

# Sustainability

## Thinking Sustainably, Acting Responsibly

We have rolled out a series of Environmental, Social and Governance (ESG) initiatives that create shared value for our stakeholders in the community and help to build a sustainable future.









# Sustainability

In 2021 we not only enhanced our ESG policies and practices. We also made a concerted effort to explore innovative new products and solutions that contribute to a more sustainable world for the people we serve and future generations.

## Securing a Sustainable Future

We strengthened our commitment to making Towngas an even more sustainable company during the year, both in Hong Kong and the Chinese mainland. To guide us in this transformation, we updated our Group ESG Policy along with 23 relevant policies that govern how

we deal with climate change, social investment, stakeholder engagement, sustainable purchasing and corporate governance.

As we began making the transition from a provider of gas-related products and services into a

supplier of low carbon smart energy, we continued to invest in green initiatives under our Towngas Green Bond Framework. These included four project categories, ranging from landfill gas utilisation to the production of low carbon, renewable energy.

### 2021 Sustainability Awards

**Greater China Business Sustainability Index**  
**Greater Bay Area Business Sustainability Index**  
**Hong Kong Business Sustainability Index**

**RANKED FIRST  
EXEMPLAR LEVEL**

Centre for Business Sustainability,  
The Chinese University of Hong Kong  
Business School

**Hong Kong Sustainability Award**  
**GRAND AWARD (LARGE ORGANISATIONS)**  
**Most Respected Organisation Award**  
The Hong Kong Management Association

**BOCHK Corporate Environmental Leadership Awards 2020**  
**MANUFACTURING SECTOR – GOLD AWARD**  
**SUSTAINABLE BUSINESS AWARD**  
Federation of Hong Kong Industries

# Launch of the First TERA-Award Competition



In June 2021, we joined State Power Investment Corporation Limited (SPIC) to organise the first TERA-Award competition under the theme of “Exploring zero-carbon innovations for the future”. By launching this competition, we are encouraging organisations across the world to submit new smart technology ideas and research results that contribute to global carbon reduction. With a first prize of US\$1 million, the TERA-Award competition attracted about 200 submissions from 23 countries and regions in Asia, Europe, the United States and South Africa. The submissions covered a wide range of innovations, such as energy supply, energy demand, green transport, energy internet and more. Together with SPIC, we will invest in these ideas for a greener world and help bring them to life.

## Prioritising the UN Sustainable Development Goals

The 17 Sustainable Development Goals (SDGs) of the United Nations call on all member states to overcome different challenges and work towards a greener, more equitable world. Our support for

the SDGs reflects our commitment to combat climate change and is part of our contribution to the carbon reduction efforts of Hong Kong and the Chinese mainland. We have selected four SDGs that are most relevant to Towngas and will have the greatest impact on achieving our carbon reduction targets.





### **We have set new group level carbon reduction targets.**

In 2021 we set two new targets for cutting our operational GHG emissions by 10 per cent by 2025 (as compared with the 2020 baseline) and reducing 10 million tonnes of GHG emissions for the environment per year by 2025.

### **We are entering a new era of smart energy.**

Towngas has developed a smart energy business with a focus on solar energy for zero-carbon industrial parks in the Chinese mainland. Services include energy management, energy storage, energy trading and carbon trading.

In June 2021 Towngas joined representatives of other large companies in Hong Kong for the launch of Asia's first four-year action research programme: Partnership for Sustainability Leadership in Business. Organised by the Centre for Civil Society and Governance of The University of Hong Kong, the programme encourages large corporations to share best practices in sustainability with medium-sized enterprises in a bid to co-create sustainable value chains in Hong Kong and the region.

We also held the Towngas "Innovation X Energy Transition" Sustainability Conference in November for industry experts and academics to share their insights on how climate change can be addressed globally through the use of innovative technologies. Over 1,000 participants attended the event onsite and online. Moreover, a series of in-house videos were produced to raise awareness of ESG management among staff and contractors.

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### **Carbon Neutrality Commitment**

Towngas has committed to become carbon neutral through energy transition and innovation, including the development of renewable energy, waste-to-energy, green hydrogen, efficiency improvement, carbon management, and other collaborative projects with universities and research institutes.

Natural gas is often regarded as the cleanest readily available fossil fuel. It is commonly used as a substitute for coal and petroleum to help reduce air pollution and carbon emissions. We believe our gas businesses can play a significant role in achieving the national Dual Carbon goals.

We can contribute to the country's carbon reduction efforts by targeting our huge commercial and industrial customer base with renewable energy products and services. Through our collaboration with StarFive and Winicssec, we are developing smart energy solutions based on RISC-V architecture. Additionally, we have set up a distribution partnership with EnerVenue, an energy storage company based in the United States, to deploy their metal-hydrogen renewable storage solutions in our smart energy platforms. As part of our long-term decarbonisation plan, we are exploring the use of hydrogen as a clean fuel for buses and heavy-duty vehicles in Hong Kong.

In another initiative to reduce GHG emissions, we signed the Chinese City-Gas Enterprise Methane Emission Control Proposal in October. Methane is a powerful greenhouse gas as it is 28 times as warming as carbon dioxide in the upper atmosphere. By signing the proposal, the gas companies including ours pledged to carry

out measures and develop new technologies to reduce methane emissions. We also plan to conduct a methane leakage assessment of our gas pipelines in the year ahead with a local university to obtain a better overview of potential leakage problems in our networks.

During the year, the Group incurred over HK\$230 million in total research and development related expenditures in Hong Kong and the Chinese mainland.

## Building Climate Resilience

The Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD) has developed recommendations for voluntary climate-related financial disclosures. Following a thorough assessment in 2020 of the transition risks and opportunities under different climate scenarios, we began a physical risk scenario analysis to help develop plans for mitigating



### Our GHG emissions are lower than you think.

With landfill gas, natural gas and naphtha as feedstock, emissions from our gas production plant are about 1 per cent of all GHG emissions in Hong Kong.



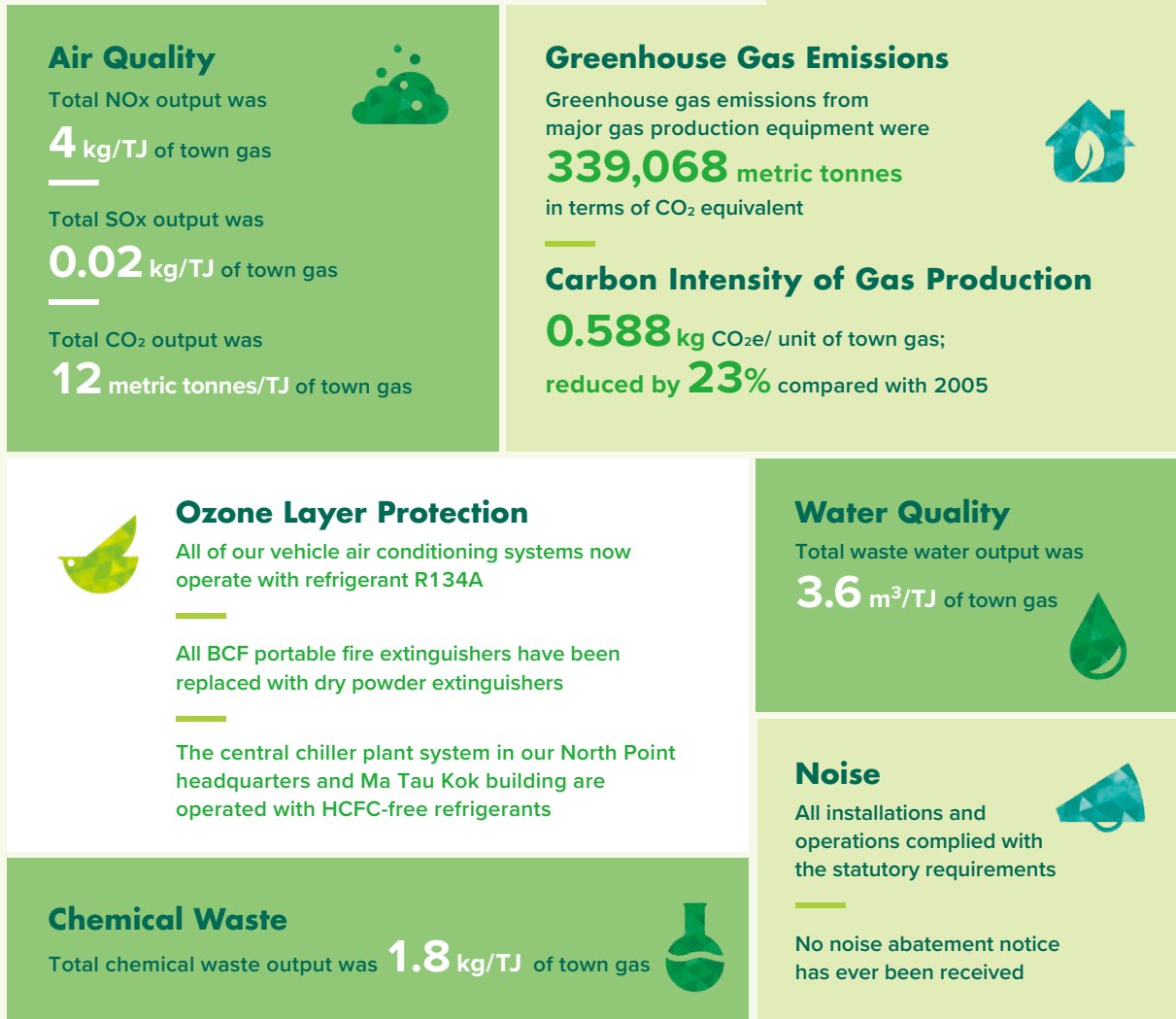
### Solar power for our facilities in Hong Kong

We have installed solar photovoltaic (PV) systems at our production plant, office building and offtake stations, which are now generating over 300,000 kilowatt hours of clean energy per year. We achieved even better performance with the adoption of flexible panels, sun trackers and bifacial panels for the second phase of our PV system completed during the year.



## 2021 Key Environmental Performance (Hong Kong)

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



the risks and building resilience strategies. We are also increasing our transparency and disclosing the climate risks and opportunities we face, in line with expectations by global stakeholders.

In response to the Intergovernmental Panel on Climate Change’s Fifth Assessment Report, we have enhanced our climate change physical risk assessment with a scenario analysis covering the years up to 2100. Most of our

facilities that are likely to be affected have already had flood gates and water pumps installed to minimise flooding risks; other measures have also been taken to prevent climate-induced hazards such as extreme temperatures and wind.





## Towngas vehicles are going electric.

In 2021 we replaced our fleet in Hong Kong with 14 electric vehicles (EVs) and installed 30 chargers in our facilities. Our goal is to replace our petrol sedans with 60 or more EVs by the year 2025.

## Promoting Green Awareness

We continued to support green groups in Hong Kong by raising public awareness of environmental issues and a green lifestyle.

- Sponsorship of The Green Earth's Plantation Enrichment Project to enhance the biodiversity of plantations in country parks
- Sponsorship of WWF's Earth Hour to switch off lights for one hour to combat climate change
- Sponsorship of The Green Council's Green Cooking Competition
- Partnership with Green Monday to promote green diets, the Jockey Club "Field So Good" Community Composting Programme to promote organic planting, and St James' Green Ladies for a second-hand clothes sale

Under the theme of "Green Nature", we invited employees of our mainland companies to adopt greener practices in their daily lives. Nearly 130 project companies were involved in this activity. For Towngas China Green Planting

Day, nearly 90 companies joined us in planting more than 20,000 trees; for Earth Hour, more than 110 project companies took part by switching off their lights for one hour to save over 22,000 units of electricity.

To increase awareness of the need for conservation, we encouraged our staff and their families to take part in Towngas China Green Planting Day.





# Serving the Community

As a public utility, we have an obligation to the communities we serve. In 2021 we continued to provide caring services, despite the challenges of the pandemic, that improve public health, social integration and personal wellbeing.

## Love on Delivery Programme, Third Phase

Through the Love on Delivery programme organised with the Christian Family Service Centre, we are addressing the needs of underprivileged families in financial distress because of the pandemic. During the year, we distributed 18,960 fresh food packs to 830 families in need.

## 2021 Caring Initiatives



### Towngas Concession Scheme

benefiting the elderly, people with disabilities, and single-parent and low-income families

Total gas concessions:  
**HK\$26 million**

Total beneficiaries:  
**Over 44,000 households**



### Festive foods for the community

**44,800** bowls of soup  
**100,000** rice dumplings  
**140,000** mooncakes



### Donations to support community activities

**HK\$3 million**



### Number of volunteer hours

Hong Kong:  
**14,122 hours**  
Mainland Utilities:  
**578,586 hours**



# Meet our caring Towngas volunteers



Despite their often busy work schedules, our volunteers show their care by donating their time and energy to help those in need. During the year, the Towngas Volunteer Service Team held a series of festive programmes for over 1,200 elderly people. In addition to a virtual celebration during the Chinese New Year, the team also collaborated with the Hong Kong Housing Society to organise caring events, such as an online and offline variety show for Father's and Mother's Days, an indoor sport event "Ohlympics", and a Mid-Autumn-themed event with singing performances, game booths and lantern riddles.


## ***Chef Anchor 2.0***

Since 2017 we have been running the Chef Anchor programme, Hong Kong's first procedural cooking training programme with a focus on Mild Cognitive Impairment (MCI) patients. In 2021 we included the carers of these patients who may find it a challenge taking care of MCI family members. Towngas

volunteers offered help in all cooking classes for a total of 90 participants.

## ***Workshops for Carers***

Our volunteers, including our Towngas Cooking Centre instructors, showed the carers of patients with swallowing difficulties how to make soft-diet dumplings. The workshop was held with the Hong Kong



**Our gas meters  
are getting  
smarter than ever.**

We offered free installation of a new smart meter for qualified customers who are visually impaired or wheelchair users. Now these customers no longer have to rely on family, friends or welfare organisations to help with their meter readings as they can be automatically taken by the smart meter via Wi-Fi.



Sheng Kung Hui Pilot Scheme on Multi-disciplinary Outreaching Support Teams for the Elderly (Kowloon Central Cluster). We also joined the Hong Kong Anti-Cancer Society to show carers how to cook a nutritious meal for patients with lung cancer — now the number one killer in Hong Kong.





Together with St James' Settlement, we organised a **horticultural therapy programme** to offer physical, mental and emotional support for students with special education needs in Hong Kong. Accompanied by Towngas volunteers, 24 primary students took part in a series of workshops, including an experiential workshop on organic farming, led by professional therapists.

### Mainland Caring Initiatives

As in past years, our volunteers enthusiastically took part in activities that helped the disadvantaged, schools, the disabled and veterans, as well as other people in need in the community.

### Towngas Gentle Breeze Movement

In addition to donating school supplies, we set up a Towngas China Charity Library at a primary school in Tongling, Anhui province — our 43rd school so far. Schools in 14 provinces and municipalities have been receiving teaching aids since the campaign's inception in 2013, with more than RMB4.5 million donated to over 9,000 students.

### Rice Dumplings for the Community

Around 70 project companies and over 1,300 volunteers participated in this programme to deliver rice dumplings and festive gifts during the year.

### Bauhinia Action Initiative

We met the basic needs of underprivileged families in 30 cities across the country, including donations of our Bauhinia appliances and waivers of the installation fee.



Through the Towngas Gentle Breeze Movement, we donated teaching supplies to a primary school in Tongling, Anhui province and set up a Towngas China Charity Library.

# Ensuring Health and Safety

To protect our employees, customers and the general public, we continued our work of promoting health and safety across our operations and carrying out audits to identify and rectify hidden hazards in our workplaces.

In 2021 we updated our preparedness plan for infectious diseases, published the latest information on COVID-19 for our staff and contractors, and provided protective equipment to all frontline staff. Other sanitation measures introduced in 2020 remained in force. We also continued to

encourage our employees to get vaccinated. By year end, 97 per cent of the staff from our mainland project companies and 92 per cent of our staff from Hong Kong had been vaccinated; the remaining number were unable to be vaccinated due to health reasons. To promote public health, we launched a lucky draw with HK\$3 million in prizes to encourage Hong Kong citizens to get vaccinated.

During the year, we completed the upgrade of our occupational health and safety management system for accreditation under ISO 45001.

It covers six areas, including occupational health and safety (OHS), workplace infection control, gas production safety, transmission safety, mental health and welfare, as well as business risk management.

Nine occupational safety and health awards and recognition certificates were received at the 20th Hong Kong Occupational Safety and Health Award competition, organised by the Occupational Safety & Health Council.

## The 20th Hong Kong Occupational Safety and Health Awards



### Safety Performance Award – Outstanding Award

- | Towngas' Gas Production |
- | U-Tech Engineering Company Limited |
- | P-Tech Engineering Company Limited |
- | Towngas Telecommunications Company Limited |
- | ECO – LPG Filling Stations |

### OSH Enhancement Program Award – Gold Award OSH Innovative Award – Gold Award

- | Intelligent Approach to Gas Services |
- | Riser Safety Management System |

### OSH MVP Award 15 Years Plus

### OSHC Strategic Partner Certificate







Our regular safety inspection programme helps us maintain the highest standard of customer safety.

## Safety Innovation in Hong Kong

We ensure our gas network remains safe through the use of a sophisticated Supervisory Control and Data Acquisition system, which monitors and controls our pressure-regulating stations and network. For more accurate and efficient gas leak detection and pipe inspections, we employ long distance laser guns equipped with cameras.

New gas safety innovations in 2021 included an Internal Conditioning Robot that applies surface finishing and internal pipe coatings for steel weld seams; new video foam pigs for carrying out in-pipe inspections; and a high-pressure water jet system for trenchless excavations in mini tunnelling projects. To improve employee and contractor safety, we developed VR technology with a Light Emitting Diode (LED) wall, which provides simulations of working at height,

underground pipe repairs and industrial accidents.

In 2021 we maintained our vigorous regime of regular gas leakage surveys and replacement of ageing pipes to ensure the safety of our gas network. Our inspections also included the construction projects of third party contractors. These construction activities had been seriously affected at the early stage of the COVID-19 pandemic in 2020 but have been gradually resumed since then. The number of leaks in 2021 was kept at low level, with a reduction of 6 per cent as compared with 2020.

For our Gas Riser Artificial Intelligence System developed in 2020, we received the Digital Transformation Award – Gold Award from the Hong Kong Association for Customer Service Excellence during the year, recognising our efforts to safeguard the gas supply system.

## Continuous Safety Improvements on the Mainland

To ensure the highest level of gas safety on the mainland, the general managers of our project companies maintained their twice-a-month safety inspections in 2021. Our audit teams also carried out 105 scheduled or unannounced safety and risk management audits. The average scores of the audits increased compared with last year, and new KPIs were set based on the audit results.

In addition, regular safety inspections were conducted for all our chemical plants. To help our staff identify hidden dangers and unsafe workplace conditions, we launched a Hazard Identification and Mitigation Programme. In addition, we organised experience sharing workshops and webinars on safety risks in the frontline operations of our chemical plants.

As a new version of the national law on workplace safety came into effect in 2021, we held workshops to brief all project companies on the changes. To increase safety awareness among staff, we also organised competitions on safety knowledge.

No company-liable accidents were reported in 2021, and the number of cases per 100 km of gas pipe network leakages declined by 28.8 per cent compared with the previous year.

# Building a Sustainable Workforce

As staff retire and leave the company, it is critical for us to train a new generation of employees so that we can ensure a sustainable talent pipeline. We address this challenge common to all companies by making Towngas an attractive place to work, providing internal and external training opportunities and encouraging optimal work-life balance.

## An Equal Opportunity Employer

We value diversity and inclusion within our workforce and make every effort to attract and retain women, the disabled and minority groups. We now have 14 disabled employees in our workforce. About 25 per cent of senior staff

are female, and nearly half of our university graduate intakes are also female.

## Adjusting to COVID-19

Measures to keep our people safe during the pandemic included holding job interviews online instead of face-to-face; implementing an online learning platform; and creating a new home-based

part-time Customer Services Officer role for parents with children. We recruited working mothers under this latter arrangement.

We also offered a wide range of activities to help staff stay physically and mentally fit. These included online yoga, Pilates and fitness classes, health webinars and assessments, talks and recommendations on health products.

## We made it easier for our staff to get vaccinated.

We held talks on the safety and effectiveness of the vaccines, offered free pre-vaccination check-ups, released staff early on their vaccination days and provided two days of leave after three vaccine doses.

The Company's management and department heads visited frontline colleagues and contractors working outdoors and presented them with cold drinks.





2021 Human Resources Awards

**Award for Excellence in Training & Development**  
**GOLD AWARD**  
**Excellence in Cultural Change Award**  
 The Hong Kong Management Association

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**Excellence in Practice Award**  
 Association for Talent Development, USA

**2021 Randstad Employer Brand Award**  
**Hong Kong's Most Attractive Employer**  
 SECOND RUNNER-UP  
 Randstad

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**Equal Opportunity Employer Recognition Scheme – Equal Opportunity Employer**  
 (Gender Equality, Equality for Diverse Abilities and Family Status Equality)  
 Equal Opportunities Commission

**Developing a Talent Pipeline**

To ensure we have a sufficient pool of well-trained staff, we hold regular talent reviews that include a thorough discussion of our talent succession needs.

In 2021 we organised the 18-month Young Towngas Leadership Competencies Acceleration Programme (YTLC+) for young staff. During the programme, YTLC+ members will participate in a series of training programmes, mentoring, action learning projects and company visits. Additionally, more than 200 colleagues from Hong Kong and the Chinese mainland attended this year's Towngas Management Programme, which teaches supervisors and managers how to manage their teams for better performance.

The Towngas Engineering Academy provides professional training that supports our business by reinforcing our reputation for service excellence and gas safety and

attracts young people to the industry. We also work with the Vocational Training Council and local universities to help our technical employees acquire recognised qualifications, such as the DVE (Diploma of Vocational Education) in Gas Services Engineering and the Professional Diploma in Gas Engineering. These programmes can also lead to higher academic qualifications, paving the way to professional engineering degrees.

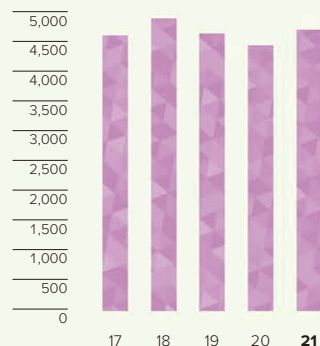


**2021 Average training hours per employee**

Hong Kong:  
**21.6 hours**  
 Mainland Utilities:  
**51.5 hours**

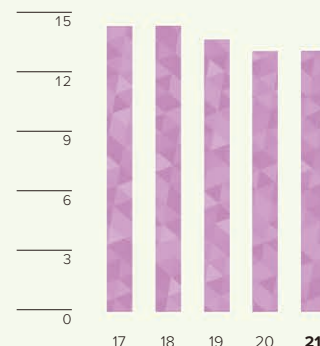
**Revenue per Employee**

Company (HK\$ thousand)



**Town Gas Sales per Employee**

Company (million MJ)



# Creating Long-term Value for our Stakeholders

Towngas is fully committed to delivering enhanced value for our stakeholders over the long term by addressing their interests and needs. As combating climate change and attaining carbon neutrality are a global priority, we believe that our sustainable

business strategy focusing on ESG profiles will lead to more robust growth and investment outcomes. This commitment is also reflected in our corporate culture and the way we develop our human capital and promote innovation.

With our strong commitment to protecting the environment, we are confident in our ability to fulfil Towngas' vision of being "Asia's leading clean energy supplier and quality service provider, with a focus on innovation and environmental-friendliness."

## 2021 Key Engagement Initiatives



### Employees

- Annual Quality Festival, including online seminars and company visits
- A Calligraphy Design Competition on the Chinese character "Courtesy", with winning artwork used on face masks for staff
- Workshops and seminars on the environment, health and safety



### Contractors and Suppliers

- Selected key suppliers verified for their ISO14064 greenhouse gas emission inventories
- CSR self-assessments completed by over 90 per cent of key suppliers in Hong Kong
- Workshops and seminars on environment, health and safety



### Customers

- Online channels such as our website, social media platforms and the Towngas App
- Customer Focus Team and online safety talks
- Bi-monthly surveys on the performance of our services and products



### Local Communities

- Green partnerships and sponsorship programmes
- Charity and community programmes
- Towngas Volunteer Service Team



### Investors

- Annual General Meeting
- Investor and securities analyst briefings for annual and interim results
- Conferences and meetings with investors, securities analysts and credit rating agencies
- Local and overseas roadshows