas is a responsible corporation with a duty to protect the environment that is not just limited to our operations. We promote environmental awareness amongst our stakeholders through various channels (e.g. newsletter, Low Carbon Action! Facebook page and mini website), and a broad range of activities (e.g. seminars, workshops, tours, competitions).

In 2017, we combined our experience in environmental protection and health care to develop the Green and Healthy Cooking Tips for our customers and the general public.



3 HEALTH AND SAFETY

🌿 Safety culture is deeply ingrained at Towngas, and we strive for continuous improvement in our safety performance so that it encompasses our employees, contractors, customers and the public. 🌿

Key Performance in 2017

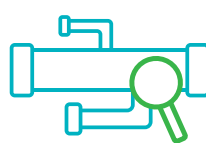
Hong Kong:



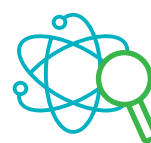
26,413
safety training hours



6 industrial accidents
(Towngas) and
4 industrial accidents
(Towngas' subsidiaries)



10,897
sites of trench
inspections



152,241
network inspections

Mainland China:



979,628
safety training hours



55 city-gas business JVs **completed safety audits and scored "Excellent" on average**



8 serious gas-related incidents

Production and Network Safety

Towngas is a major public utility company in Hong Kong and a leading energy supplier in mainland China. As such, it is essential to prevent major leaks and explosions at our production and storage facilities, in our pipelines and across our networks. We have implemented the Process Safety Management system (PSM) to control or mitigate major risks, safety inspections or audits were also carried out on our JVs across the region to ensure our mainland projects comply with corporate standards and guidelines.

- Conducted 113 safety/loss prevention inspections in Hong Kong
- Carried out 152,241 inspections across 10,897 sites, and surveyed 6,785 km of pipeline in Hong Kong
- Conducted 55 safety and risk management audits on mainland gas projects
- Inspected 28 mainland gas refilling stations and conducted 2 follow-up audits at the ECO Environmental Investments Limited (ECO) Shanxi liquefied coalbed methane plant and the ECO Inner Mongolia methanol plant



Occupational Safety and Health (OSH)

We implement comprehensive guidelines and establish measures so that Towngas' safety performance is in line with the highest industry and international standards.

Creating a Safe and Healthy Workplace



Towngas focuses on improving health and safety through innovation. In 2017, we enhanced roadwork safety through innovation and modification, thus, the pneumatic soil remover, easy-controlled electric trolley, self-assembled mechanical arm and automatic LED warning system of vehicles were developed.

Promoting Health and Safety Awareness



To raise the health and safety awareness of employees and contractors, a series of OSH training and promotion programmes are arranged every year. In 2017, we organised quarterly OSH campaigns:

- Q1 – Instant messaging Health, Safety and Environmental (HSE) reporting channel
- Q2 – Prevention of Musculoskeletal Disorders promotion programme
- Q3 – Heat stress promotion programme
- Q4 – 2017 HSE Month

Emergency Preparedness



To be prepared for emergencies, we conduct training and drills so all staff can respond effectively and quickly to emergencies, while table-top exercises were held in Hong Kong and mainland China to improve our management teams' skills in handling emergency situations.

4 OUR PEOPLE

🌱 We inspire, engage and develop our employees to create long-term continuity for our business. 🌱

Staff Development

At Towngas, we believe that our long-term success depends on the professional development of our people. We offer our employees support and resources for achieving their career goals.



1,030 Continuous Professional Development (CPD) seminar hours delivered



50,418 (Hong Kong)
142,020 (outside Hong Kong)
technical training hours delivered



10.5
Average Training Hours (Hong Kong - HSE training excluded)

In 2017, we launched two new talent development ventures to cultivate future leaders, as well as helping them to shape their future career.

Young Towngas Leadership Competence Accelerated Programme

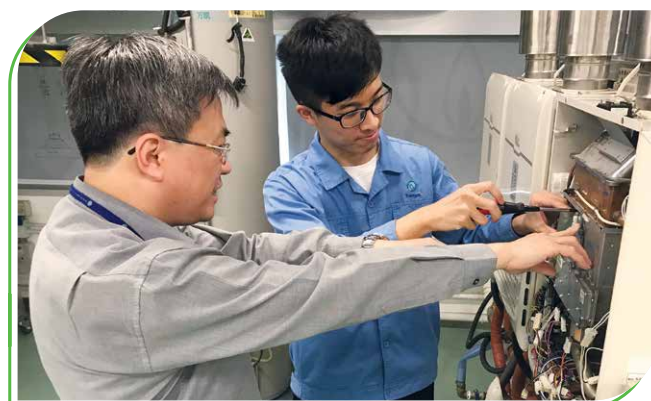


Network Supervisor Trainee Programme



Apprentice Programme

Our Gas Craft Apprentice Training Scheme is the longest-established gas training scheme in Hong Kong, and celebrated its 50th anniversary in 2017. To date, we have trained up more than 1,200 skilled staff to offer safe, high-quality products and services to our customers, ensuring a stable supply of technicians.



Responsible Employment Practices

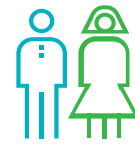
Towngas offers competitive remuneration packages and invests in fostering an inclusive workplace to attract the best talent.



Average turnover rate

6.4% (Hong Kong)

4.1% (outside Hong Kong)



Male: female ratio

3.7:1 (Hong Kong)

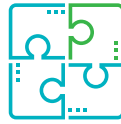
2.0:1 (outside Hong Kong)

Employee Well-being

At Towngas, we are dedicated to promoting work-life balance through workshops and activities for our employees. We also welcome staff and their families to participate in a wide range of corporate events and community service activities.



19 Fun Living Series activities were organised with **800** employees participated (Hong Kong)



244 activities organised (Hong Kong)



OUR SUPPLIERS

🌱 We harness our strength as a large group and the close relationships we have built with suppliers to best meet the needs of our customers. 🌱

Managing an efficient and sustainable supply chain is one of the important ways in which we drive business growth and maintain our competitive edge. To ensure our suppliers follow these standards, we have developed the Corporate Social Responsibility Code of Practice for Suppliers, which sets out a basic compulsory framework for ethical and responsible operations.



Over **150** suppliers were assessed on their Corporate Social Responsibility (CSR) performance



Over **100** suppliers in mainland China were making good progress towards the implementation of the 6S system

6 OUR CUSTOMERS

🌱 We aim to develop and deliver products and services that are safe, reliable and innovative to meet customers' needs in the most effective way possible. 🌱

Key Performance in 2017



Our gas supply reliability rate exceeded **99.99%** in Hong Kong



The service quality efficiency score was **8.91**, exceeding the target score of 8



6,017 customer compliments were received in Hong Kong



More than **330** employees in Hong Kong and mainland China participated in our Three Courtesies Programme

Customer Service Pledge

Our Customer Service Pledge spells out our commitment to providing exemplary customer service, establishing the ambitious standards that our employees are constantly striving towards.



Reliability



Safety



Appointments



Speed and Convenience



Service Quality



Handling Suggestions

Refining our Customer Service

Towngas is guided by a steadfast commitment to customer safety and satisfaction. We are privileged to manage more than 27 million customer accounts across Hong Kong and mainland China, including industrial and commercial, and residential households.

In 2017, we used virtual reality technology to create a 360-degree interactive online shopping experience. Customers can now explore our Towngas Customer Centres anytime, anywhere through the Towngas Appliance website.



Creating a Culture of Innovation

Towngas always encourage employees to explore new ideas, and our product development teams keep a close eye on market needs, along with the latest advances in technology. Our innovations have given our products and services an extra competitive edge, making real contributions to the Company's growth.

In 2017, we collaborated with City University of Hong Kong, the Gas Service Riser Repair Robot remotely repairs corroded pipes and removes the need to interrupt the gas supply.



7 OUR COMMUNITY

🌱 We care about the well-being of our communities and the environment in which enables us to improve people's quality of life and support youth development. 🌱

Key Performance in 2017

Group



Donated
HK\$5.1 million
to community activities



Hong Kong



282 voluntary activities
in which Towngas
volunteers participated



86,455 voluntary
service hours (including
employees and customers)



655,876 people
who benefited from our
volunteer services



Mainland China



More than **135,000**
voluntary service hours
serving local communities



RMB3.2 million
donated through our
Gentle Breeze Movement
since 2013



More than
9,600 saplings
were planted

By supporting NGOs' public programmes through fundraising, donations, sponsorship and volunteering – together with our concession schemes, social services and promotions – our intention is to enhance quality of life and create a sustainable environment in which future generations can do business and thrive.

Community Health and Wellness

- Warming Mooncakes
- We Can Cook Cooking Workshop
- Chef Anchor Cooking Programme



Environment

- Farming for Fun



- Plantation Enrichment Programme
- Low-carbon Cooking Micro Film Competition

Youth Development

- Cooking for Fun English cooking classes
- Gentle Breeze Movement



- Firefly Project



FUTURE ACTIONS AND TARGETS

Environment

Climate Change Mitigation	<ul style="list-style-type: none"> To organise the Ninth Carbon Reduction Competition To perform in-depth study on selected Hong Kong and mainland China projects for application of the Chinese Certified Emission Reduction To increase the proportion of biogas usage for town gas production To keep abreast of the latest developments in carbon reduction policies in Hong Kong and mainland China To identify and explore new initiatives relating to emissions reduction To study the feasibility of increasing the greening of off-take stations and gas production plants
Strengthen Climate Change Resilience and Adaptive Capacity	<ul style="list-style-type: none"> To extend the climate change risk assessment to JVs in other parts of China, and to monitor the effectiveness of the climate change adaptation measures in mainland JVs To continue monitoring various departments' progress in implementing the climate change adaptation measures
Improve Resources Management Practices	<ul style="list-style-type: none"> To obtain ISO 50001 Energy Management System certification To implement an energy management cloud platform system To identify and implement measures in reducing energy and water consumption, for example freight lift system modernisation at North Point Headquarters, reduction of air conditioning use at our data centres
Enhance Waste Management Practices	<ul style="list-style-type: none"> To obtain Wastewi\$e Certificate for the 17th consecutive year To centralise and streamline the recycling efforts of our colleagues, for example, set up collection points for recycling materials at North Point Headquarters and carry out related promotions To identify potential waste streams to reduce and/or recycle waste generated from our operation, such as recycle used lead acid batteries and obsolete office consumables, for example, electronic products, cartons and calendars
Obtain Green Building Certifications	<ul style="list-style-type: none"> To prepare gap analysis of the Building Environmental Assessment Method (BEAM) Plus new version and North Point Headquarters for renewal in 2020
Enhance Carbon, Environment, Social and Governance (ESG) Data Management and Reporting	<ul style="list-style-type: none"> To explore ways to improve transparency on carbon reporting To improve the ESG data management system in mainland China
Promote Environmental Awareness to Our Stakeholder, Including Employees, Contractors and Customers	<ul style="list-style-type: none"> To study and develop environmental best practice guidelines for Towngas' cooking centre, restaurant and gas refilling stations To develop internal guidelines on organising green events To continuously organise environmental visits, seminars, training programmes and activities for employees, contractors and their family members

Health and Safety

Ensure Safe and Secure Operations	<ul style="list-style-type: none"> To conduct safety/loss prevention inspection at premises of and assets belonging to Towngas To conduct safety inspections of ECO mainland gas refilling stations and safety audits of ECO mainland chemical plants To conduct internal safety audits for Towngas Telecommunications Company Limited (TGT) and further improve their safety performance To conduct security risk assessments, security surveys and security checks in Hong Kong and mainland China To support new security projects for JVs in mainland China
Improve Occupational Safety and Health Awareness of Employees and Contractors to Mitigate OSH Risks and Incidents	<ul style="list-style-type: none"> To organise both occupational safety and occupational health promotional activities in regular occasions, such as HSE Quiz, Contractor OSH Forum To organise training and issue security alert messages about different security aspects To organise firefighting training, exercises and drills, as well as training and exercise about handling bomb threat calls and suspicious objects to ensure our staff can respond effectively and promptly to emergency situations To develop OSH innovation to improve safety performance
Enhance Management's Ability to Handle Emergency Situations	<ul style="list-style-type: none"> To organise table-top exercises in various premises throughout Hong Kong and mainland China
Promote Safety Awareness and Culture Among Mainland Employees	<ul style="list-style-type: none"> To provide education, training and experience-sharing visits for our mainland employees For all managerial staff in our mainland JVs' risk management departments to earn the Safety Engineer Certificate
Improve Safety Management System	<ul style="list-style-type: none"> To transfer the OSH management system from OHSAS 18001 to ISO 45001 standard To review and develop/update procedures and guidelines To conduct safety audit to ensure the integrity of safety management system
Improve Performance Tracking	<ul style="list-style-type: none"> To monitor the implementation of OSH KPI and further develop OSH KPIs in normal operation To enhance ECO mainland chemical plants' safety performance by implementing an effective PSM system and monitoring process safety KPIs To apply the Industry 4.0 to improve efficiency, data management and safety management in gas production plants

Employment

Attract and Retain Talent	<ul style="list-style-type: none"> To continue strengthening initiatives conducive to talent attraction, retention and engagement To strengthen our employer brand further and to become the employer of choice for new talent who wish to join our diversified business portfolio
Manage Change and the Transformation of the Group's Businesses	<ul style="list-style-type: none"> To organise learning and development activities that reinforce change awareness and the mindset to prepare for the transformation and reengineering of our business processes To develop a competent workforce with the right mindset to manage change and the transformation of the Group's businesses To cultivate an entrepreneurial spirit among employees and their passion for creating a better world through powering business growth To empower our team leaders with the courage and skills to further unleash the potential of employees at various levels To nurture the MasterCraft spirit among all employees
Foster Youth Development	<ul style="list-style-type: none"> To continue launching high-potential talent programmes to prepare young managers for future leadership roles, thereby strengthening our talent pipeline and the Company's talent succession planning To expedite career progression for high-performing staff and to revamp our existing talent programmes to further strengthen retention and engagement To continue enriching our apprentice programme and Graduate Trainee Programme for developing a competent workforce

Supplier

Improve Green Procurement Practices	<ul style="list-style-type: none"> To identify and procure environmentally-friendly office equipment, consumables and services
Ensure Our Suppliers Meet All Our ESG Criteria	<ul style="list-style-type: none"> To request CSR self-assessment surveys and conduct CSR audits
Improve the Supplier Management System in Mainland China	<ul style="list-style-type: none"> To promote the use of the e-commerce system for all major items
Foster Better CSR Performance Among Suppliers	<ul style="list-style-type: none"> To continue to promote 6S practices among our suppliers in mainland China and conduct audits on 6S adoption To promote wider use of the Excessive Material Exchange Platform

Customer

Enhance Gas Reliability	<ul style="list-style-type: none"> Modifications of gas production plants to cope with increasing gas demand and improve gas supply reliability in Hong Kong, including <ul style="list-style-type: none"> (i) The installation of the backup export gas line (ii) Work at the Tai Po Plant to increase capacity by 20% To expand our piped gas network to ensure our capacity keeps pace with growing demand and to enhance supply reliability, for example further connections between the existing medium-pressure networks in Tsuen Wan and Tuen Mun to enhance network security in the Western New Territories and Tsuen Wan
Improve Customer Services	<ul style="list-style-type: none"> To enhance customer engagement and drive online transactions To enhance the Towngas Appliances website
Explore the Needs of Our Customers and Launch New Products to Cater their Needs	<ul style="list-style-type: none"> To schedule for launch in 2018: <ul style="list-style-type: none"> (i) Regenerative Electric Energy Module for cooking stoves, which uses residual cooking heat to power flame ignition (ii) Automatic gas supply shut-off system for build-in hob, which will cut the gas supply when abnormally high cooking utensil temperatures are detected

Community

Improve Community Health and Wellness	<ul style="list-style-type: none"> To continue installing toilet washlets in elderly care centres To maintain Towngas Concession Schemes to help disadvantaged groups To utilise our resources and expertise in helping disadvantaged groups in society To install heater in care centres for the elderly in 2018
Encourage Participation of Employees and Customers in Volunteer Work	<ul style="list-style-type: none"> To develop new volunteer programmes for people with disabilities To train the child volunteer team to perform during variety shows for the elderly or needy To explore community programmes for young people
Partner with NGOs and Green Groups to Carry out Community Activities	<ul style="list-style-type: none"> To work with NGOs to identify impactful community programmes that benefit society To explore new partnership programmes with green groups To continue supporting NGOs with donations, fundraising, sponsorship and volunteering

9 KEY STATISTICS

This section presents an overview of our 2017 key performance of the Group, with a focus on economic, safety, environmental, employee and social aspects. This quantitative data has been selected from the Global Reporting Initiative (GRI) Sustainability Reporting Standards, the Environmental, Social and Governance Reporting Guide of The Stock Exchange of Hong Kong Limited, and other key performance indicators.

Economic Performance

	Unit	2017	2016	2015	2014	2013
Operating						
Customers (Hong Kong gas business)	Million	1.88	1.86	1.84	1.82	1.80
Customers (City-gas business)	Million	25.4	23.1	20.9	19.0	17.3
Customers (Water business)	Million households	1.24	1.19	1.12	1.04	0.97
Town Gas Sales (Hong Kong)	Million MJ	29,049	28,814	28,404	28,835	28,556
Gas Sales (Mainland China)	Billion cubic metres	19.5	17.1	15.5	15.2	13.4
Water Sales (Mainland China)	Million tonnes	467	455	433	424	414
Financial						
Revenue	HK\$ million	32,477	28,557	29,591	31,615	28,246
Manpower costs	HK\$ million	3,035	2,955	2,844	2,706	2,282
Capital Expenditure	HK\$ million	6,141	6,257	6,356	6,365	5,984
Taxation	HK\$ million	1,750	1,576	1,727	1,771	1,655
Dividends	HK\$ million	4,896	4,451	4,047	3,680	3,346
Profit attributable to shareholders	HK\$ million	8,225	7,341	7,302	7,109	6,854

Safety Performance

	Unit	2017	2016	2015	2014	2013
Inspection and Training						
Trench inspections	Number (sites)	10,897	12,606	14,044	16,390	13,675
Regular safety inspections – home visits	Number	1,391,156	1,312,275	1,236,796	1,247,727	1,021,089
Community safety exhibitions	Number	12	12	13	12	12
Community safety talks	Number	7	10	14	10	5
In-house safety training	Number of man-hours	20,208	19,482	17,558	19,726	17,822
External staff safety training	Number of man-hours	6,205	4,612	4,991	6,385	6,181
Occupational Safety and Health¹						
Accidents – all industrial injuries	Number	10	13	19	14	15
Reportable accidents	Number	10	12	15	12	12
Accident frequency rate	Number of accidents per 100,000 man-hours	0.15	0.19	0.29	0.22	0.24
Occupational diseases rate	Number of incidents per 100,000 man-hours	0	0	0	0	N/A
Accident incidence rate	Number of reportable accidents per 1,000 employees	3.4	4.1	5.3	4.4	4.9
Traffic accident injury rate	Number of traffic accident injuries per 100 vehicles	2.31	3.36	1.68	1.68	1.47
Industrial injury man-days lost	Number of man-days	496	576	596	132	194
Fatal accidents	Number	0	0	0	0	1

Employees

	Unit	2017	2016	2015	2014	2013
Total Headcount						
Hong Kong gas business	Number	2,022	2,019	1,999	1,972	1,966
All Hong Kong staff²						
Full-time	Number	2,388	2,392	2,380	2,331	2,310
Part-time	Number	94	116	110	79	61
By gender						
Male	Number	1,877	1,887	1,882	1,847	1,825
Female	Number	511	505	498	484	485
Ratio of Male to Female – Senior management	Ratio	3.4	3.4	3.2	3.5	3.5
Ratio of Male to Female – Middle management	Ratio	3.0	3.2	3.3	3.6	3.7
Ratio of Male to Female – General staff	Ratio	4.4	4.3	4.3	4.0	3.9
By age group						
<26	Number	123	126	118	106	116
26-35	Number	395	372	385	388	364
36-45	Number	475	487	491	499	563
46-55	Number	861	909	940	947	915
>=56	Number	534	498	446	391	352
By employee category						
Senior management	Number	236	239	239	230	225
Middle management	Number	843	831	820	768	744
General staff	Number	1,309	1,322	1,321	1,333	1,341
Turnover Rate						
Average turnover of workforce (Hong Kong gas business)	%	5.7	5.8	4.8	6.4	5.1
Average turnover of workforce (all Hong Kong staff)	%	6.4	6.7	5.8	7.5	6.0
By gender						
Male	%	5.6	6.0	4.9	6.6	4.6
Female	%	9.3	9.0	9.4	10.9	11.4
By age group						
<26	%	19.3	21.3	26.8	22.5	33.8
26-35	%	13.0	14.8	14	18.6	10.4
36-45	%	7.1	6.1	3.6	6.6	4.5
46-55	%	2.6	3.4	2.4	3.4	2.7
>=56	%	4.1	3.4	2.9	3.2	3.6

	Unit	2017	2016	2015	2014	2013
New Recruitment						
Total	Number	198	200	203	182	174
By gender						
Male	Number	148	144	145	140	111
Female	Number	50	56	58	42	63
By age group						
<26	Number	53	56	48	37	50
26-35	Number	74	71	64	73	70
36-45	Number	42	34	36	37	22
46-55	Number	15	22	21	25	26
>=56	Number	14	17	34	10	6
Employee Performance and Career Reviews²						
Total	%	85.2	85.6	85.8	85.5	86.1
By gender						
Male	%	86.4	87.1	88.8	87.1	89.0
Female	%	80.8	79.8	74.5	79.8	75.3
By employee category						
Senior management	%	85.2	82.0	82.8	83.9	85.3
Middle management	%	82.9	92.4	90.1	91.8	93.4
General staff	%	80.2	81.9	83.6	82.2	82.2
Training Hours (HSE training excluded)²						
Total training hour	Hours	27,907 [#]	15,753	19,069	22,611	32,186
Average training hour	Hours	10.5 [#]	6.6	8	9.7	13.9
Anti-corruption training hour	Hours	187.8	200	300	155	128.75
By gender (Average training hours and percentage of employees received training)						
Male	Hours (%)	11.2 (53.3) [#]	5.8 (43.3)	7.6 (40.3)	8.4 (65.7)	13.4 (66.0)
Female	Hours (%)	7.8 (61.5) [#]	9.6 (70.3)	9.4 (44.6)	14.7 (67.9)	15.8 (63.1)
By employee category (Average training hours and percentage of employees received training)						
Senior management	Hours (%)	5.9 (50.0) [#]	9.5 (73.2)	12.6 (75.1)	14.1 (87.5)	32.6 (96.4)
Middle management	Hours (%)	7.9 (60.1) [#]	10.7 (63.4)	8.7 (53.7)	12.8 (67.6)	21.9 (75.4)
General staff	Hours (%)	13.2 (53.0) [#]	3.5 (35.6)	6.8 (27.7)	7.1 (62.1)	6.4 (54.2)

Remarks:

Included trainings conducted by both internal departments and external organisations.

Environmental Performance

Resource Consumption³

	Unit	2017	2016	2015	2014	2013
Towngas Headquarters						
Electricity	GJ	20,921	21,383	21,277	21,696	22,934
Town gas	GJ	2,020	2,217	1,477	1,353	1,586
Water ⁴	Cubic metres	15,411	15,631	15,791	16,735	14,006
Gas Production Process (Heating fuel, electricity and water used)						
Electricity	GJ	137,142	150,251	145,797	141,937	132,257
Naphtha	GJ	628,760	616,538	598,935	602,016	785,476
Natural gas	GJ	5,033,398	5,069,673	4,934,059	4,973,358	4,862,842
Synthetic natural gas and landfill gas	GJ	584,126	481,963	550,926	527,790	519,401
Town gas	GJ	160,011	168,086	156,196	164,020	168,868
Diesel	GJ	1,373	1,365	1,452	1,458	1,304
Water ⁴	Cubic metres	1,094,363	1,162,611	1,091,897	1,041,582	1,058,641
Vehicle Fleet ⁵						
Unleaded petrol	GJ	12,679	14,518	15,662	17,254	17,569
Diesel	GJ	11,316	10,172	9,420	8,144	7,003
Packaging Material Use						
Carton	Tonnes	889	822	866	824	798
Wood	Tonnes	18	29	25	24	23
Plastic	Tonnes	0.7	0.9	1.0	1.0	1.0

Resource Conservation

	Unit	2017	2016	2015	2014	2013
Naphtha saved (Gas production) ⁶	GJ	552,251	449,349	519,160	492,844	477,459
Town gas saved (Gas production) ⁶	GJ	31,875	32,614	31,766	34,945	41,942
Effluent water saved (Gas production) ⁷	Cubic metres	117,090	118,187	112,159	121,504	127,379
Amount of raw water collected by the rainwater harvesting system (Tai Po Plant)	Cubic metres	3,805	4,125	3,663	N/A	N/A
Grid electricity saved through PV Panels	GJ	313	311	312	313	312
Electricity saved (Towngas Headquarters and Ma Tau Kok office) ⁶	GJ	20,080	19,919	19,557	18,581	17,396

Emissions

	Unit	2017	2016	2015	2014	2013
Carbon Dioxide (CO ₂)	Daily average in metric tonnes (metric tonnes per million MJ of town gas)	915 (11.64)	907 (11.55)	898 (11.82)	904 (11.70)	931 (12.09)
Nitrogen Oxides (NO _x)	Daily average in kg (kg per million MJ of town gas)	311 (4.00)	314 (4.00)	292 (3.84)	310 (4.02)	353 (4.59)
Sulphur Oxides (SO _x)	Daily average in kg (kg per million MJ of town gas)	1.9 (0.02)	1.4 (0.02)	1.3 (0.02)	1.4 (0.02)	1.2 (0.02)
Greenhouse gases (Production equipment) ⁸	Tonnes CO ₂ e	358,417	356,871	355,428	355,880	364,800
CO ₂ reduction equivalent to electricity saved (Towngas Headquarters and Ma Tau Kok office) ⁹	Tonnes CO ₂ e	3,904	3,873	3,803	3,613	3,376

Effluent and Waste

	Unit	2017	2016	2015	2014	2013
Treated wastewater discharged to marine water bodies	Daily average in cubic metres	62	79	47	N/A	N/A
Wastewater discharged to sewage	Daily average in cubic metres	258	241	239	N/A	N/A
Total wastewater discharged	Daily average in cubic metres (cubic metres per million MJ of town gas)	319 (4.10)	321 (4.10)	287 (3.77)	307 (3.97)	323 (4.2)
Non-hazardous waste landfilled ¹⁰	Tonnes	176.9	150.4	123.6	129.5	126.7
Non-hazardous waste recycled ¹¹	Tonnes	199.4	125.7	210.0	N/A	N/A
Hazardous Waste¹²						
Chemical waste generated	Daily average in kg (kg per million MJ of town gas)	193 (2.50)	167 (2.10)	49 (0.64)	83 (1.07)	150 (1.94)
Spent catalyst collected for metal recovery	Tonnes	11.4	18.5	11.7	23.6	39.7
Spent lube oil recycled	Tonnes	44.8	45.6	13.2	25.2	46.7
Others						
Metal chemical drums reused	Number	59	41	18	15	90
Plastic chemical drums reused	Number	649	1,021	1,927	1,030	914
Scrap metal recycled – old gas appliances	Tonnes	1,803	1,218	1,265	1,229	1,278

	Unit	2017	2016	2015	2014	2013
Scrap metal recycled – from construction and maintenance of plant and pipelines	Tonnes	92	34	77	23	28
PE pipe recycled	Tonnes	24.8	30.9	23.6	17.8	12.6
Gas appliances polyfoam packaging materials avoided	Tonnes	1.46	1.56	1.56	1.29	1.31

Social Performance

Customer Service

	Unit	2017	2016	2015	2014	2013
Customer compliments	Number	6,017	6,930	6,766	5,894	6,026
Customer complaints	Number	10	13	6	8	16

Community Involvement

	Unit	2017	2016	2015	2014	2013
Employees participating in voluntary services	Number	852	830	859	994	918
Voluntary service hours (including employees and customers)	Hours	86,455	75,588	75,369	79,551	72,025
Charitable donations made by the Group	HK\$ million	5.1	7.1	7.1	34.2	58.6

Remarks:

- 1) Towngas' employees and the employees of its subsidiaries only.
- 2) A revised scope was adopted in 2016. The scope includes the hired employees of companies with business in Hong Kong (i.e. Towngas, Towngas Enterprise Limited, ECO Stations, TGT and U-Tech). The figures have been adjusted accordingly.
- 3) The following conversion factors are used 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 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 indicator 'Water saved' was replaced by 'Effluent water saved' in 2016. The figures have been adjusted accordingly.
- 8) The emission factors of GHG 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. The emissions were adjusted to exclude the CO₂ emissions from the use of landfill gas.
- 9) 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).
- 10) Non-hazardous waste landfilled refers to the refuse, wood pallets and construction waste collected from Towngas Headquarters and the Tai Po Plant.
- 11) Non-hazardous waste recycled refers to the plastics, papers, paper cartons and metals collected to recycling contractors. Apart from these waste categories, we also recycle other non-hazardous waste, such as used red packets and cartridges, on a regular basis.
- 12) 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 to licensed recyclers on a regular basis.



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:

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