



# 港華智慧能源有限公司 Towngas Smart Energy Company Limited

(Incorporated in the Cayman Islands with limited liability)  
(Stock Code: 1083)

ENVIRONMENTAL, SOCIAL AND  
GOVERNANCE REPORT  
2024

## TOWARDS A GREENER FUTURE





## VISION

To be a leading clean and smart energy supplier, with a view to creating a sustainable world driven by green energy.



## MISSION

To provide our customers with safe, reliable, clean and smart energy along with quality services, while committed to fulfilling our social responsibility, ensuring sustainable business growth, enhancing our shareholders' return on investment, and bringing long-term benefit for our planet, society, and stakeholders.



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# About This Report

## Reporting Approach

Towngas Smart Energy Company Limited and its subsidiaries (the Group, Towngas Smart Energy or We) aims to enhance our Environmental, Social and Governance (ESG) performance and disclosure quality. To comprehensively elaborate on the Group's ESG performance for this year, this ESG Report (this Report) has been prepared in compliance with the reporting principles of materiality, quantitative, balance, and consistency.

## Reporting Scope

This Report covers the ESG performance and development strategies of the Group during the period from 1 January 2024 to 31 December 2024 (the year) and is in line with the Group's financial year.

## Editorial Guidelines

This Report was prepared in accordance with Appendix C2: Environmental, Social and Governance Reporting Guide (ESG Reporting Guide) under the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (SEHK), and the Global Reporting Initiative (GRI) Universal Standards 2021.

Our disclosures are benchmarked against the following reporting standards or frameworks:

- IFRS® Sustainability Disclosure Standards – IFRS S1 General Requirements for Disclosure of Sustainability-related Financial Information and IFRS S2 Climate-related Disclosures published by the International Sustainability Standards Board (ISSB)
- Sustainability Accounting Standards issued by the Sustainability Accounting Standards Board (SASB) for the Gas Utilities & Distributors sectors
- Final Report: Recommendations of the Task Force on Climate-related Financial Disclosures issued by the Task Force on Climate-related Financial Disclosures (TCFD)
- Recommendations of the Taskforce on Nature-related Financial Disclosures issued by the Taskforce on Nature-related Financial Disclosures (TNFD)
- GRI 11: Oil and Gas Sector Disclosure 2021
- China Enterprise Reform and Development Society and CSR Cloud Research Institute (責任雲研究院) Guidelines on Corporate Social Responsibility Reporting for Chinese Enterprises (CASS-ESG 6.0)
- ISO 26000 Guidance on Social Responsibility of the International Organisation for Standardisation

## Independent Assurance

This year, Towngas Smart Energy has engaged the British Standards Institution (BSI) as a third-party organisation to conduct independent assurance on the content of this Report. For detailed information, please refer to page 159.

## Acknowledgements

The Group's ESG work relies on the support and engagement of all stakeholders. We extend our sincere gratitude to all stakeholders who contributed to this Report, participated in the questionnaire surveys, and joined the focus group interviews. We look forward to continuing our collaboration in promoting sustainable development.

## Report Access and Feedback

The full version of this report is available on the Towngas Smart Energy website and the website of the SEHK. Your opinions of this Report can be shared with us by completing the [online questionnaire](#) or emailing us at [esg@towngas.com](mailto:esg@towngas.com).

# Board Statement

Towngas Smart Energy's Board of Directors (the Board) serves as the highest governance body providing oversight of material ESG and climate change issues and associated risks on an annual basis. Regular meetings are held to evaluate and review the Group's ESG performance, ensuring integrated and comprehensive management of ESG.

In addition, we place significant importance on the business impacts on various stakeholders while closely monitoring the potential implications of external environmental changes on our operations. Through in-depth stakeholder communication and engagement, we have clearly established priorities for ESG issues, with regular review mechanisms implemented to respond flexibly and resiliently to current global challenges.

Looking ahead, the Group is committed to maintaining stable business development and enhancing market competitiveness. We will consider the aspirations and expectations of all stakeholders while integrating sustainable development into every facet of our operations, so as to create a better tomorrow together with all parties.



# Chairman's Statement



As we celebrated the 75th anniversary of the founding of the People's Republic of China in 2024, we reflected on the remarkable strides made in national energy development. This milestone serves not only as a testament to our history but also as a beacon for our future – a future rapidly transforming into a greener, low-carbon landscape, anchored by energy security and driven by the “dual carbon” goals. At Towngas Smart Energy, we are fully embracing this transformative journey. By seizing favourable opportunities for development, we are not only strengthening our city-gas business through the safe and reliable gas supply but also expanding our smart energy business to contribute to the growth of the entire industry chain. Together, we aspire to be a leader in the green and smart energy sector.

The release of the white paper “China's Energy Transition” by the country in August 2024 marked a pivotal moment for our industry. This document highlighted the essential shift from fossil fuels to non-fossil alternatives, towards overcoming resource limitations and achieving carbon peak and neutrality. This wave of technological and industrial transformation is an exciting opportunity to cultivate new quality productive forces, promote sustainable living and production practices, and ultimately drive high-quality economic growth.

## Fostering Energy Transition and Green Production

As the transition to green and low-carbon energy consumption accelerates, total energy consumption across the Chinese mainland rose by 4.2% in 2024, compared to the previous year. Notably, the share of clean energy steadily increased to 28.2%, reflecting a 1.8% year-on-year improvement. Throughout the year, delegations from the National Energy Administration visited our Group twice to gain insights into our development progress and achievements in new energy initiatives. These visits underscore their recognition of clean energy.

Towngas Smart Energy has proactively positioned itself at the forefront of these changes. Initially focused on city-gas supply, we have consistently aligned with national policies, reforms and development, actively promoting the transition from coal to natural gas and replacing bottled LPG with pipeline natural gas. Today, we offer a comprehensive “Gas+” integrated energy solution, playing a crucial role in transforming the energy structure. We are also advancing distributed photovoltaic and energy storage solutions, collaborating on biogas purification projects to produce bio-natural gas, and launching virtual power plants. This diversified investment strategy allows us to maintain strategic control over the renewable energy industry chain, empowering industries to adopt environmentally responsible production practices.

## Promoting Technological Innovation and Achievements

Innovation lies at the heart of our mission. The Technology Application Centre, a collaboration with our parent company, The Hong Kong and China Gas Company Limited, has made significant breakthroughs this year in photovoltaics, energy storage, hydrogen and other clean energy technologies. These innovations have been successfully applied across the Group's various scenarios. We firmly believe that addressing industry challenges through technological innovation is the most effective way to support the low-carbon energy transition. Supporting technology and product development, this research centre is thriving, with nearly 40 core research and development professionals, 80% of whom hold advanced degrees. Despite being established just two years ago, it has already secured 25 authorised intellectual property rights, laying a strong foundation for future industry development.

## Benefitting the Community and Giving Back to Society

Community engagement flourishes with our commitment to benefitting society through active participation in public welfare services and contributing to the community through dedicated efforts in environmental protection. This past year, our tree-planting initiatives and “Blue Carbon” ecosystem preservation activities have showcased our dedication to environmental stewardship and reinforced our responsibility to protect the biodiversity that sustains us all. Our flagship initiative, the “Gentle Breeze Movement”, along with the “Green Firefly Project” in partnership with the Bank of East Asia Charity Fund, embodies our mission to extend warmth and support to our community. Through the “Gentle Breeze Movement”, we provide essential educational materials, books, and teaching resources to primary schools, ensuring that every child has the tools to learn and thrive. Meanwhile, the “Green Firefly Project” enhances students' digital learning environments including by introducing solar-powered electronic classrooms, bridging the gap between education and technology. We recognise that children are the stewards of our future, and both programmes aim to enrich their educational experiences. These initiatives not only contribute to national educational advancement but also foster sustainable development for future generations.

## Envisioning a Promising Future

In 2025, the conclusion of the “14th Five-Year Plan” paves the way for a promising future, as preparations for the “15th Five-Year Plan” are underway. The formal implementation of the Energy Law of the People's Republic of China heightens our focus on energy security and the transition to a low-carbon economy. Despite ongoing global uncertainties stemming from a complex geopolitical landscape and economic conditions, Towngas Smart Energy remains firmly committed to supporting China's vision for high-quality development. We are strategising and forming partnerships with internal and external stakeholders, to advance new energy ecosystems and enhance national energy security. Our dual commitment to providing safe gas supply and pioneering smart and low-carbon energy services supports the national “dual carbon” goals while preserving our environmental heritage for generations to come.

**Dr. the Hon. Lee Ka-kit**  
*Chairman*  
Hong Kong, 14 March 2025



# CEO's Statement



The year 2024 has been marked by global political and economic uncertainties, with nations creating shifting landscapes in climate and energy policies. These complexities pose challenges to effective climate governance. Yet, it was also a pivotal year for China's energy sector, given the remarkable progress towards our "dual carbon" goals. For the first time, the installed capacity of wind and solar photovoltaic power generation on the Chinese mainland has surpassed that of coal-fired power. This historic achievement allows us to meet our national commitment made at the Climate Ambition Summit, "of exceeding 1.2 billion kilowatts of wind and solar power capacity ahead of schedule, with a target set for 2030".

As the world's largest energy producer and consumer, China faces an urgent imperative to bolster energy security while driving a green transformation. At Towngas Smart Energy, we are committed to leading the charge in green and smart energy, striving to create a sustainable energy ecosystem for future generations. By the end of 2024, we have recorded a 5% increase in the overall gas sales volume, totalling 17,201 million cubic metres. Our portfolio includes 191 city-gas projects in aggregate (inclusive of corporate reinvestment projects) and investments in over 1,000 renewable energy projects across 24 provinces, autonomous regions and municipalities. With an accumulated grid-connected installed capacity of 2.3 GW from our distributed photovoltaic projects, and contracts for over 400,000 kWh of industrial and commercial energy storage, we are making significant strides. Our power trading volume has reached 8.4 billion kWh, and our renewable energy business has achieved a remarkable net profit of HK\$479 million, reflecting a fivefold year-on-year growth.

## Empowering the Future through a Dual-Track Approach

As the country's shift towards low-carbon development accelerates, green and smart energy will serve as catalysts for growth, closely aligning with Towngas Smart Energy's strategic direction. For our city-gas business, we are advancing our "Gas+" services, focusing on public buildings and expanding into the light-asset energy management market. This approach transforms our existing customers into holistic energy partners through large-scale equipment upgrades. In our renewable energy business, we are committed to developing zero-carbon smart industrial parks and implementing integrated microgrid solutions (EaaS, Energy as a Service) that combine "photovoltaic systems, electricity sales, and energy storage". In constructing national demonstration projects, we are establishing industry benchmarks and addressing the growing demand for green energy and low-carbon management solutions.

## Ensuring Energy Security as a Paramount Priority

We recognise that ensuring stable gas supplies and safe production is vital for the security of the energy industry chain, which is a crucial strategy for energy resilience. Together with our parent company, The Hong Kong and China Gas Company Limited, PipeChina, and the three major national petroleum companies, we have forged a strategic "1+3" partnership. This collaboration creates a robust supply framework that combines "offshore and onshore gas" resources, optimising operational costs and securing resource availability. At the heart of our operations is a commitment to gas safety. During this year's "Work Safety Month" in June, we implemented comprehensive safety inspections and educational initiatives, enhancing our staff's emergency response capabilities. Additionally, our community engagement efforts have fostered a culture of safety, contributing to a more secure environment for gas consumption.

## Capturing Green Finance for a Low-Carbon Transition

Towngas Smart Energy has embraced the burgeoning wave of green finance. A highlight of the year was the successful issuance of the Chinese mainland's first commercial and industrial distributed photovoltaic and energy storage "Zero-Carbon Smart Phase 1 Asset-Backed Securities Programme (Carbon Neutral)" (referred to as "Quasi-REITs") on the Shenzhen Stock Exchange. This milestone made Towngas Smart Energy the first Hong Kong-listed company to launch such "Quasi-REITs" domestically, with a fundraising target of RMB515 million that attracted an impressive oversubscription rate of 2.5 times. The proceeds will fuel our continued investments in renewable energy projects, including rooftop photovoltaic systems and energy storage stations, advancing the adoption of green energy and supporting the nation's transition to a low-carbon future.

## Leading the Pack and Reaching New Heights

The principles of ESG are deeply embedded in our corporate operations. Alongside our parent company, we proudly secured a spot in S&P Global's Sustainability Yearbook (China Edition) 2024, distinguishing Towngas Smart Energy among over 1,700 large enterprises across 60 industries. We also ranked in the top 1% of Chinese companies in the corporate sustainability assessment. This honour, awarded to us for the second consecutive year, positions us as the sole Chinese enterprise in the gas utility sector to achieve such ranking, underscoring our leadership in ESG governance.

## Fostering Partnerships to Thrive Amid Change

As we face the pressing challenges of climate change, Towngas Smart Energy acknowledges the profound responsibility of promoting a low-carbon energy transition as a leading energy enterprise on the Chinese mainland. Our unwavering commitment to innovation and the accelerated adoption of advanced technologies will fortify our resilience against the increasingly complex environment. Built on years of dedication to the mainland market, we have fostered a safety-focused corporate culture, a quality talent pool, and valuable experiences of working with various stakeholders, all of which we take pride in. These serve as a compass as we navigate the path toward a sustainable future for our community, our nation and our planet.

**Mr. Peter Wong Wai-yee**  
*Executive Director and Chief Executive Officer*  
 Hong Kong, 14 March 2025

# Business Overview

## Group Introduction

Towngas Smart Energy (Stock Code: 1083) is a public utility operating on the Chinese mainland as a subsidiary of The Hong Kong and China Gas Company Limited (Stock Code: 3, HKCG or the parent company). The Group focuses on the city-gas business, renewable energy business and gas resources business.

As of the end of 2024, the Group has a portfolio comprising 749 projects across 27 provincial regions on the Chinese mainland, including city-gas, renewable energy and gas resources supply chain projects.



### Vision

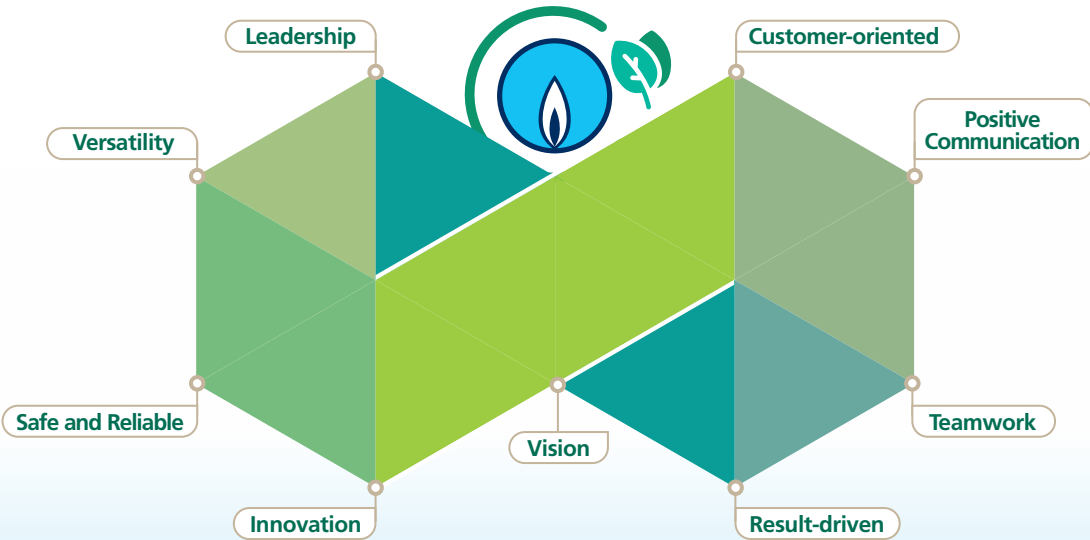
To be a leading clean and smart energy supplier, with a view to creating a sustainable world driven by green energy.

### Mission

To provide our customers with safe, reliable, clean and smart energy along with quality services, while committed to fulfilling our social responsibility, ensuring sustainable business growth, enhancing our shareholders' return on investment, and bringing long-term benefit for our planet, society, and stakeholders.



## Core Values



### City-Gas Business



### Renewable Energy Business



### Gas Resources Business



#### City-Gas



Gas sales volume  
**17.2 billion m<sup>3</sup>**



Customers  
**17.64 million**

#### Smart Energy



Zero-carbon smart industrial parks  
**128** (accumulative)



Photovoltaic installed capacity (grid-connected)  
**2.3 GW** (accumulative)

#### Stable Supply of Natural Gas



Including the gas volume coordinated by the parent company  
**4.42 billion m<sup>3</sup>**



Business Overview

Green and Sustainable Finance

We advocate for the development of green and sustainable finance, utilising relevant financing and ESG assessment tools to support green and low-carbon projects. Since 2022, the Group's green and sustainable financing has exceeded **HK\$3 billion**.

2022

Issued a sustainability-linked bond in Hong Kong:

- The **first** energy company in Hong Kong to issue a sustainability-linked bond;
- Raised a total of **US\$200 million**;
- The bond is associated with the following two sustainability performance targets (SPTs):

|  | 2020<br>(Baseline) | 2024 <sup>1</sup><br>(Progress) |
|--|--------------------|---------------------------------|
| Total photovoltaic installed capacity                | 0 GW               | 2.3 GW                          |
| Photovoltaic power sales to total energy sales ratio | 0%                 | 2.5%                            |

Received a green loan: **7-year of RMB500 million** for the development of our renewable energy business. The fund has been fully invested in the photovoltaic power generation system.

<sup>1</sup> Since 2021, the Group has actively expanded into renewable energy, aiming to integrate traditional city-gas operations with photovoltaic initiatives to achieve synergies. However, in light of changes in the macroeconomic environment and the profound impact of the pandemic on lifestyles, the Group has adjusted its business development strategy in the renewable energy sector starting in 2023. We are transitioning from an asset-heavy model (such as building photovoltaic power stations) to an asset-light model (including energy management services, energy storage, and technology licensing) to reduce capital expenditure risks and enhance business flexibility, better aligning with our long-term development goals.

Looking ahead, the Group will explore the potential of existing assets and place greater emphasis on the asset-light model. We are committed to optimising resource allocation, improving energy management efficiency through digital platforms, and promoting sustainable growth. Additionally, we will continue to explore innovative business models to meet the ever-changing market demands, ensuring our competitiveness and leadership in the renewable energy sector.

For the full version of the Sustainability-Linked Financing Framework and related SPTs, please refer to our [website](#).

2023

Issued Panda Bonds on the Chinese mainland (including sustainability-linked Panda Bonds):

- The **first** sustainability-linked Panda Bonds issued by a Hong Kong enterprise on the Chinese mainland;
- The Panda Bonds amount to **RMB1.5 billion**, of which **RMB500 million** is designated as sustainability-linked Panda Bonds.

2024

Received a green loan:

- **RMB500 million** for the development of the renewable energy business. The fund has been fully invested in photovoltaic power generation systems.

Successfully issued the first “Zero-Carbon Smart Phase 1 Asset-Backed Securities Programme (Carbon Neutral)” (Quasi-REITs) for industrial and commercial distributed photovoltaic and energy storage facilities on the Shenzhen Stock Exchange in January 2025.



The **first “Quasi-REITs”** successfully issued by a Hong Kong-invested company on the Chinese mainland market

**The market’s first** “Quasi-REITs” product for industrial and commercial distributed photovoltaic and energy storage



Initial issuance of **RMB515 million**



Business Overview

Collaborating with Stakeholders to Create a Sustainable Development Ecosystem

We are dedicated to creating a multi-faceted communication platform (see the “Stakeholder Engagement” section for more details) to initiate in-depth dialogues with various stakeholders and establish win-win partnerships built on mutual trust. Through diverse activities, we aim to effectively leverage the resources and strengths of all parties to collaboratively foster a sustainable development ecosystem.

This year, we joined forces with diverse stakeholders, focusing on both hosting and participating in the following key activities.



1 Professional Bodies and Regulators

Engaged closely with regulatory bodies and experts in industry, academia, and research, to enhance environmental awareness among enterprises and the public while promoting the innovative development of green technology.

- Biodiversity and New Energies Symposium
- Climate-related partnerships

2 Local Communities

Ensured community safety and promoted community harmony through safety inspections and community activities.

- “National Work Safety Month” activities
- “Rice Dumplings for the Community” programme

3 Employees

Organised a range of activities for employees to foster a culture of warmth and harmony within the Group.

- Wellness programmes and activities
- Training and development initiatives

4 NGOs

Collaborated with NGOs to plan and implement activities for various communities.

- Green Firefly Project
- Gentle Breeze Movement

5 Investors

Strengthened the transparency of ESG disclosure by collaborating with investors to support low-carbon innovation projects and advocating for the importance of ESG elements in the investment landscape.

- Responses to international and local ESG ratings
- Green and sustainable finance

6 Contractors and Suppliers

Collaborated with contractors and suppliers to actively implement ESG initiatives to create a green and sustainable supply chain.

- Supply Chain ESG Promotion and Carbon Verification Conference
- Supplier assessment

7 Customers

Actively explored zero-carbon smart technologies and solutions to strive for a green, efficient, and sustainable green ecosystem for customers.

- Zero-carbon smart industrial parks
- Excellent customer service



# 2024 ESG Achievements

<sup>2</sup> Refers to the number of fatalities as a result of work-related injury.

<sup>3</sup> Refers to city-gas business only.

<sup>4</sup> Refers to Towngas Smart Energy and its parent company, HKCG, mainland utilities.

<sup>5</sup> Refers to Towngas Smart Energy and its parent company, HKCG, city-gas business.

<sup>6</sup> Based on the total procurement value of products and materials (refers to city-gas business only).

## ESG Ratings and Recognitions

2024 ESG Achievements

ESG Recognitions



- 1

“Top 1%” S&P Global CSA Scores among Chinese Companies (Gas Utilities Sector)

Sustainability Yearbook (China Edition) 2024 – Member
- 2

Hong Kong Sustainability Award 2024 – Distinction Award
- 3

Best ESG Disclosure Award
- 4

Best GRI Report Commendation
- 5

Energy Saving and Carbon Reduction Effectiveness Award
- 6

Selected for “Responsibility 20 Years” Cases in “To Growth: 20 Years of Corporate Social Responsibility Development Report”
- 7

ESG Zero Carbon Enterprise Leader Award
- 8

Selected as the “Low-Carbon Project of the Year” at the 2024 Green Change Maker Conference
- 9

China Energy Conservation Association Innovation Award – Energy Saving and Emission Reduction Technology Advancement Award (Carbon Neutral Field)
- 10

WISE 2024 Business King – Enterprise of the Year for Business Value

Supporting the United Nations Sustainable Development Goals

In response to the Sustainable Development Goals (SDGs) of the United Nations, we continually evaluate the impact of our business on stakeholders and the environment. We have identified three key goals to guide our sustainable development efforts. As a public utility serving the community, we are committed to delivering stable and secure energy while steadily advancing a low-carbon energy transition throughout society to proactively address climate change.

| SDGs  | Potential Impacts Generated by the Group   | Actions Taken by the Group  |
|---|--|---|
| <div>7</div> <div>AFFORDABLE AND CLEAN ENERGY</div> <div></div>         | <p>Goal 7: Ensure access to affordable, reliable, sustainable and modern energy for all</p> <p>The use of fossil fuels for production poses environmental risks. Additionally, energy costs and pricing directly affect affordability.</p> | <ul style="list-style-type: none"><li>Persistently promoted coal-to-gas conversion, expanding gas supply coverage.</li><li>Provided integrated and comprehensive energy management services to enhance energy reliability and sustainability.</li><li>Operated a virtual power plant in Shanghai to balance supply and demand on the power grid, enhancing power system resilience.</li></ul> |
| <div>11</div> <div>SUSTAINABLE CITIES AND COMMUNITIES</div> <div></div> | <p>Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable</p> <p>Manufacturing and operational activities produce both non-hazardous and hazardous wastes and entail certain levels of safety risks.</p>    | <ul style="list-style-type: none"><li><b>Zero</b> major incident or chemical leakage occurred at our chemical plants.</li><li>Over <b>8.59 million</b><sup>3</sup> on-site safety inspections were conducted.</li></ul>   |
| <div>13</div> <div>CLIMATE ACTION</div> <div></div>                     | <p>Goal 13: Take urgent action to combat climate change and its impacts</p> <p>Business operations and the value chain contribute to greenhouse gas emissions.</p>   | <ul style="list-style-type: none"><li>Provided various carbon reduction services to customers, including energy storage, green power trading, and carbon management and trading.</li><li>Cumulatively developed <b>128</b> zero-carbon smart industrial parks, with <b>2.3 GW</b> grid-connected photovoltaic capacity.</li></ul>   |

<sup>3</sup> Refers to city-gas business only.



# Robust Governance

## Collaborating for a Shared Vision

High standards of corporate governance are a crucial foundation for the Group to move towards a sustainable future and are key to earning the trust of stakeholders and building long-term partnerships. To achieve this, we have established a comprehensive and efficient governance structure that includes thorough decision-making frameworks, stringent risk management protocols, and multi-dimensional monitoring processes. This integrated approach to governance equips the enterprise to identify opportunities in the complex landscape of energy transition and achieve steady growth.

### Key Highlights

|  Board Diversity  |  ESG Governance  |  Business Ethics  |  Stakeholder Engagement  |
|--|---|--|---|
| <ul style="list-style-type: none"><li>Board members possess diverse backgrounds and professional expertise<ul style="list-style-type: none"><li>Real estate</li><li>Finance</li><li>Public utility</li><li>Legal</li></ul></li></ul> | <ul style="list-style-type: none"><li>The <b>ESG Committee</b> is responsible for overseeing material ESG issues of the Group</li><li>Board members undergo professional <b>ESG sharing sessions</b> regularly to keep up with the latest market trends</li></ul> | <ul style="list-style-type: none"><li>The Group <b>did not engage in any material violations</b> in the following areas:<ul style="list-style-type: none"><li>Business ethics</li><li>Health and safety</li><li>Employment practices</li><li>Customer management</li><li>Environment</li></ul></li></ul> | <ul style="list-style-type: none"><li>Collected nearly <b>400</b> survey responses</li><li>Invited over <b>20</b> stakeholders to participate in four focus group discussions</li></ul> |



Robust Governance – Collaborating for a Shared Vision

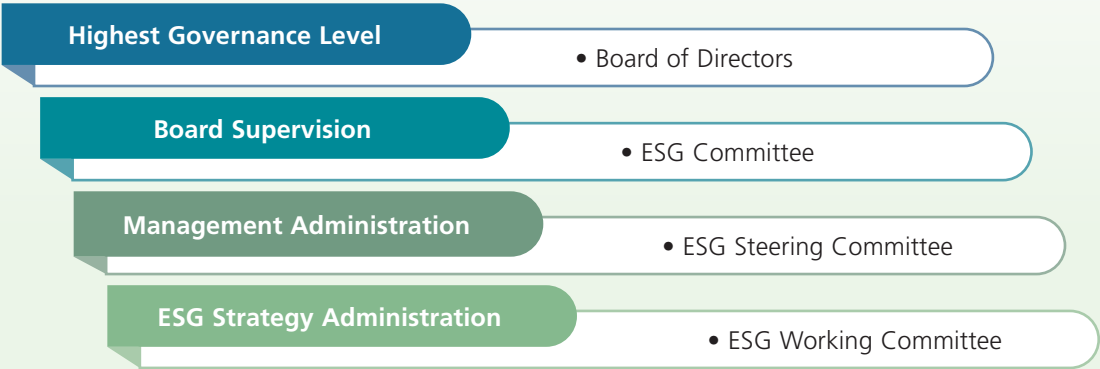
Management Approach

Our dedication to integrating sustainability principles across all operational dimensions is demonstrated through the implementation of a sound ESG governance structure and the development of comprehensive management directives.

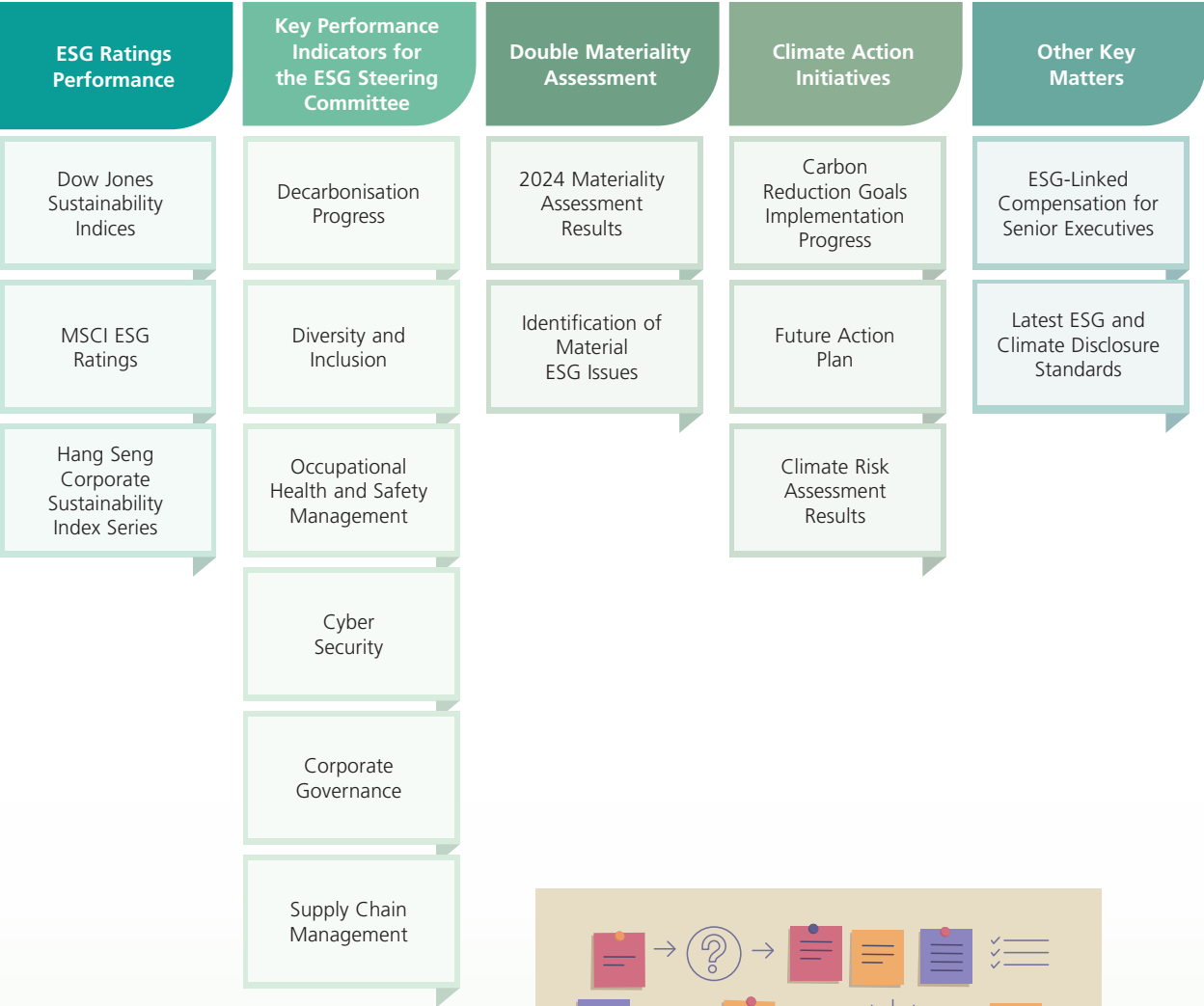
The Group arranges regular ESG professional sharing sessions to the Board and help members to gain a deeper understanding of relevant issues. It covers topics such as climate change, green finance, and regulatory requirements, ensuring that Board members stay informed of the latest developments and can effectively manage potential challenges in an ever-evolving business landscape. This initiative aims to enhance the professional competence at the board level, supporting the Group in achieving its long-term ESG goals and low-carbon transition.

Governance Structure

We, together with our parent company, HKCG, have established the ESG governance framework that encompasses the Board, senior management, functional departments, and business units, demonstrating a comprehensive commitment to the oversight and management of ESG issues. To enhance ESG implementation effectiveness, a mechanism has been put in place whereby 5% of the variable compensation for senior executives is directly linked to the achievement of ESG objectives, such as enhancement of ESG ratings, reduction of greenhouse gas (GHG) emissions, and achievement of health and safety performance targets.



During this year, the ESG Committee convened one regular meeting, focusing on the following key issues:






Robust Governance – Collaborating for a Shared Vision

ESG Policies

Guided by the ESG policies of our parent company, HKCG, we are firmly committed to practicing sustainable development principles. The policies cover environmental, social, and governance, addressing critical issues such as climate change, human rights protection, supply chain management, and personal data privacy. These directives serve as the cornerstone upon which our sustainability initiatives are built.

ESG Policy


E



Environmental

- [Climate Change Policy](#)
- [Environmental Policy](#)


S



Social

- [Anti-Discrimination Policy](#)
- [Code of Conduct](#)
- [Code of Practice for Suppliers](#)
- [Customer Services Code of Conduct Policy](#)
- [Employee Policy](#)
- [Health and Safety Policy](#)
- [Human Rights Policy](#)
- [Social Investment Policy](#)
- [Sustainable Purchasing Policy](#)

G



Governance

- [Anti-Fraud Policy](#)
- [Board Diversity Policy](#)
- [Dividend Policy](#)
- [Information Security Policy](#)
- [Nomination Policy](#)
- [Personal Data Privacy Policy](#)
- [Policy and Procedures on Disclosure of Inside Information](#)
- [Shareholders Communication Policy](#)
- [Risk Management Framework](#)
- [Security Policy](#)
- [Stakeholder Engagement Policy](#)
- [Whistleblowing Policy](#)



Risk Management

A comprehensive risk management system has been established, encompassing systematic mechanisms for the identification, assessment and monitoring of various operational risks, thereby ensuring robust development and sustained growth throughout our business.

Risk Management Structure

The risk management framework at Towngas Smart Energy has been designed with long-term operational stability and effective risk response as its primary objectives. Hierarchical management principles form the foundation of this structure, ensuring clear delineation of responsibilities and operational efficiency across all organisational levels.

The Group has in place an Enterprise Risk Management Framework that depicts the system to effectively identify, assess, mitigate, report and monitor key business risks across all business units of the organisation. The system enables the management team to gain a clear view of the significant risks for better strategy setting and project execution which ultimately contribute to enhanced business performance.

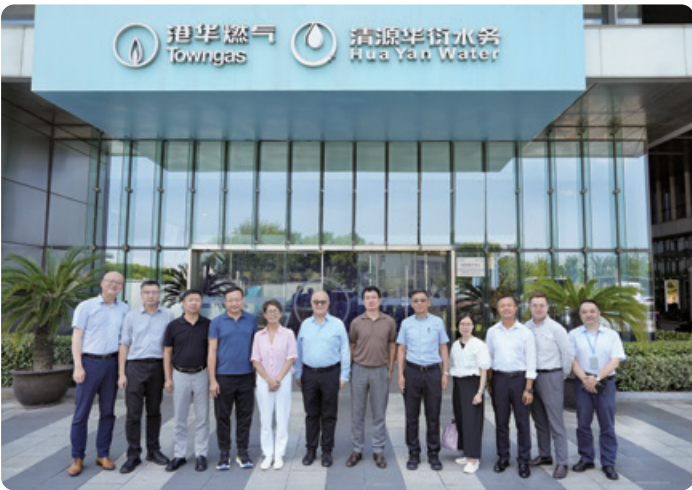
The risk management structure sets out the mechanism by which authority is exercised, decisions are taken and organisation is effectively supervised. The Board Audit and Risk Committee supports the Board in overseeing the overall risk management system and provides assurance to the Board at least annually that the system is operating effectively. The Executive Risk Management Committee, which comprises key management executives, is responsible for the system formulation and its effective implementation to maintain risk exposures within the risk appetite. It is assisted by the Risk Management Committee, which mainly comprises risk owners who are also the key business management team. The Risk Management Committee reviews the major risk exposure, monitors the implementation of risk-mitigating controls. While the Group's Internal Audit Department conducts independent reviews and reports to the Executive Risk Management Committee as well as the Board Audit and Risk Committee regularly on risk management updates.



Robust Governance – Collaborating for a Shared Vision

To gain a deeper understanding of the Group’s business operations and to steer future development directions, Board members, including Independent Non-Executive Directors, conducted an on-site inspection of the Suzhou operational facilities during this year.

During the inspection, the Board members conducted in-depth visits to various business segments, gaining a detailed understanding of the current operational status and engaging in thorough discussions about future development plans. This on-site inspection not only enabled the Board members to comprehensively grasp the Group’s latest development and identify potential risks but also provided valuable insights and recommendations for the Group’s strategic decision-making and risk management.

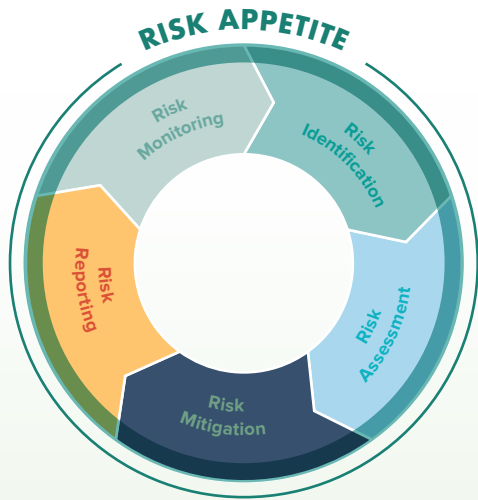


Risk Management Methodology

Risk management procedures are an integral part of the Group's daily operations and are consistently implemented by dedicated individuals from all business units.

Each project company within the Group maintains its own risk management procedures and systems. Regular communication regarding the latest risk status and corresponding mitigation measures is conducted among the Group's project companies, regional offices, and headquarters to ensure effective risk management and timely reporting of issues. Additionally, the Group's Internal Audit Department periodically conducts independent reviews to verify the effective operation of risk management systems.

Senior executives of each business region continuously monitor all major risks faced by the Group's project companies. The Risk Management Committee summarises key risks across all business areas and considers emerging risks through communication with relevant personnel.



The Group reassesses and continuously monitors key risks in accordance with the risk assessment criteria established within the framework, prioritising risk mitigation measures for high-level and medium-level risks. The Executive Risk Management Committee reviews the Group's major risks and corresponding action plans annually, based on the latest risk management developments, to ensure the effective operation of the system. Material risks and their mitigation measures are reported by the Group's Internal Audit Department to the Board Audit and Risk Committee (on behalf of the Board of Directors). Based on the review findings, the Board Audit and Risk Committee confirms the effectiveness of the risk management system at least once a year.

Risk Identification and Mitigation


As part of our ongoing risk management efforts, the Group conducts risk assessment at least annually, which include the identification of key risks and mitigation measures to ensure risks are effectively managed. The Board Audit and Risk Committee ensures that a review of the effectiveness of the Group’s risk management system has been conducted at least annually. This process involves close monitoring of business environment, assessing and prioritising risks.

In 2024, the key risks across all businesses and our value chain are summarised in the table below.

| Risk Categories    | Potential Impacts  | Mitigation Measures  | Affected Value Chain* |
|--------------------|--|--|-----------------------|
| <div>Market</div>  | <b>Severe market competition:</b> Slowing demand due to global warming concerns, competition, direct sales and alternative energy sources could affect revenue and market share.                         | <b>Diversify sector and market dependency:</b> Explore new business opportunities on the Chinese mainland.   | 1 2 3                 |
| <div>Finance</div> | <b>Liquidity risk:</b> Unexpected cash outflow, unplanned investments or insufficient cash inflow from operation due to unpredictable changes.<br><br><b>Credit risk:</b> Customer default in repayment. | <b>Implement financial liquidity stabilising measures:</b> Maintain healthy cash flow and sufficient marketable securities, with an adequate amount of credit facilities and ability to close out market positions.<br><br><b>Credit monitoring:</b> The Group has a credit policy to handle the credit risk of customers. Significant concentration of sales to any individual customer is avoided. | 2                     |

\* 1 – Upstream Supply Chain; 2 – Group Business Operations; 3 – Downstream Customers

Robust Governance – Collaborating for a Shared Vision

| Risk Categories   | Potential Impacts   | Mitigation Measures   | Affected Value Chain* |
|---|---|---|-----------------------|
| <br>Climate Change | <p><b>Increased capital expenditure:</b> Investments in new technologies and infrastructure may be required for reducing GHG emissions and adapting to climate change.</p> <p><b>Decline in gas demand:</b> Increasing awareness and concern about climate change among consumers and investors can influence market dynamics, leading a decline in natural gas demand.</p> | <p><b>Enhance resilience plans for extreme weather events:</b> Develop and implement comprehensive resilience plans to prepare for and respond to climate change-induced extreme weather, including vulnerability assessments and infrastructure strengthening.</p> <p><b>Reduce GHG emissions and set reduction targets with concrete action plans:</b> Implement measures to reduce emissions and establish long-medium-short-term targets aligned with global climate goals.</p> <p><b>Invest and diversify businesses for energy transition:</b> Allocate investments to low-carbon technologies, explore renewable energy sources, and adopt sustainable practices to reduce reliance on fossil fuels and facilitate the transition to a more sustainable energy system.</p> | 1 2 3                 |

\* 1 – Upstream Supply Chain; 2 – Group Business Operations; 3 – Downstream Customers


| Risk Categories   | Potential Impacts  | Mitigation Measures   | Affected Value Chain* |
|---|--|---|-----------------------|
| <br>Facility and Operation | <p><b>Gas leakages, supply disruptions, fires/explosions:</b> Failure of major assets, including the transmission and distribution network, production plants and storage facilities and distributed energy systems, could lead to major gas leaks, supply interruption, fires or explosions which could pose safety hazards to workers, residents and the environment.</p> <p><b>Severe damage to the Group's critical infrastructure/facilities:</b> A physical attack or extreme weather events could damage critical facilities, leading to safety incidents and supply disruptions.</p> | <p><b>Undertake active leakage and repair (LDAR) programmes:</b> Utilise Supervisory Control and Data Acquisition (SCADA) to monitor and control our gas network and all governors, employ gas detectors and smart gas meter to detect leaks and enhance security.</p> <p><b>Collaborate with regulatory authorities and industry peers:</b> Comply with regulations, participate in safety audits, and engage with regulatory authorities and industry peers to improve safety and operational standards.</p> <p><b>Develop and strengthen emergency response plans:</b> Create contingency plans for various scenarios, with clear procedures, communication protocols and coordination with authorities.</p> <p><b>Apply for insurance:</b> Purchase insurance to protect against loss from supply disruptions.</p> <p><b>Provide adequate training:</b> Provide training on handling procedures, equipment operation, emergency response and hazard awareness. Conduct regular practice drills to enhance preparedness.</p> | 1 2 3                 |

\* 1 – Upstream Supply Chain; 2 – Group Business Operations; 3 – Downstream Customers

Robust Governance – Collaborating for a Shared Vision

| Risk Categories  | Potential Impacts  | Mitigation Measures  | Affected Value Chain* |
|--|--|--|-----------------------|
| <div></div> <div>Occupational Health and Safety</div> | <b>Disruption of operations:</b> Occupational health and safety issues could cause shutdowns or delays to operation. | <b>Implement a comprehensive safety management system with guidelines and measures:</b> Develop a safety management system and ensure the Group's safety performance conforms to best industry practices.  | 1 2 3                 |
|  | <b>Injuries and loss of life:</b> Serious safety incidents could cause injuries and loss of life.                    | <b>Conduct regular safety inspections and audits:</b> Systematically inspect equipment, facilities, work areas and employees (including contractors) to identify hazards and ensure compliance with safety standards through regular inspections and audits.<br><br><b>Carry out comprehensive incident investigations:</b> Investigate incidents to identify root causes, implement corrective actions, and share lessons learnt to prevent a recurrence in the future.<br><br><b>Encourage active reporting, open communication and experience sharing:</b> Foster a culture of active reporting, open communication and experience sharing by encouraging employees and contractors to share and report their concerns, establish effective communication channels for safety-related information.<br><br><b>Provide adequate training:</b> Ensure employees and contractors receive training on hazard identification, equipment use, emergency response, safety protocols and others. Regular refresher training will be provided to strengthen their safety awareness. |                       |


\* 1 – Upstream Supply Chain; 2 – Group Business Operations; 3 – Downstream Customers

| Risk Categories   | Potential Impacts   | Mitigation Measures   | Affected Value Chain* |
|---|---|---|-----------------------|
| <div></div> <div>Human Resources</div> | <b>Manpower crisis:</b> Key management or mass workforce absenteeism could have a material impact on the Group's operations.                    | <b>Emergency plans to ensure business continuity:</b> Establish emergency plans and a mechanism to ensure business continuity in case of a crisis outbreak or spreading of communicable diseases.<br><br><b>Manpower succession:</b> A manpower succession plan is in place to match existing and future human capital needs against business strategy. | 2                     |
|   | <b>Manpower shortage and retention challenge:</b> The inability to retain or attract skilled professionals could affect the Group's operations. | <b>Active and ongoing monitoring of regulatory changes and requirements:</b> Ongoing monitoring by the Group of regulatory changes and requirements to ensure compliance.   |                       |



\* 1 – Upstream Supply Chain; 2 – Group Business Operations; 3 – Downstream Customers



Robust Governance – Collaborating for a Shared Vision

| Risk Categories  | Potential Impacts   | Mitigation Measures  | Affected Value Chain* |
|--|---|--|-----------------------|
| <div>Information Technology</div> | <b>Disruption of operations:</b><br>Critical system failures or severe cyber-attacks could cause loss of productivity.  | <b>Adopt robust protective system:</b><br>Deploy firewalls, intrusion detection systems and access controls to safeguard against cyber attacks.  | 1 2 3                 |
|  | <b>Data breach and loss of sensitive information:</b><br>Cybersecurity breaches could result in the leakage of customer data and the Group's reputation damage. | <b>Conduct regular security assessments:</b> Commission third-party assessments of systems to identify vulnerabilities and improve security standards.   |                       |
|  | <b>Financial loss:</b> Cybersecurity incidents could lead to financial burdens, including remediation costs and potential fines.                                | <b>Develop and strengthen contingency plans:</b> Develop comprehensive contingency plans, establish system and data backup, and conduct drills to ensure business continuity.  |                       |
|  | <b>Regulatory non-compliance:</b><br>Non-compliance with information security regulations could cause penalties and legal consequences.                         | <b>Ongoing monitoring on information security regulations:</b> Stay updated on information security regulations and ensure compliance, particularly on the Chinese mainland and Hong Kong.<br><br><b>Provide adequate training:</b><br>Implement programmes to educate employees on cybersecurity and secure information handling practices. |                       |

\* 1 – Upstream Supply Chain; 2 – Group Business Operations; 3 – Downstream Customers

| Risk Categories  | Potential Impacts  | Mitigation Measures   | Affected Value Chain* |
|--|--|---|-----------------------|
| <div>Materials</div>                          | <b>Feedstock supply interruption:</b><br>Significant interruptions in the supply of natural gas could impact production capabilities.  | <b>Diversify fuel sources:</b> Source natural gas from multiple regions or countries, purchase liquefied natural gas, unconventional piped natural gas, and other gas resources directly from overseas to reduce dependence on a single source.   | 1 2 3                 |
|  | <b>Increased fuel cost:</b> Supply chain disruptions could drive up natural gas prices, impacting the Group and customers.<br><br><b>Nonconforming quality of key materials for gas business:</b><br>Significant impact on operations due to nonconforming quality of key materials for operation. | <b>Increase gas storage capacity:</b><br>Expand gas storage capacity with multiple storage facilities for more efficient gas inventory management and stabilise gas supply during high-demand periods.<br><br><b>Establish a dedicated team for gas supply chain management:</b><br>Coordinate natural gas procurement, transmission/distribution, and storage strategically.<br><br><b>Conduct regular supplier evaluation and quality inspections:</b> Establish regular checking and evaluation procedures to ensure material quality. |                       |
| <div>Reputation, Ethics and Integrity</div> | <b>Impact on downstream customers:</b> Supply chain disruptions could affect operations (e.g. gas business), leading to reduced supply and increased costs.  |   | 2                     |
|  | <b>Fraudulent activities:</b> Internal fraud could lead to serious impact.<br><br><b>Employee misbehaviour and media attacks:</b> Employee misbehaviour and media attacks could harm the Group's reputation.   | <b>Implement a whistleblowing programme:</b> Establish formal channels for reporting suspected cases of fraud.<br><br><b>Develop clear ethical standards and policies:</b> Communicate HKCG's ethical standards and Code of Conduct to all stakeholders.<br><br><b>Provide adequate training:</b> Provide regular training to employees.  |                       |

\* 1 – Upstream Supply Chain; 2 – Group Business Operations; 3 – Downstream Customers

We will further enhance our ability to assess the potential impacts of our decision-making processes and the uncertainties inherent in estimating future events. This enhanced foresight will enable us to proactively prepare for, and navigate a broad spectrum of, potential scenarios and variables, particularly those with uncertain yet materially significant outcomes. In our evaluations, we will continue to carefully consider all potential risks and opportunities. For further information about risk management at Towngas Smart Energy, please refer to our [Annual Report 2024](#).

Robust Governance – Collaborating for a Shared Vision

Business Ethics

Business ethics is the cornerstone of corporate sustainability. Our operations are guided by philosophy of integrity, reinforced by robust compliance frameworks, effective monitoring systems, and regular training initiatives. These efforts built up a strong defence against corporate ethics.

Legal Compliance

Through diverse management protocols, Towngas Smart Energy is committed to upholding fair market order, championing operational integrity, and combating corrupt practices. Our endeavours facilitate sustainable and robust advancement for both our organisation and our partners. We strictly adhere to relevant laws and regulations, including the Anti-Monopoly Law of the People’s Republic of China, the Law Against Unfair Competition of the People’s Republic of China, and the Anti-Money Laundering Law of the People’s Republic of China. All employees are required to uphold business ethics and refrain from any form of commercial bribery, unfair competition, or other unethical practices.

The Group and its parent company, HKCG, have established a comprehensive compliance management system that provides clear behavioural guidelines for staff via the [Code of Conduct](#), alongside established disciplinary procedures for any violations. The Group has formulated the [Code of Practice for Suppliers](#) to ensure that suppliers maintain consistent ethical standards across all business partnerships. Additionally, the Group has implemented the [Anti-Fraud Policy](#) to enhance the prevention and management of internal misconduct.

During the year, the Group maintained exemplary compliance in areas such as business ethics, occupational health and safety, employee practices, and environment, with no material violations reported.

| Area                | Compliance Issues  | Material Violations              |
|---------------------|--|----------------------------------|
| Business Ethics     | Anti-corruption  | No reported cases                |
|                     | Anti-competitive behaviour   | No reported cases                |
|                     | Labour standards (child labour and forced labour)                        | No reported cases                |
|                     | Money laundering or insider trading                                      | No reported cases                |
| Health and Safety   | Occupational health and safety   | No reportable <sup>7</sup> cases |
|                     | Customer and the public  | No reportable <sup>7</sup> cases |
| Employee Practices  | Employment practices <sup>8</sup>  | No reportable <sup>7</sup> cases |
| Customer Management | Customer privacy   | No reported cases                |
|                     | Product and service information and labelling, and marketing information | No reported cases                |
| Environment         | –  | No reportable <sup>7</sup> cases |

Reporting and Monitoring

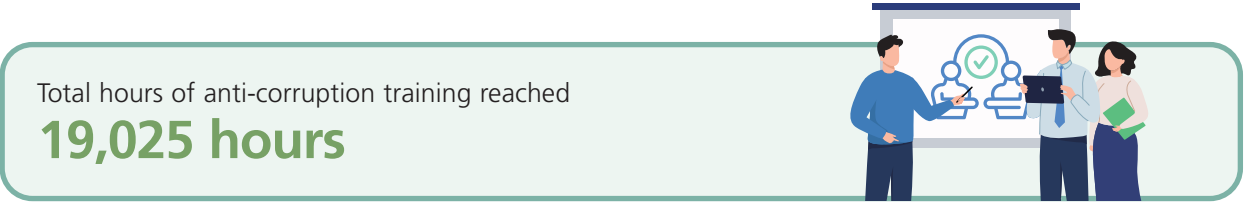
Towngas Smart Energy actively encourages employees and other stakeholders to report any instances of misconduct or unethical behaviour, ensuring strict adherence to the [Whistleblowing Policy](#). The policy clearly delineates reportable behaviours, including but not limited to fraud, corruption, breaches of internal policies and procedures, legal or regulatory non-compliance, and contraventions of financial control requirements. Protection of whistleblowers is a fundamental principle, with firm assurances that individuals making factual reports will neither face unfair treatment nor retaliation, while their identities remain strictly confidential. Reports can be submitted in writing to the Head of Group Audit and Risk Management of HKCG or conveyed through a designated email address.

<sup>7</sup> These include material violations that resulted in fines greater than HK\$1 million or non-monetary sanctions.

<sup>8</sup> Employment practices related to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, anti-discrimination and other benefits and welfare.

Training for Upholding Integrity

Throughout 2024, significant enhancements to the integrity frameworks were implemented, with multiple specialised anti-corruption training sessions delivered to foster an atmosphere of probity across all operational activities. These educational initiatives aim to deepen staff understanding of anti-corruption principles while reinforcing ethical awareness in daily professional practices. A systematic approach to training has been adopted to embed integrity values firmly within the organisational culture, with collective actions from all employees contributing to the maintenance of the Group's reputation for ethical conduct and transparency.



Data Privacy and Cybersecurity

The digital transformation era has elevated data privacy protection and cybersecurity protection to essential corporate responsibilities. We continuously refine our management systems and establish comprehensive information security mechanisms.

Customer Privacy Protection

Towngas Smart Energy fully recognises the paramount importance of safeguarding customers’ personal privacy information. Legal compliance with relevant regulations, including the Personal Information Protection Law of the People’s Republic of China, is upheld alongside the active implementation of established protocols developed by the parent company, HKCG, such as the [Personal Data Privacy Policy](#).

The Group is committed to advancing information security measures, ensuring that privacy considerations are integrated into overall business development.

- The Towngas Operation Platform (TOP) and Towngas Management System (TMS) were awarded the Network Security Level Protection Grade 3 Certificate by the Office of the Shenzhen Information Security Graded Protection Coordination and Leading Group
- Established system security management positions to provide 24-hour proactive operation and maintenance services
- Enhanced information security controls have been implemented, including two-factor authentication for email systems and rigorous reviews of system access

Robust Governance – Collaborating for a Shared Vision

Cybersecurity Protection

Protecting our digital infrastructure and critical data is one of our top priorities. Unauthorised access to data could lead to violations of personal privacy or trade secrets, negatively impacting the Group's business operations. In compliance with the Cybersecurity Law of the People's Republic of China and our parent company's Information Security Policy, we have implemented various measures to ensure the proper protection of relevant information by regularly assessing potential threats through our network security management system.

The Group has adopted various measures to strengthen cybersecurity:

- Updated the Group IT Management System and the Mainland Utility Business IT Emergency Response Plan
- Conducted disaster recovery drills and third-party security testing to maintain system stability and security

Intellectual Property Protection

Towngas Smart Energy strictly complies with intellectual property rights laws and legislations, including the Copyright Law of the People's Republic of China, the Trademark Law of the People's Republic of China, the Patent Law of the People's Republic of China, and the Tort Law of the People's Republic of China. At the internal management level, employees are explicitly required to obtain proper authorisation or permission prior to utilising any copyright-protected materials. Similar standards extend to external partnerships, where contractual requirements ensure that service providers and suppliers guarantee their services or products do not infringe upon any third-party intellectual property rights.

The Group places great emphasis on the innovative management of intellectual property rights. Significant achievements within the renewable energy business were documented during this reporting period:

A total of **99** patents and software copyrights were granted or accepted, representing a **62%** year-on-year increase

- 51** invention patent applications ( **24** granted)
- 12** new model and design patent applications ( **7** granted)
- 36** software copyrights registered

Stakeholders Engagement

Towngas Smart Energy is committed to maintaining close connections with all stakeholders, gaining a deep understanding of and responding to their expectations and concerns. Furthermore, we actively participate in industry initiatives aimed at promoting sustainability in the energy sector.

Industry Partnerships

Towngas Smart Energy actively drives collaborative success in the energy sector by participating in major exhibitions and symposiums, establishing strong connections with government authorities, corporate partners, and research institutions. Together, we explore pathways for low-carbon transition and jointly create a new digital energy ecosystem.

Participation in the 2024 Shanghai International Carbon Neutrality Expo

This year, the Group was invited to exhibit at the “2024 Shanghai International Carbon Neutrality Expo”. Under the theme “The Digital Decarbonisation Journey for Commercial and Industrial Customers”, we showcased our latest advancements in zero-carbon technologies and decarbonisation. These include integrated smart zero-carbon solutions such as distributed photovoltaic investments, carbon asset management, and green electricity trading. Additionally, we entered into strategic cooperation agreements with eight partners to jointly promote green transition and sustainability.



Robust Governance – Collaborating for a Shared Vision

Double Materiality Assessment

The double materiality assessment (DMA) process enables Towngas Smart Energy to accurately identify key sustainability areas. Strategic development is directly informed by the assessment results, enabling continuous enhancement of ESG performance while effectively addressing stakeholder expectations.

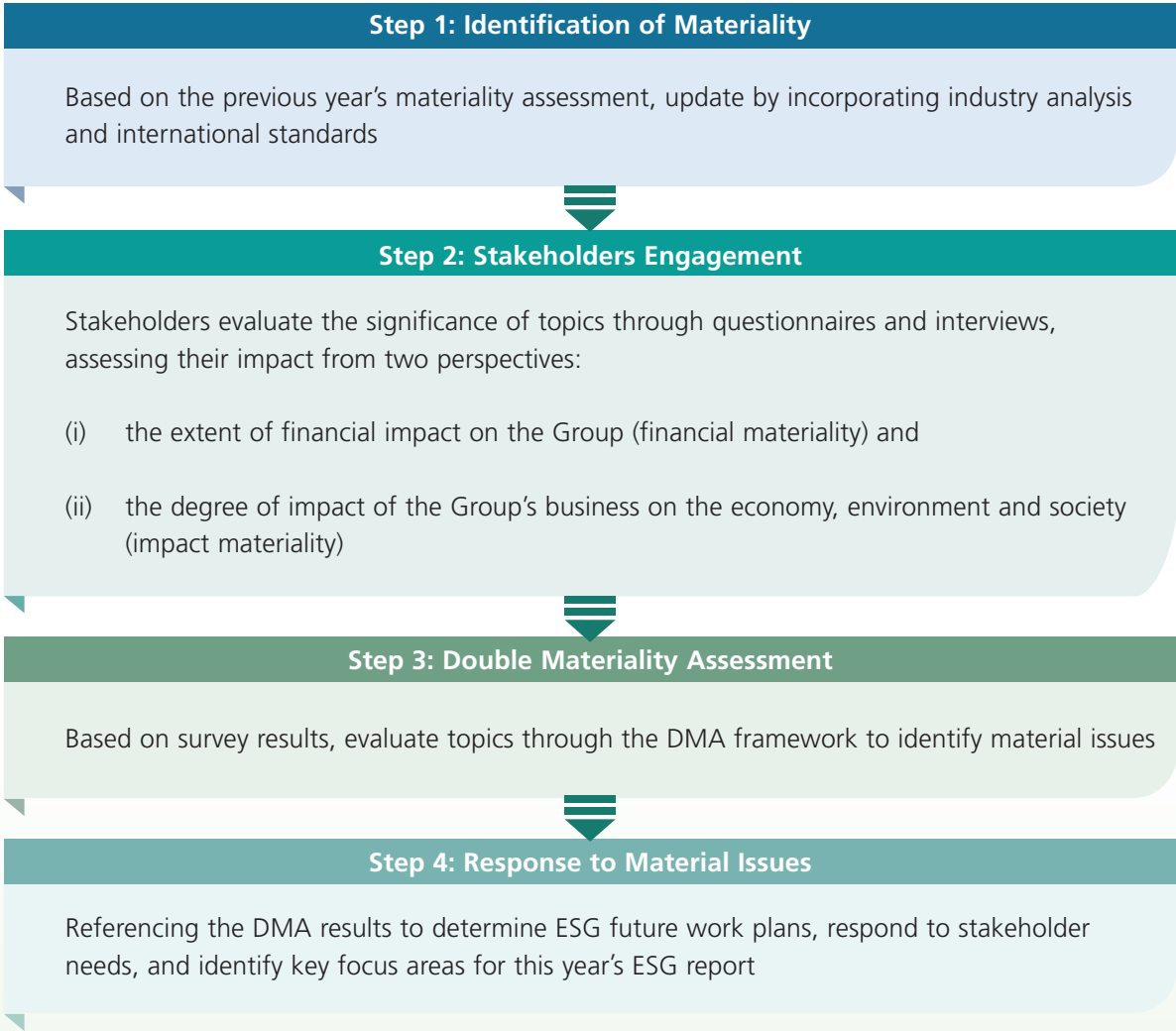
Multi-Stakeholder Dialogue

Systematic mechanisms have been established for regular review and identification of key stakeholder groups. Multi-channel engagement facilitates the comprehensive collection of opinions. At the same time, we prioritise transparency in our communication results, regularly disclosing them to the public through a variety of platforms.

| Stakeholders                       | Focus Areas  | Communication Channels   |
|------------------------------------|--|--|
| Employees                          | <ul style="list-style-type: none"><li>Inclusion and Diversity</li><li>Occupational Health and Safety</li><li>Employee Engagement and Development</li></ul> | <ul style="list-style-type: none"><li>Employee surveys and meetings</li><li>Suggestion boxes</li><li>Bulletin boards</li><li>Internal publications (e.g. circulars, newsletters)</li><li>Intranet</li><li>Social media</li></ul>                 |
| Contractors and Suppliers          | <ul style="list-style-type: none"><li>Business Integrity and Compliance</li><li>Responsible Supply Chain Management</li></ul>                              | <ul style="list-style-type: none"><li>Seminars and workshops</li><li>Management meetings and supplier discussions</li><li>Site visits</li></ul>  |
| Shareholders and Investors         | <ul style="list-style-type: none"><li>Corporate Governance</li><li>Financial Impact</li><li>Business Integrity and Compliance</li></ul>                    | <ul style="list-style-type: none"><li>Annual general meetings</li><li>Annual reports and interim results reports</li><li>Company website and corporate publications</li><li>Investor meetings and conference calls</li><li>Site visits</li></ul> |
| Customers                          | <ul style="list-style-type: none"><li>Customer Health and Safety</li><li>Data Privacy and Cybersecurity</li><li>Customer Experience</li></ul>              | <ul style="list-style-type: none"><li>Company website</li><li>Social media</li><li>Surveys and focus groups</li><li>Customer service hotline</li><li>Customer service centres</li></ul>  |
| Local Community/ NGOs              | <ul style="list-style-type: none"><li>Community Relations</li><li>Human Rights Management</li></ul>  | <ul style="list-style-type: none"><li>Community publicity activities</li><li>Charity activities</li><li>Philanthropy activities</li><li>Educational activities</li></ul>   |
| Professional Bodies and Regulators | <ul style="list-style-type: none"><li>Greenhouse Gas Emissions</li><li>Business Integrity and Compliance</li><li>Economic Impact</li></ul>                 | <ul style="list-style-type: none"><li>Government documents</li><li>Day-to-day communication and reports</li><li>Government-business partnership projects</li></ul>   |

Assessment Methodology

This year, we conducted a survey of nearly 400 internal and external stakeholders through questionnaires and interviews in collaboration with our parent company, HKCG. We employed a DMA approach to identify ESG issues that have both impact materiality and financial materiality, which guided the focus of the report. The specific assessment process is as follows:



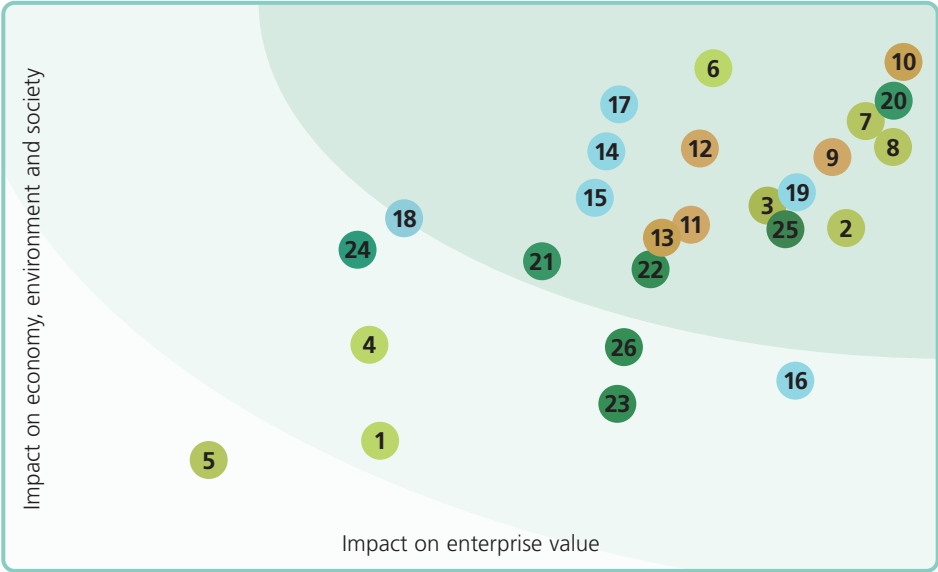


Robust Governance – Collaborating for a Shared Vision

Assessment Results

We developed a double materiality matrix and further identified the main stakeholder categories involved in each materiality issue, along with the corresponding relevant sections.






The Group's 2024 Double Materiality Matrix



|  |   |
|--|---|
| <b>Towards Carbon Neutral – Initiating the New Green Era</b> | <b>Robust Governance – Collaborating for a Shared Vision</b>            |
| 1 Air Emissions  | 14 Business Integrity and Compliance*                                   |
| 2 Biodiversity and Resource Use*                             | 15 Corporate Governance*  |
| 3 Energy Efficiency*   | 16 Data Privacy and Cybersecurity                                       |
| 4 Waste Management   | 17 ESG Strategy*  |
| 5 Water and Wastewater                                       | 18 Tax*   |
| 6 Climate Adaptation, Resilience and Transition*             | 19 Economic Impact*   |
| 7 Low-Carbon Business Opportunities and Investment*          |   |
| 8 Greenhouse Gas Emissions*                                  |   |
| <b>Effective Collaboration – Upgrading the Value Chain</b>   | <b>United in Effort – Drawing a Blueprint for a Sustainable Society</b> |
| 9 Customer Experience*                                       | 20 Energy Affordability*  |
| 10 Supply Security and Reliable Production and Distribution* | 21 Asset Integrity and Crisis Management*                               |
| 11 Innovation*   | 22 Employee Engagement and Development*                                 |
| 12 Customer Health and Safety*                               | 23 Human Rights Management  |
| 13 Responsible Supply Chain Management*                      | 24 Inclusion and Diversity  |
|  | 25 Occupational Health and Safety*                                      |
|  | 26 Community Relations  |

\* Indicates issues with high materiality

Based on the results of the DMA, we identified “Supply Security and Reliable Production and Distribution”, “Energy Affordability”, and “Low-carbon Business Opportunities and Investment” as three core material issues impacting enterprise value. Through comprehensive engagement with external stakeholders, further confirmation emerged that “Climate Adaptation, Resilience and Transition” and “Asset Integrity and Crisis Management” are their primary areas of focus. In response, we have formulated corresponding strategies to address these priority areas, actively fulfilling stakeholder expectations while advancing our corporate sustainability objectives.

| Issue   | Our Management Approach  |
|---|--|
|  <b>Supply Security and Reliable Production and Distribution</b> | Maintaining a stable and reliable energy supply is a fundamental mission for us. Supply disruptions impact not only customer service and operational revenue but may also impact public safety. Therefore, continuous optimisation of production and distribution systems, along with comprehensive risk management mechanisms, are essential for sustainable business operations across our organisation. |
|  <b>Energy Affordability</b>                                    | We are committed to ensuring equitable and accessible energy, safeguarding vulnerable communities, investing in renewable energy sources, and collaborating with diverse stakeholders to advance innovative solutions. We pledge to balance economic sustainability with social equity throughout the energy transition process.   |
|  <b>Low-Carbon Business Opportunities and Investment</b>       | The global decarbonisation trend is generating diverse commercial opportunities. The deployment of renewable energy, energy efficiency solutions, circular economy models and green financial products are rapidly expanding. We shall continue to strategically position ourselves in low-carbon sectors, diligently meeting both regulatory requirements and market demands.                             |
|  <b>Climate Adaptation, Resilience and Transition</b>          | The global trend towards low-carbon transition require us to proactively adapt our business model to offer cleaner energy solutions and greener options for our customers.   |
|  <b>Asset Integrity and Crisis Management</b>                  | Insufficient asset integrity and crisis management can weaken the operational efficiency and market competitiveness of the enterprise. The Group has developed contingency plans for potential risks and conducts regular inspections and maintenance of equipment, continuously monitoring asset conditions to ensure asset safety and operational stability.   |

Robust Governance – Collaborating for a Shared Vision

Impact Boundaries of Material Issues




The following table outlines this year's ESG material issues along with the impact scope of various issues on both internal and external stakeholders.

| No. | Material Issues   | Impact Scope |                           |           |           | Corresponding chapters   |
|-----|---|--------------|---------------------------|-----------|-----------|--|
|     |   | Employee     | Contractors and suppliers | Customers | Community |  |
| 1   | Air Emissions   | √            | √                         | √         | √         | Towards Carbon Neutral – Initiating the New Green Era            |
| 2   | Biodiversity and Resource Use*                            | √            | √                         |           | √         |  |
| 3   | Energy Efficiency*  | √            | √                         | √         | √         |  |
| 4   | Waste Management  | √            | √                         |           |           |  |
| 5   | Water and Wastewater                                      | √            | √                         |           | √         |  |
| 6   | Climate Adaptation, Resilience and Transition*            | √            | √                         | √         | √         |  |
| 7   | Low-Carbon Business Opportunities and Investment*         | √            | √                         | √         |           |  |
| 8   | Greenhouse Gas Emissions*                                 | √            | √                         | √         | √         |  |
| 9   | Customer Experience*                                      | √            | √                         | √         |           | Effective Collaboration – Upgrading the Value Chain              |
| 10  | Supply Security and Reliable Production and Distribution* | √            | √                         | √         | √         |  |
| 11  | Innovation*   | √            | √                         | √         | √         |  |
| 12  | Customer Health and Safety*                               | √            | √                         | √         |           |  |
| 13  | Responsible Supply Chain Management*                      | √            | √                         |           |           | Robust Governance – Collaborating for a Shared Vision            |
| 14  | Business Integrity and Compliance*                        | √            | √                         | √         | √         |  |
| 15  | Corporate Governance*                                     | √            | √                         | √         | √         |  |
| 16  | Data Privacy and Cybersecurity                            | √            | √                         | √         |           |  |
| 17  | ESG Strategy*   | √            | √                         | √         | √         |  |
| 18  | Tax*  | √            | √                         | √         | √         |  |
| 19  | Economic Impact*  | √            | √                         | √         | √         | United in Effort – Drawing a Blueprint for a Sustainable Society |
| 20  | Energy Affordability*                                     |              |                           | √         | √         |  |
| 21  | Asset Integrity and Crisis Management*                    | √            | √                         | √         | √         |  |
| 22  | Employee Engagement and Development*                      | √            |                           |           |           |  |
| 23  | Human Rights Management                                   | √            | √                         |           |           |  |
| 24  | Inclusion and Diversity                                   | √            | √                         |           |           |  |
| 25  | Occupational Health and Safety*                           | √            | √                         |           |           |  |
| 26  | Community Relations                                       | √            |                           |           | √         |  |

\* Indicates issues with high materiality

From Feedback to Action

Stakeholder expectations and requirements are essential elements in the formulation of our corporate sustainability strategy. This year, we assessed potential impacts across multiple material issues. Based on the perspectives collected from stakeholders regarding ESG issues, we subsequently conducted targeted actions to address specific concerns.

| Stakeholders' Feedback   | Corresponding ESG Issues            | Impacts*   | Our Action  |
|--|-------------------------------------|--|---|
| <div><p>"As a supplier to the Group, we are honoured to have attended multiple ESG training sessions and seminars offered by the Group."</p></div> <div>Supplier</div>   | Responsible Supply Chain Management | Internal:<br>+ Enhanced supply chain resilience<br>- Financial losses and increased operational costs<br><br>External:<br>+ Drive industry sustainability<br>- Environmental pollution or resource waste   | Collaborated with industry experts to conduct a series of ESG training sessions, conveying sustainability concepts to suppliers and helping them improve their ESG management capabilities.<br><br>(For further details, please refer to the section on "Supplier Training")  |
| <div><p>"As an NGO worker committed to social services, I am deeply concerned about the living conditions of elderly people who live alone. In partnership with the Group, I am delighted to witness the Group has considered the specific needs of elderly when designing products and providing services."</p></div> <div>NGO staff</div> | Community Relations                 | Internal:<br>+ Enhanced brand image<br>- Increased communication costs and crisis management expenses<br><br>External:<br>+ Promoted harmonious community development<br>- Inability to meet the gasusope needs of vulnerable groups                     | Regular home visits for vulnerable groups, including elderly individuals living alone and persons with disabilities, provide timely resolutions to their concerns and difficulties.<br><br>(For further details, please refer to the section on "Promoting Inclusive Gas Services")   |
| <div><p>"Working within the energy company, I have noticed that the Company has taken a proactive approach to GHG emissions issues."</p></div> <div>Our internal employee</div>   | Greenhouse Gas Emissions            | Internal:<br>+ Reduced compliance risks and improved ESG rating results<br>- Penalties and loss of customer support<br><br>External:<br>+ Mitigated climate change, supporting the energy transition<br>- Negative impacts on the ecological environment | The prevention of gas leakage and the reduction of GHG emissions have been achieved through various carbon reduction measures, including updating of ageing equipment, alongside strengthened pipeline inspection and maintenance protocols.<br><br>(For further details, please refer to the section on "Climate Actions") |

\* + indicates positive impacts - indicates negative impacts






# United in Effort

## Drawing a Blueprint for a Sustainable Society

Towngas Smart Energy aligns with national human resources development strategies by actively fostering high-quality employment opportunities. We continuously elevate occupational health and safety standards to ensure every employee works in a safe and healthy environment. Furthermore, we take proactive steps in corporate social responsibilities, collaborating with employees, communities, and all the stakeholders to build a harmonious and sustainable future together.

### Key Highlights

|  Safety  |  Employee  |  Community  |
|---|---|--|
| <ul style="list-style-type: none"><li>Number of work-related fatalities<sup>2</sup> (employees and contractors): <b>0</b></li><li>Major incidents or chemical leakage at chemical plants: <b>0</b></li><li>Lost-time injury frequency rate (accidents per 1,000,000 work-hours):<ul style="list-style-type: none"><li>Employees: <b>0.18</b></li><li>Contractors: <b>0.06</b><sup>9</sup></li></ul></li><li>Safety training hours: <b>521,951 hours</b></li><li>Over <b>8.59 million</b><sup>3</sup> household safety inspections</li></ul> | <ul style="list-style-type: none"><li>Training and development<ul style="list-style-type: none"><li>Average training hours per employee: <b>62.3 hours</b></li></ul></li><li>Employees from ethnic minorities: <b>507</b></li></ul> | <ul style="list-style-type: none"><li>Volunteer service hours: over <b>160,000 hours</b></li><li>Charity investment: over <b>HK\$5.8 million</b><sup>4</sup></li></ul> |

<sup>2</sup> Refers to the number of fatalities as a result of work-related injury.

<sup>3</sup> Refers to city-gas business only.

<sup>4</sup> Refers to Towngas Smart Energy and its parent company, HKCG, mainland utilities.

<sup>9</sup> Refers to Towngas Smart Energy and its parent company, HKCG, city-gas business, renewable energy business and gas resources business.



## United in Effort – Drawing a Blueprint for a Sustainable Society

### Management Approach

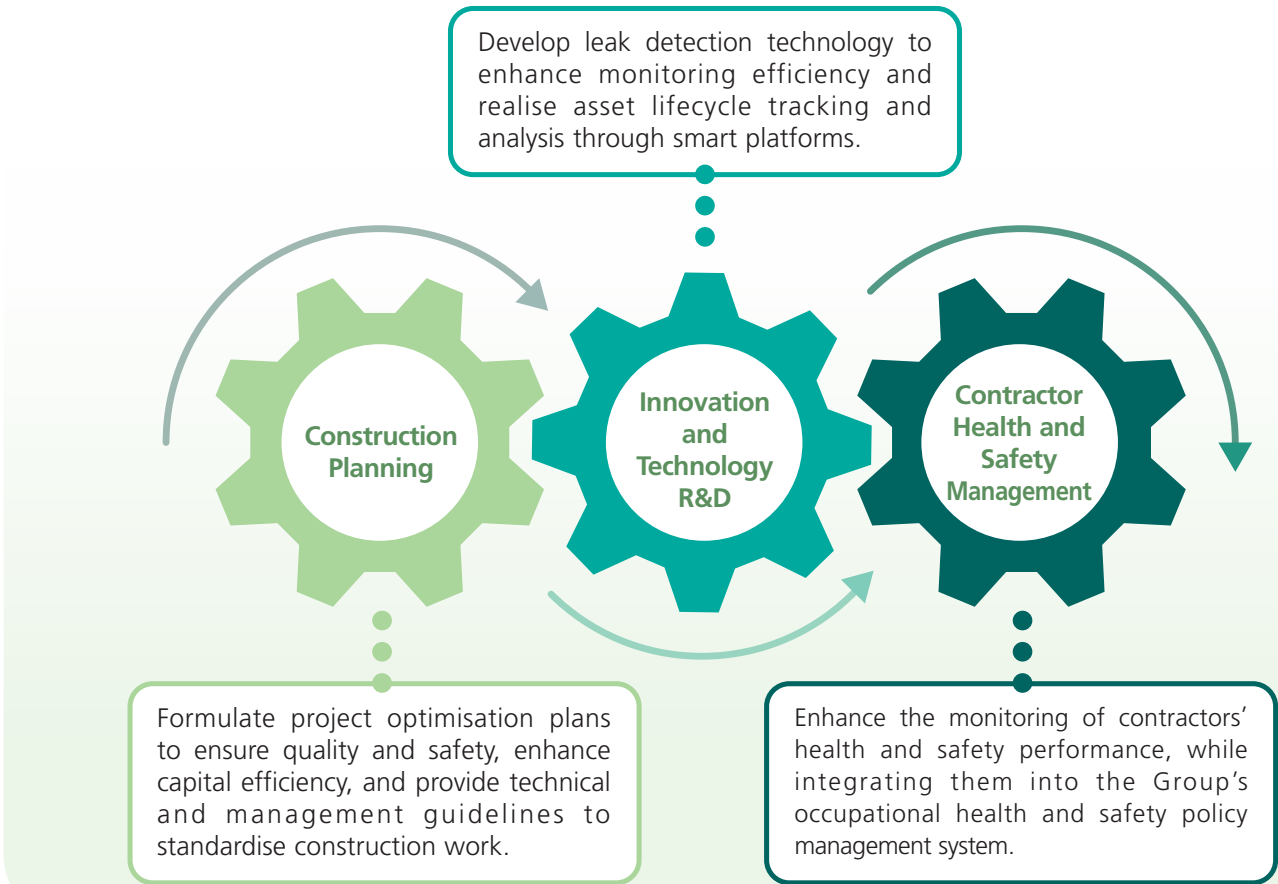
Towngas Smart Energy strictly adheres to the laws and regulations pertaining to employee rights and interests, including the Labour Law of the People’s Republic of China and the Labour Contract Law of the People’s Republic of China. In accordance with the management framework established by our parent company, HKCG, we conform to several key policies, including the Code of Conduct, Employee Policy, Health and Safety Policy, Anti-Discrimination Policy, and Social Investment Policy. Additionally, we have developed internal policies such as the Towngas Smart Energy Employee Handbook and Occupational Health Management Procedures, complemented by the Work Safety Responsible Letter, which collectively enhance the safe and efficient operation of our business activities.

### Building Safety Lines of Defence

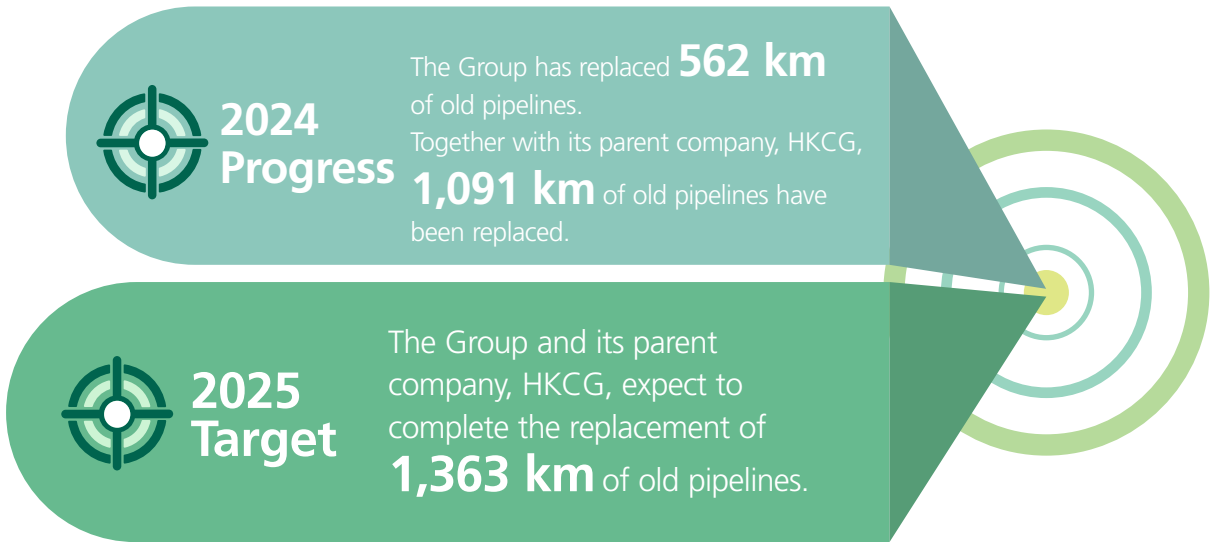
We consistently prioritise operational safety by adopting proactive approaches to asset preventive maintenance, coupled with the development of a robust framework that encompasses both crisis management and occupational safety standards, and actively conducting community safety initiatives. This multi-layered defence mechanism serves to secure the well-being of our employees while simultaneously upholding the interests of both the Group and the communities.

### Asset Integrity and Crisis Management

Leveraging the efficient engineering construction and operational management systems, the Group has successfully implemented an advanced system that integrates innovative technologies across all operational stages. This holistic approach fosters cost reduction and efficiency improvement, effectively extending the lifespan of gas pipeline networks while maintaining the safety, reliability, and economic viability of assets throughout their operational lifecycle, providing solid safeguards for the entire operational process.



Gas pipelines are susceptible to corrosion and wear during prolonged use, resulting in an increased risk of gas leakage. In pursuit of enhancing the efficiency and safety of gas transmission, the Group has made substantial investments in human and material resources for the replacement of aging infrastructure. Adhering strictly to the guidelines set forth in the Guidelines for Assessing the Conditions of Old Pipelines, we employ professional methodologies to proactively mitigate potential risks.



Furthermore, the Towngas Operation Platform (TOP), developed by the Group, has been applied in hundreds enterprises, providing a full range of digital solutions for operation, safety, and risk management.





### United in Effort – Drawing a Blueprint for a Sustainable Society

We not only prevent accident risks but also established a comprehensive safety incident management system. Through a tiered management approach, the Work Safety Responsible Letter was signed at all levels, clearly defining key performance indicators for significant safety incidents. These indicators are seamlessly integrated into the annual key performance indicators of all business segments, regions, and project companies, thus ensuring adherence to rigorous safety management standards.

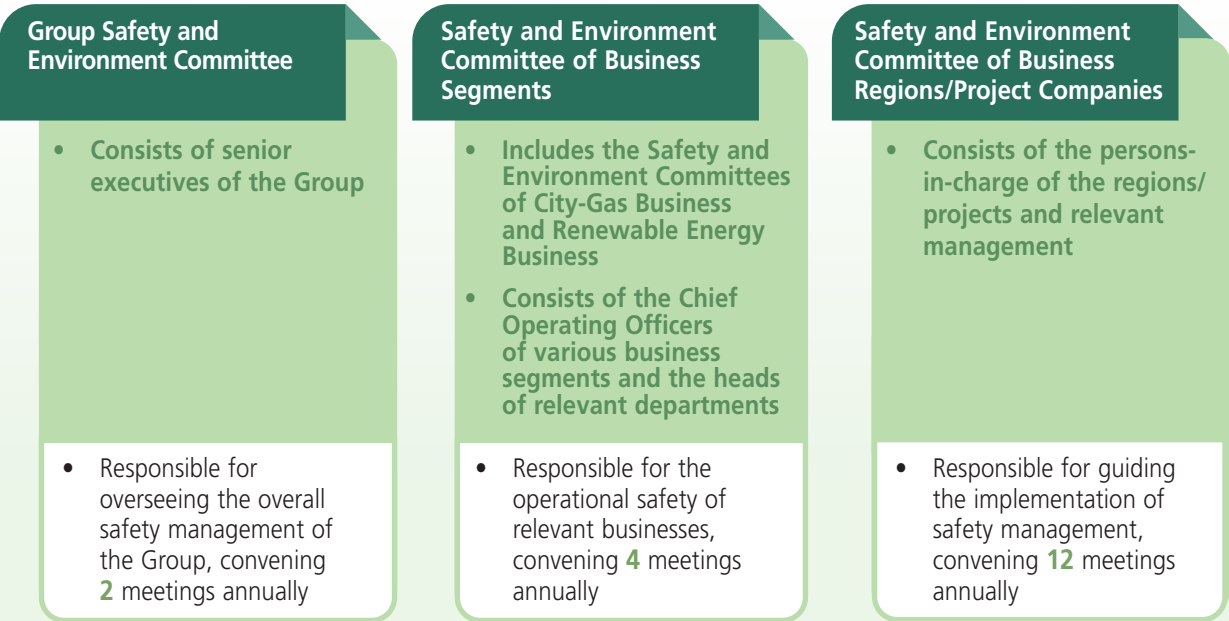


### Occupational Health and Safety

We see the Health and Safety Policy, Occupational Health Management Procedures, Guidelines for Detection, Evaluation, and Monitoring of Occupational Disease and Hazards, and the Group’s Employee Safety Handbook as the core policies of our occupational health and safety management which establish clear standards for both employees and contractors. Additionally, senior executives’ compensation is directly linked to the Group’s occupational health and safety performance, ensuring accountability and reinforcing effective supervision of our safety management systems.



In addition, we have established a dual-prevention mechanism to strengthen safety risk management. The Group’s senior executives have formed a Business Risk Assessment Committee, which conducted biannual self-evaluations to assess and control safety risks at the corporate level. Simultaneously, we oversee and guide business regions and project companies in safety risk identification and assessment, ensuring the effective operation of the safety risk management system.



### Promoting Safety Consciousness

We placed a high priority on safety education, delivering diverse training and awareness campaigns to ensure every employee and partner deeply understand the importance of safety.



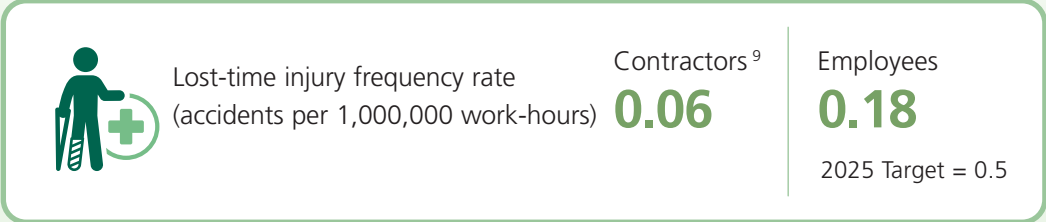
### Safety Trainings and Sharings

Supported by the Group Safety and Environmental Management Department of our parent company, HKCG, we arranged cross-functional collaborations within the renewable energy business, leading to the implementation of comprehensive measures to enhance safety management of energy storage. This year, we successfully conducted two specialised training sessions, the “2024 Energy Storage Safety Training” and the “HAZOP (Hazard and Operability Study) Professional Training”. These programmes focused on identifying and mitigating risks specific to energy storage operations. The trainings are designed to enhance employees’ safety awareness, strengthen risk management competencies, and collectively build a robust safety defence for energy storage operations.



### Enhancing Safety Performance

Towngas Smart Energy upholds the safety principles of “preventing problems before they arise”, understanding that safety demands unwavering attention. Comprehensive and thorough safety inspections are planned and implemented in multiple rounds throughout the Group’s operations. These rigorous assessments enable the immediate identification of potential risks, followed by prompt and effective countermeasures. Strict adherence to exacting safety standards is maintained across all operational aspects of the Group.



<sup>9</sup> Refers to Towngas Smart Energy and its parent company, HKCG, city-gas business, renewable energy business and gas resources business.

## United in Effort – Drawing a Blueprint for a Sustainable Society

The intrinsic connection between our operational practices and public safety is fully recognised by the Group, and governmental bodies at various levels maintain close scrutiny of our safety management. As such, project companies throughout the Group actively cooperate with and support governmental inspections and supervision to further collaborate with government departments, facilitate collective development of a robust safety culture, and ensure that gas safety is implemented effectively and comprehensively.

### Government Representatives at Various Levels Conduct Safety Inspections to Establish a Regular Inspection Mechanism

Leaders of the Xingyi Municipal Government conducted a safety supervision and inspection of Xingyi Hong Kong and China Gas Company Limited, focusing on the safety and preventive measures of gas facilities as well as the management and maintenance of gas equipment.

Senior officials from the Weifang Municipal Government carried out an assessment of safety production practices at Weifang Hong Kong and China Gas Company Limited, during which a thorough inspection of gas facility operational safety was conducted across various gate stations.

## Strengthening Community Safety

Recognising the profound importance of safety responsibilities, the Group actively engages with communities, promoting gas safety awareness among residents and ensuring that every household receives professional guidance.



### Promoting Safety Knowledge in the Community



The Group launched the “Gas Safety Inspection in Schools” initiative in Pingchang Hong Kong and China Gas Company Limited. Through this programme, potential hazards were promptly identified and eliminated via comprehensive safety knowledge dissemination and thorough inspections of gas equipment, thereby ensuring gas safety for both teachers and students.



Conducted specialised inspections of gas facilities in more than **20** schools



Community outreach programmes were conducted in Guilin Hong Kong and China Gas Company Limited to promote gas safety awareness. Residents received professional guidance on the proper use of gas appliances and had their questions patiently answered. This initiative contributed significantly to the safeguarding of gas usage throughout the communities.



Distributed about **800** gas safety information leaflets



To enhance public awareness of gas safety, Anqing Hong Kong and China Gas Company Limited delivered educational seminars at local primary schools, covering topics such as proper gas usage and emergency procedures for gas leakage. The sessions effectively enhanced public awareness of gas safety protocols through professional instruction and practical guidance.

The Group regularly conducts household safety inspections to proactively identify and address gas safety hazards to protect users' lives and property.



More than **8.59 million<sup>3</sup>** household safety inspections were conducted

<sup>3</sup> Refers to city-gas business only.

United in Effort – Drawing a Blueprint for a Sustainable Society

Co-Creating a Harmonious Workplace

In recognition of talent as the driving force behind corporate development, the Group dedicates substantial resources to attract top-tier professionals from diverse fields. We remain steadfast in our commitment to safeguarding employee entitlements, ensuring that our recruitment process embodies fairness and transparency. We offer a comprehensive array of compensation and benefits, prioritising the health and well-being of our workforce while providing professional training programmes for career growth. Our overarching objective is to cultivate an inclusive work environment where each team member can reach their full potential, aligning individual aspirations with organisational success.

Talent Recruitment

The legitimate rights and interests of all employees are respected and protected by the Group, maintaining fair and transparent recruitment procedures while supporting individual career advancement. In accordance with the Towngas Smart Energy Operation Guidelines on Corporate Performance Management and a closed-loop management system, employees receive equitable compensation remuneration with their contributions and to support their personal growth.

City-Gas Business

Performance assessments are conducted biannually with key assessment areas as follows – ensuring sound operation of the Group’s core business, promoting the development of new businesses, and contributing to the Group’s ESG performance.

Renewable Energy Business

We introduced a comprehensive evaluation system targeting quality, competency, and job performance, further enriching assessment criteria and analysing employee performance and contribution from multiple perspectives. Simultaneously, we integrated a 360-degree feedback mechanism into our talent development framework to enable continuous monitoring and offer feedback on performance results.

Gas Resources Business

We optimise the performance evaluation mechanism through a comprehensive five-level performance management model covering the “Group, segment, team, company, and employee” levels. Employee performance is assessed using a five-tier rating system, ensuring a fair and objective evaluation process.

Employee Pay Ratio (male to female)<sup>3</sup>



<sup>3</sup> Refers to city-gas business only.

We have also taken the initiative to engage with educational institutions, providing the young generation with career development opportunities through diversified channels.



Fostering Diversity and Inclusion

An inclusive and diverse workplace environment encourages employees to share their perspectives, unlocking their creativity and potential, thereby injecting innovative vitality into business development and underpinning long-term growth. Aligned with international initiatives such as the Universal Declaration of Human Rights and the International Human Rights Conventions, the Group ensures the integration of employees from varied backgrounds, genders, ages, nationalities, races, cultures, and health conditions. By upholding workers’ freedom of association and strictly prohibiting any form of bias or discrimination, we actively promote the development of a diverse and inclusive corporate culture.



The Group values feedback from employees at all levels and fosters an environment where they feel comfortable voicing concerns regarding discrimination, harassment, or other inappropriate behaviour. Moreover, we encourage employees to promptly report any workplace dissatisfaction or perceived unfair treatment.



<sup>10</sup> Refers to renewable energy business only.





## United in Effort – Drawing a Blueprint for a Sustainable Society

### Training and Development

The Group has curated an extensive library of learning resources designed to nurture staff development and enhance their skills. We continuously review and update our training courses and systems in line with industry trends, ensuring that every educational programme aligns with our employees’ professional aspirations and career goals.



Average Training Hours per Employee **62.3 hours**  
 Average Training Cost per Employee **HK\$1,167**

### Staying Abreast of Industry Trends

To further support employee growth and skills enhancement while strengthening adaptability to market dynamics, the Group collaborated with various stakeholders to conduct in-depth analyses of industry challenges and opportunities, jointly pursuing innovative solutions.

#### Tough Times Create Stronger Teams: Promoting High-Quality Development

A key strategic meeting was convened for the general managers of the mainland utilities which includes the senior executives from the city-gas business. Mr. Peter Wong Wai-yee, the Executive Director and Chief Executive Officer, presented a detailed analysis of the current business landscape. He emphasised the paramount importance of energy security and called upon management teams to adopt a visionary mindset and remain adaptable in responding to market dynamics while sustaining a sense of risk awareness.



Over **170** Group senior executives, regional and corporate general managers participated



#### Industry Development Analysis Workshop



Towngas Smart Energy hosted the “2024 National Market Workshop”, assembling both internal and external stakeholders to deliberate on the opportunities and challenges confronting the gas industry against the backdrop of “dual carbon” goals and corresponding policy frameworks, while also discussing the latest market development strategies.



Over **300** senior executives and industry experts participated

### Providing Professional Training for Talent

As the energy industry’s professional skill requirements continue to evolve, we have developed a comprehensive suite of gas technology curricula and a tiered training system to meet the industry’s growing demand for sustainable talent development.

#### City-Gas Business

To foster the application of the smart operation platform, the inaugural “Smart Operations Platform Engineer Training Programme” was successfully launched in Shanghai. This specialised curriculum addresses the growing demand for composite digital talents while fostering enhanced operational intelligence and efficiency in corporate environments, aligning with the latest technological advancements.



**20** trainees participated in the programme






United in Effort – Drawing a Blueprint for a Sustainable Society

Renewable Energy Business




This year's "Huangpu New Employee Induction Training" for the Group's renewable energy business continues to familiarise newcomers with the corporate culture, while providing participants comprehensive insights into the Group's development milestones and strategic positioning.


**3** training sessions were conducted for over **200** new employees




The "Ignite Programme" is an executive development initiative tailor-made for general managers of zero-carbon smart industrial parks and high-potential leadership candidates. Through multi-dimensional development methodologies including executive knowledge sharing, special topic research, and practical simulations, the programme holistically enhances participants' competencies in business expansion, corporate governance, and personal cultivation.


**18** participants attended **23** online and offline courses were conducted

Gas Resources Business



The Group's gas resources business offers a comprehensive training programme for newly joined management trainees while also actively providing employees with trainings related to the necessary knowledge and skills for their work and subsidise them to obtain professional qualifications.


 Over **100** training sessions were conducted





## United in Effort – Drawing a Blueprint for a Sustainable Society

### Caring for the Community

Since its establishment, Towngas Smart Energy has been deeply rooted in the Chinese mainland market, steadfastly upholding its mission of social contribution and actively engaging in public welfare initiatives to provide community-tailored support. We remain true to our original belief of “benefitting society and contributing to the community”, conscientiously fulfilling our corporate citizenship responsibilities to deliver warmth and empowerment to the public.

As of this year, our progress in community investment is outlined below.



Number of Volunteers  
**7,191**



Volunteer Service Hours  
over **160,000 hours**



Charity Investment  
over **HK\$5.8 million**<sup>4</sup>

### Promoting Inclusive Gas Services

With the development of cities and the improvement of residents quality of life, stable and reliable gas services are a crucial foundation for driving economic development and enhancing livelihoods. The widespread accessibility of gas services, tailored to diverse consumer segments, has become instrumental in fostering social harmony and progress.

#### Illuminate Life with Love – Towngas Smart Energy Enhances Gas Accessibility



In the ageing residential districts of remote communities, volunteers from Anqing Hong Kong and China Gas Company Limited extend personalised home assistance to vulnerable residents. This dedicated outreach programme ensures timely support for elderly living alone and persons with disabilities, addressing their concerns and practical needs through scheduled household visits.



A volunteering initiative led by Qiqihar Hong Kong and China Gas Company Limited has brought essential gas safety education and complimentary appliance replacement services directly to elderly residents living alone. This door-to-door programme enhances both the quality of life and safety standards for vulnerable senior citizens.

<sup>4</sup> Refers to Towngas Smart Energy and its parent company, HKCG, mainland utilities.

### Practising Community Services

As a socially responsible enterprise, we proactively engage in diversified community outreach initiatives to provide care and support for vulnerable groups and neighbourhoods. This year, we continue our active community visits to deliver warmth and assistance, taking concrete actions to foster community harmony and prosperity.

#### Rice Dumplings for the Community



We continued to organise the “Rice Dumplings for the Community” event this year. **46** enterprises participated in this event, and together made **17,832** rice dumplings and donated over **HK\$100,000** worth of materials.

#### Fuelling Lives with Love: Towngas Smart Energy Volunteer Team Participated in Blood Donation

A blood donation campaign in November this year garnered recognition from the Shenzhen Blood Centre, which awarded a Certificate of Appreciation to the Towngas Smart Energy Volunteer Team. This selfless initiative demonstrated vital support for urgent medical needs, exemplifying our commitment to life-saving community service.



United in Effort – Drawing a Blueprint for a Sustainable Society

Promoting Charitable Education

The Group promotes education through diversified courses and activities, providing support and care for children’s development. In these initiatives, we focus on nurturing their empathy and sense of social responsibility, helping them build confidence and learn to care for others. This lays the foundation for the next generation to become responsible citizens in the future.

Gentle Breeze Movement: Ignite the Path to Growth

The “Gentle Breeze Movement”, a key educational initiative of the Group since 2013, has provided extensive academic resources and support to students and teachers across dozens of schools.



Benefitting  
13 provinces



Donations to  
39 schools



Cumulative  
donations exceeded  
HK\$4.19 million



Benefitting over  
16,000  
individuals

Gentle Breeze Reaches Miluo

This year, the “Gentle Breeze Movement” extended its presence in Baitang Middle School in Miluo and brought along educational resources including integrated meeting systems, LED displays, nano blackboards, wireless projectors, and school uniforms. The initiative also offered gas safety awareness sessions, featuring educational videos to help students boost safety awareness of gas usage.



Cumulative donations worth  
of over HK\$260,000



Green Firefly Project Launched in Benxi to Promote Digital Education

The Group, in collaboration with the BEA Charity Fund, established the “Green Firefly Centre” at a school with nine-year complimentary education in Gaoguan Town, Benxi Manchu Autonomous County.

Through the provision of solar-powered education equipment, the creation of smart classrooms that integrate advanced teaching technology with low-carbon practices, and the delivery of an innovative educational experience for students, we managed to improve students’ education environment through digital applications.



Invested over HK\$210,000  
in upgrading education equipment

Since 2009, the Group has participated in the “Green Firefly Project” under the BEA Charity Fund, becoming the first corporate co-sponsor of the “Green Firefly Centre” initiative. Through years of dedicated effort, the programme has yielded fruitful outcomes:



Donated over  
HK\$1.91 million



Co-sponsored  
10 “Green Firefly Centres”



United in Effort – Drawing a Blueprint for a Sustainable Society

Case Study

Responding to National “Work Safety Month”, Ensuring “Everyone Talks Safety, Everyone Knows How to Respond”

As part of the 23rd National Work Safety Month in June 2024, Towngas Smart Energy has championed comprehensive safety initiatives under the theme “Everyone Talks Safety, Everyone Knows How to Respond”. Through regular safety inspections and educational programmes, the Group continues to foster a strong safety culture, safeguarding communities and properties and creating a more secure and reliable environment for gas consumption.



The Group’s Initiatives in Response to National Work Safety Month



**Peng Xi Hong Kong and China Gas Company Limited**  
We organised a fire safety and environmental protection knowledge competition, with questions covering national and Group safety policies, to enhance employees’ knowledge base.



**Guilin Hong Kong and China Gas Company Limited**  
We conducted publicity campaigns at Guilin Normal College Affiliated Chongwen Primary School, educating students about the risks of non-occupational carbon monoxide poisoning.



**Ziyang Hong Kong and China Gas Company Limited**  
Focusing on safety, we conducted emergency response drills and actively promoted gas safety education, enhancing the safety awareness of all employees and customers.



**Tongxiang Hong Kong and China Gas Company Limited**  
We launched comprehensive gas safety inspections for commercial and industrial customers to eliminate hazards and ensure safe gas usage. Additionally, we conducted LNG storage tank leakage drills and riser leakage emergency drills to enhance team collaboration and emergency response capabilities.



**Dafeng Hong Kong and China Gas Company Limited**  
We held an employee Work Safety Month kickoff meeting to communicate the spirit of safe operations to staff.










# Towards Carbon Neutral

## Initiating the New Green Era

Under the guidance of global climate change responses and China’s “dual carbon” strategic goals, we have fostered closer collaboration with our value chain partners, aiming to collectively mitigate climate risks and safeguard biodiversity. Through the establishment of zero-carbon smart industrial parks, optimisation of energy management systems, and refinement of environmental management mechanisms, we embrace the vision of our parent company, HKCG. The Group remains steadfastly committed to achieving carbon neutrality by 2050 or earlier, creating long-term value for stakeholders, and jointly opening a new green era.

### Key Highlights

|  Climate Change  |  Renewable Energy   |  Green Finance                     |
|---|--|---|
| <ul style="list-style-type: none"><li>The Group’s Scope 1 and Scope 2 GHG emissions have decreased by approximately <b>26%</b> compared to 2023</li></ul> | <ul style="list-style-type: none"><li>Deployed <b>128</b> zero-carbon smart industrial parks (accumulative)</li><li>Grid-connected photovoltaic capacity reached <b>2.3 GW</b> (accumulative)</li><li>The <b>first</b> “Energy-as-a-Service” project has been launched in Shenzhen</li></ul> | <ul style="list-style-type: none"><li>The issuance of the “Quasi-REITs” projects raised <b>RMB515 million</b></li></ul> |

Towards Carbon Neutral – Initiating the New Green Era

Management Approach

As an energy company, we actively respond to the national call for ecological civilisation and are committed to achieving the “dual carbon” goals. In this process, we strictly adhere to and fully implement relevant laws and regulations, including but not limited to the Environmental Protection Law of the People’s Republic of China, Law of the People’s Republic of China on Environmental Impact Assessment, the Regulations on the Management of Environmental Protection for Construction Projects, and the Directory of Environmental Impact Assessment Classification for Construction Projects.

Environmental Management

At the internal level, the Group has established environmental management systems, including the Management Guidelines for Environmental Protection, the Health, Safety and Environment Policy, the Employees’ Handbook for Environmental Protection, and the Operating Procedures for Wastewater Treatment. We strictly adhere to the Climate Change Policy and Environmental Policy of our parent company, HKCG. Simultaneously, we closely monitor the latest advancements in national and regional environmental protection policies to ensure that our internal systems and business development align with regulatory requirements. This vigilance enables us to make timely adjustments to our internal policies and measures.



23

projects companies obtained ISO 14001 Certifications

Environmental Management Structure

From the Board of Directors to various functional departments, Towngas Smart Energy and its parent company, HKCG, have established a multi-level ESG management system:



Environmental Risk Management

Towngas Smart Energy has established an environmental risk management system that encompasses risk identification and the implementation of management strategies. This system outlines strict environmental monitoring and reporting protocols in our daily operations, along with regular audits of our environmental performance.



For more detailed information, please refer to the Risk Management section of this report.

Climate Governance

Alignment with the recommendations of the Task Force on Climate-related Financial Disclosure (TCFD) has consistently been maintained by the Group’s climate change disclosure framework, following the disclosure recommendations of TCFD’s four pillars (governance, strategy, risk management, and metrics and targets) and referring to the requirements of IFRS S2 Climate-related Disclosures. Additionally, to comply with the new climate regulations implemented by the Hong Kong Stock Exchange effective 1 January 2025, all large-cap issuers are required to disclose climate-related financial information. The Group has analysed relevant requirements and reflected them in this year’s financial report.

For more detailed information, please refer to the Governance Structure section of this report and the Environmental Management Structure section of this chapter.

Scenario Analysis and Strategy

The Group has identified physical and transition risks related to the environment and climate through scenario analysis and assessed the potential impacts of these risks on our business. We have crafted a robust suite of climate and carbon reduction initiatives to bolster the Group’s climate resilience and adaptability. Our commitment lies in transforming climate-related risks into strategic opportunities, as we actively devise strategies to navigate and capitalise on environmental and climate-related risks and opportunities.

For more detailed information, please refer to the Climate Actions section of this chapter.

Towards Carbon Neutral – Initiating the New Green Era

Identifying, Assessing, and Managing Climate-related Risks

To evaluate the potential impacts of climate change on our assets, businesses and value chain, we conduct comprehensive climate risk assessments using various climate models and scenarios analyses. This helps us account for a wide range of potential impacts and uncertainties and prepare for future climate-related risks. To ensure comprehensive strategic planning and informed decision making for the future, we regularly review and update our assessments, strategies and scenario analysis to address emerging climate-related risks and opportunities within different timeframes. We also maintain open communication with stakeholders and explore strategies for strengthening our resilience against transition and physical climate-related risks. For more details, please refer to [the Guide](#) and sections below.

Physical Risks

Physical risks associated with climate change impacts can be broadly classified as acute (e.g., floods, droughts) and chronic (e.g., sea-level rise, temperature increases). In order to evaluate the impacts of physical risks present in our assets, three Representative Concentration Pathways (RCP) scenarios (RCP 2.6, RCP 4.5, RCP 8.5) were used. These scenarios ranged from limiting the global average temperature rise of 1.5°C to align with The Paris Agreement (RCP 2.6), to managing the challenges of a drastic increase in average temperature of 4°C (RCP 8.5).

In 2021, we conducted assessments for 100 major assets at asset level on the Chinese mainland. To extend the assessment coverage across the Chinese mainland, we included new projects and conducted physical risk assessments of over 300 assets in 2023-2024. Focusing on chronic risks, we used a climate model to identify climate-sensitive/vulnerable assets, i.e. assets most exposed to extreme impacts such as extreme temperature, rainfall and water stress.

In 2024, we continued to visit assets on the Chinese mainland to conduct physical risk assessments, aiming to gain a deeper understanding of their vulnerabilities and resilience to major disasters, and to ensure that effective systems are in place to withstand various climate stresses. To strengthen the management of climate-related physical risks, we have developed a climate change risk assessment checklist for gas facilities. For facilities with higher risk levels, we will conduct further analysis and assessment. We also held ESG and climate change trainings for managerial employees to show them climate impact projections for the assets, as well as to equip them with the knowledge required to tackle climate hazards in the future.

| Risk   | Time Horizon <sup>11</sup> | Potential Financial Implications  | Mitigation Plan/Response   |
|--|----------------------------|---|--|
| <b>Acute</b><br>Heavy rainfall and increased frequency and intensity of river floods | Medium to Long-Term        | ▲ Costs and ▼ revenue from asset damage<br>▲ Resilience measures upgrade expenses<br>▲ Insurance costs and claims | <ul style="list-style-type: none"><li>Review plan for adapting our infrastructure to climate change</li><li>Strengthen crisis management plans</li></ul> |
| <b>Chronic</b><br>Increased temperatures   | Long-Term                  | ▼ Revenue from gas-related services<br>▲ Operating costs due to energy use  | <ul style="list-style-type: none"><li>Diversify businesses to transform into a multi-energy provider</li></ul>   |



<sup>11</sup> Short-term runs to 2025, aligned with our near-term targets that cover carbon reduction, energy efficiency, etc.; medium-term runs to 2035, aligned with the Group's plan to replace fossil fuels in phases by introducing and using zero-carbon fuels; long-term runs to 2050, aligned with the Hong Kong's Climate Action Plan 2050 to achieve carbon neutrality before 2050.



Towards Carbon Neutral – Initiating the New Green Era

Transition Risks and Opportunities

In 2020, we analysed various assumptions under four self-developed scenarios based on the International Energy Agency’s (IEA) World Energy Outlook 2019, which consider technological advancements and policy implementations. This enabled us to identify potential transition risks that could impact the Group under different time horizons. To ensure our analysis aligns with the latest trends, we updated these scenarios using the Network for Greening the Financial System (NGFS) scenarios and developed the Net Zero 2050 Scenario to align with the goal of limiting a global temperature rise to 1.5°C. We then prioritised top transition risks under the Net Zero 2050 Scenario and Below 2°C Scenario specifically for gas-related businesses.

| Risk   | Time Horizon <sup>11</sup> | Potential Financial Implication  | Mitigation Plan/Response   |
|--|----------------------------|--|--|
| <b>Policy and Legal</b><br>Mandates on/regulation of products and services   | Short to Medium-Term       | <div><div>Revenue from gas-related services</div><div>Compliance and insurance costs</div><div>Income from low-carbon offerings</div></div>          | <div>Align with government policies for low-carbon development</div> <div>Reduce GHG emissions via low-carbon energy and efficiency improvements</div> |
| <b>Technology</b><br>Technological improvements or innovations to support the transition to a lower carbon economy | Medium to Long-Term        | <div>Investment in new technologies</div> <div>R&amp;D spending</div> <div>Operational costs due to energy efficiency improvements</div>             | <div>Reduce operational GHG emissions</div> <div>Support R&amp;D with proprietary technologies</div>   |
| <b>Market</b><br>Shifting consumer behavior  | Medium to Long-Term        | <div>Revenue from gas-related services</div> <div>Operating costs due to raw material price changes</div> <div>Income from low-carbon products</div> | <div>Diversify businesses to transform into a multi-energy provider</div>  |
| <b>Reputation</b><br>Shareholders are likely to divest from fossil fuels and invest in low-carbon businesses       | Long-Term                  | <div>Change in capital availability</div> <div>Communication costs</div>   | <div>Enhance open disclosure for increased capital availability</div>  |

<sup>11</sup> Short-term runs to 2025, aligned with our near-term targets that cover carbon reduction, energy efficiency, etc.; medium-term runs to 2035, aligned with the Group’s plan to replace fossil fuels in phases by introducing and using zero-carbon fuels; long-term runs to 2050, aligned with the Hong Kong’s Climate Action Plan 2050 to achieve carbon neutrality before 2050.

In our transition into an integrated clean energy supplier, we have been diversifying our business and financing low-carbon initiatives. These projects, which include energy efficiency improvements, and construction and operation of renewable energy facilities, are considered eligible under the “Chinese Taxonomy”<sup>12</sup>. The revenue and investment of the Group’s low-carbon businesses as compared with its gas business on the Chinese mainland (taxonomy-eligible) are shown below:



Targets and Metrics

We have developed a comprehensive set of environmental and climate indicators and targets in collaboration with our parent company, HKCG, in pursuit of Towngas Smart Energy’s objective of achieving carbon neutrality by 2050 or sooner. Furthermore, to ensure that the progress of these indicators and targets remains aligned with industry best practices, we are committed to the ongoing enhancement and expansion of our monitoring framework.



<sup>12</sup> The Green Bond Endorsed Projects Catalogue (2021 Edition) was jointly announced by the People’s Bank of China, the National Development and Reform Commission and the China Securities Regulatory Commission on 21 April 2021. It identifies projects or economic activities that are considered as green and is referred to as the “Chinese Taxonomy”.

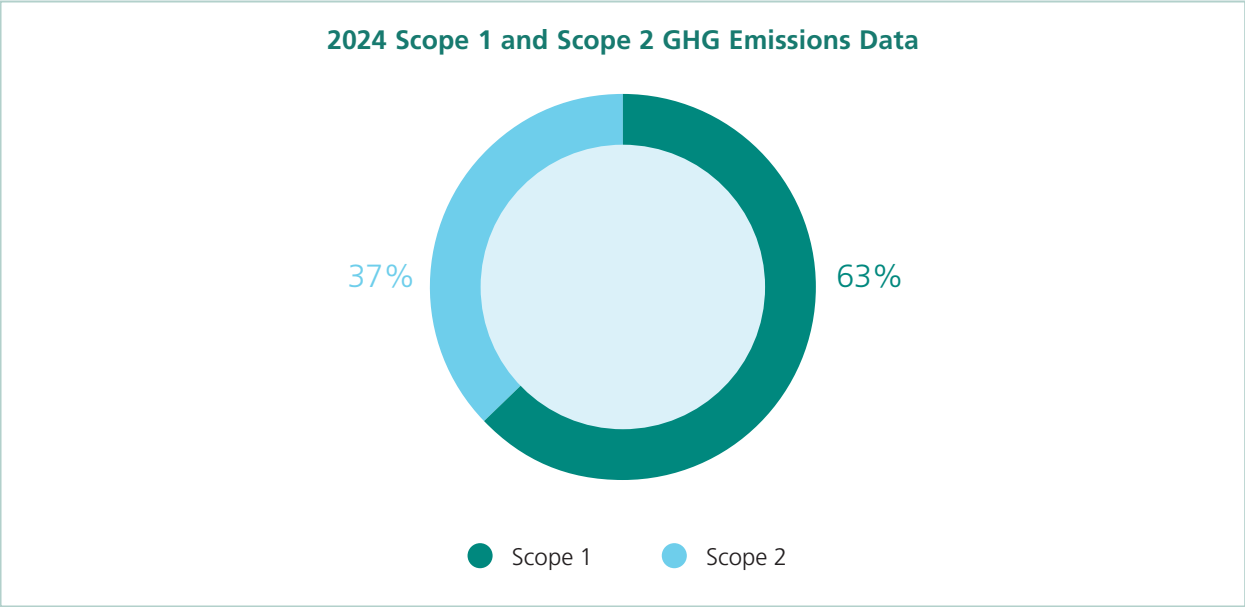
Towards Carbon Neutral – Initiating the New Green Era

GHG Footprint

Scope 1 and Scope 2 GHG Emissions

|                           | Scope 1 Emissions (tCO <sub>2</sub> e) <sup>13</sup> | Scope 2 Emissions (tCO <sub>2</sub> e) <sup>14</sup> | Carbon Emission Intensity (tCO <sub>2</sub> e/ million m <sup>3</sup> of gas sales) |
|---------------------------|--|--|---|
| City-Gas Business         | 10,461   | 20,523   | 6.1   |
| Gas Resources Business    | 3,150  | 7,496  |   |
| Renewable Energy Business | 34,580   | 809  |   |

This year, the Group’s Scope 1 and Scope 2 GHG emissions were 77,019 tCO<sub>2</sub>e, decreased by **26%** compared to 2023.

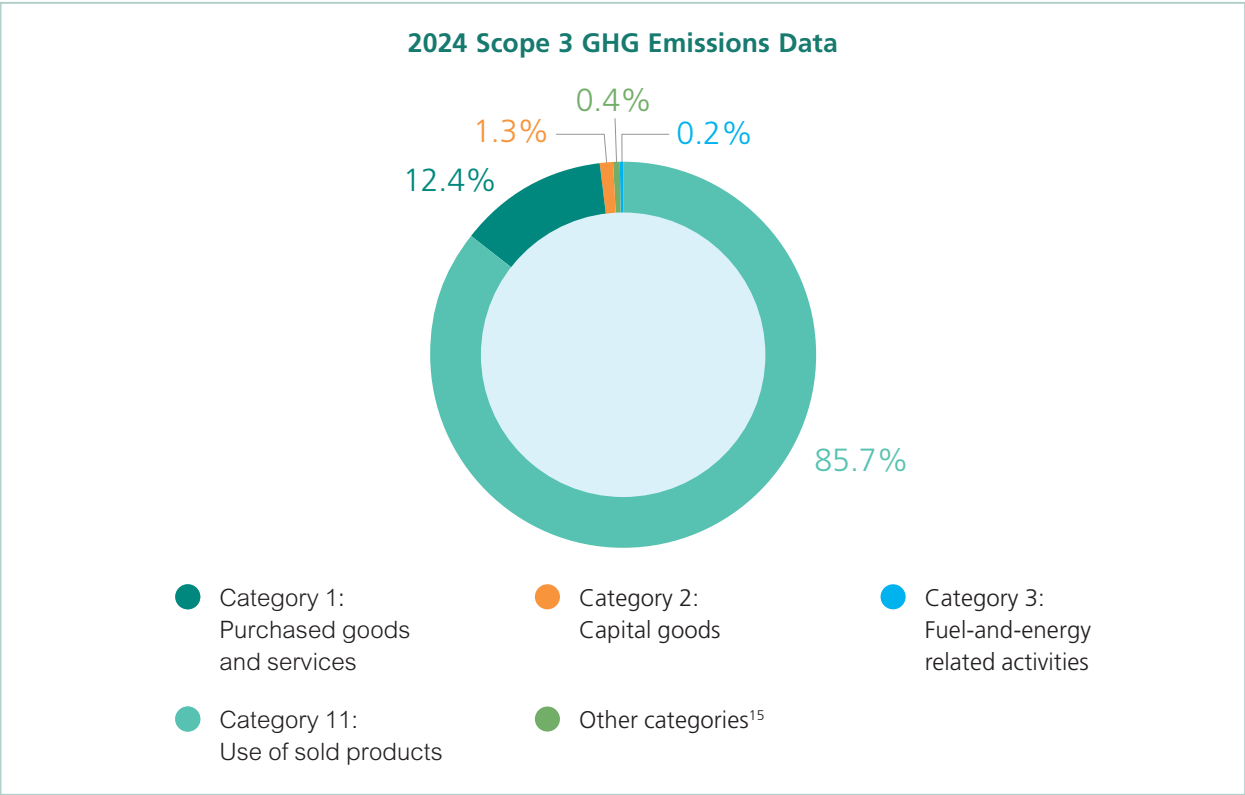


<sup>13</sup> Scope 1: Direct emissions owned or controlled by the company.  
<sup>14</sup> Scope 2: Indirect emissions from purchased energy.

Scope 3 GHG Emissions

To emphasise the significance of GHG emissions in the value chain, Towngas Smart Energy has conducted a comprehensive review of Scope 3 emissions to gain a more complete understanding of its carbon footprint in the value chain. Based on this analysis, the Group has updated the sources of carbon emissions included in the Scope 3 carbon footprint calculation. The total Scope 3 GHG emissions in 2024 were 11,685,000 tCO<sub>2</sub>e, with most significant source comes from Category 11 (use of sold products), as categorised by the GHG Protocol. These emissions account for over 80% of our value chain emissions.

| Scope 3 Emissions (tCO <sub>2</sub> e)         |            |
|--|------------|
| Category 1: Purchased goods and services       | 1,454,000  |
| Category 2: Capital goods                      | 150,000    |
| Category 3: Fuel-and-energy related activities | 18,000     |
| Category 11: Use of sold products              | 10,014,000 |
| Other categories <sup>15</sup>                 | 49,000     |



<sup>15</sup> Other categories included Category 5: Waste generated in operations, Category 6: Business travel, and Category 7: Employee commuting.

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Climate Actions

Towngas Smart Energy actively responds to the government’s carbon reduction blueprint to address extreme weather caused by climate change. To this end, we are vigorously promoting coal-to-gas conversion and developing our renewable energy business to advance a new era of low-carbon energy.

In collaboration with our parent company, HKCG, we have established a carbon reduction task force for our operations on the Chinese mainland. This task force is responsible for developing response strategies, implementing carbon reduction measures, and monitoring their effectiveness in business operations.

City-Gas Business

With a significant rebound in national natural gas demand, the Group is expanding “Gas+” services, targeting premium industrial clients and delivering integrated energy solutions for public institutions. Our commitment lies in providing low-carbon, high-efficiency, one-stop energy service solutions.

The energy density of city-gas sales for the year was 275 GJ per million cubic metres.

Zibo Nanhan Chemicals Project

Towngas Smart Energy assisted Zibo Nanhan Chemicals in achieving its energy saving and emission reduction goals by constructing a residual heat recovery system for the flue gas of gas-fired heaters. Under the premise of ensuring the normal operation of the original production system, a residual heat recovery device was added to the flue of the gas-fired heaters. This device converts the residual heat from the exhaust gas into hot water for use in steam generators, effectively reducing the company's energy consumption and minimising the waste of secondary energy.

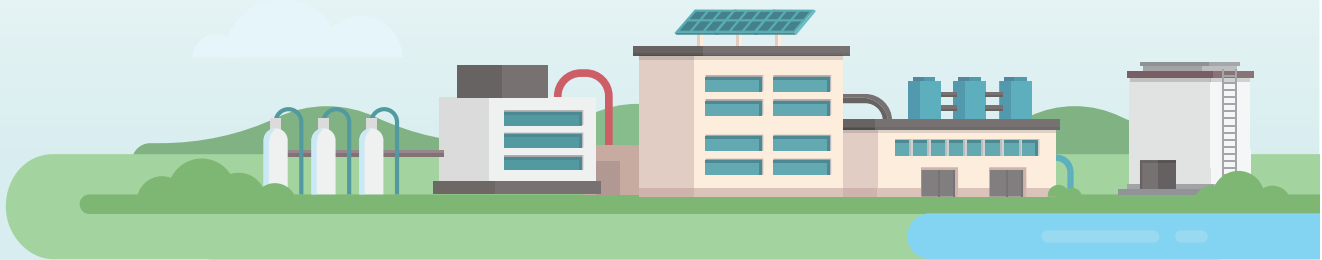
Energy saving rate of **3%**  
Approximately **524 tonnes** of annual carbon reduction



Lianxi District Government Building

The Group has significantly enhanced the electricity efficiency of the government building by upgrading its water, electricity, and gas facilities, introducing lighting control and intelligent computer room systems. Concurrently, the replacement of gas boilers with introducing air-source heat pumps has markedly reduced energy consumption and maintenance costs while maintaining comfort levels. Moreover, the Group has launched a self-developed smart platform that enables energy usage monitoring and remote data transmission. Through big data analysis and cloud services, the platform assists the government building in achieving meticulous management and a green transition.

Energy saving rate of **10%**  
Approximately **288 tonnes** of annual carbon reduction





## Towards Carbon Neutral – Initiating the New Green Era

### Renewable Energy Business

Towngas Smart Energy actively aligns with national policies to promote the widespread application of renewable energy. By integrating photovoltaic surplus power into storage systems and offering comprehensive energy services that include “photovoltaic, energy storage, trading, and operation and maintenance” as well as “Energy as a Service (EaaS)”, the Group fully unleashes the value of photovoltaic assets. This approach assists industrial customers in smoothly transitioning to low-carbon energy solutions.

#### One-Stop Energy Management Supporting Low-Carbon Transition

Towngas Smart Energy, with the EaaS business model at its core, offers bespoke integrated energy solutions to commercial and industrial clients. By seamlessly combining photovoltaic power generation, intelligent energy storage, and flexible power sales services, it not only effectively reduces operational costs for customers but also significantly advances the achievement of carbon reduction goals. This marks an important milestone for Towngas Smart Energy in the development of renewable energy and smart energy systems.

#### First EaaS Renewable Energy Project:

**An automobile production plant in Pingshan, Shenzhen**

Factory roof area of 75,000 square metres

- Installed solar panels on the roof to provide green power for the factory
- Implemented an energy storage system to store surplus power and utilise off-peak electricity during peak demand, significantly enhancing the microgrid’s operational efficiency and economic performance



Distributed photovoltaic capacity of **8 MW**  
Producing over **8.8 million kWh** of green electricity annually



Reducing **4,590 tonnes** of carbon dioxide annually  
Saving **RMB2 million** in electricity bills annually

### Gas Resources Business

To further strengthen the energy supply chain system, the Group established a dedicated business segment responsible for gas resources management last year. This business segment integrates procurement, transmission and distribution, and storage into a one-stop service, enhancing resource scheduling efficiency through digital and intelligent operations, and building a more resilient energy supply network.

#### Sichuan Gas Emergency Peak-Shaving Reserve Base Project



Reducing carbon emissions by approximately **1,785 tonnes** annually

The first phase of the large-scale emergency peak shaving and storage base in Yanling Park of Weiyuan Economic Development Zone, Sichuan, was completed and entered trial operation in September 2024. It operates with a 60,000m<sup>3</sup> LNG storage tank and supporting pipeline facilities. These are equipped with a natural gas contingency liquefaction device with a daily processing capacity of 500,000m<sup>3</sup> and related supporting facilities. The project demonstrates its commitment to green and low-carbon concepts with over 60 innovative emission reduction measures implemented throughout various stages of the project, covering process optimisation, equipment upgrades, intelligent control, and resource recycling. Through the adoption of advanced energy saving technologies, we significantly improve energy efficiency.



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Gas Leakage Management

Towngas Smart Energy prioritises effective management systems to prevent gas leakage and minimise GHG emissions and air pollution from our operations, in response to increasingly stringent environmental regulations. We implement various emission reduction strategies and technologies, including advocating for equipment modernisation and process improvements at project companies. We enhance pipeline integrity maintenance and improve emergency plans for gas pipeline networks, ensuring that our GHG emissions and gas leakage management remain highly efficient.



Pipeline leakage rate\*  
**0.045-0.13%**

\* Leakages primarily occur due to third-party damage, pipeline commissioning/decommissioning and permeation.



Collaborative Low-Carbon Development

The Group is committed to establishing a diversified sustainability partnership network. By strengthening strategic collaborations with government entities, local communities, and international organisations, we deliver tailor-made clean energy solutions for clients. Through continuous advancement in innovative technologies and green energy transition, we actively support cities in achieving their low-carbon development goals to a more sustainable future.

| Climate-Related Partnerships  |   |
|---|---|
| <b>Climate Governance Initiative (CGI) Hong Kong Chapter</b>                | As one of the eight founding partners in Hong Kong, Towngas Smart Energy is committed to mobilising corporate boards of directors to address climate change in their business operations, promoting clean energy and environmental protection |
| <b>Carbon Neutrality Committee of China Energy Conservation Association</b> | Towngas Smart Energy, as a member of the association, supports innovative demonstration projects in the field of carbon neutrality  |
| GHG Emission Reduction-Related Partnerships                                 |   |
| <b>China Oil and Gas Methane Alliance</b>                                   | Towngas Smart Energy, as a member of the Alliance, helps to achieve the goal of “reducing the average methane emission intensity in natural gas production to below 0.25% by 2025”  |
| <b>Energy and Environmental Service Industry Alliance</b>                   | Towngas Smart Energy, as a member of the Alliance, supports and serves as a corporate representative at the annual summit of the energy and environmental services industry   |

Empowering Customers for Carbon Reduction

In the blueprint for a sustainable future, customers, as primary energy users, are the key stakeholders in achieving sustainability goals. As pioneers in innovative integrated energy services, we are committed to developing smart, low-carbon solutions for our customers. Through close collaboration with customers and other stakeholders, the Group is accelerating the establishment of a sustainable ecosystem to drive the green transformation of the industry.

Zero-Carbon Technological Partnerships

We actively establish strategic partnerships with governments entitles and industry stakeholders to gain deep insights into the decarbonisation needs across various sectors. By leveraging our strengths in energy and deploying innovative digitalisation solutions, we deliver a range of customised integrated energy solutions to support our partners across industries in achieving their carbon neutrality goals.

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Smart Platform Research and Development

Towngas Smart Energy drives energy transition and digital innovation through its proprietary intelligent platform, offering cutting-edge carbon and energy management solutions. By optimising energy assets and streamlining operations, the platform supports corporate clients in achieving sustainable growth and long-term value in their low-carbon journey.

Digitalisation Service Empowerment



**Tera Planet**  
 Through our strategic focus on Integration, Decarbonisation and Digitalisation, we deliver intelligent management and optimisation services across both energy supply and consumption sectors. The Group enables customers to engage in carbon-electricity market transactions, creating tripartite benefits through enhanced management efficiency, energy conservation with carbon reduction, and revenue growth.

Photovoltaic Star

By leveraging technologies such as the IoT and big data, we achieve comprehensive monitoring and intelligent analysis of power stations. This supports efficient operation and maintenance, as well as safety management, thereby providing a solid foundation for the stable operation and intelligent maintenance of photovoltaic power stations.



**Operation Star**  
 Building on a unified standard equipment platform, we optimise the operation and maintenance team, allocate resources efficiently, and enhance operation and maintenance efficiency while reducing operational risks through the application of digital intelligence, IoT, and mobile technology.

Technology Application Centre (TAC)

Innovation is the key driver of transformation in the energy sector and a vital component of sustainable development. As the first Hong Kong-invested clean energy research and development institution in the Guangdong-Hong Kong-Macao Greater Bay Area, TAC focuses on areas such as photovoltaics and energy conservation, energy storage, hydrogen energy, energy digitalisation, green fuels, and carbon capture, utilisation, and storage (CCUS).

TAC Multiple Research Achievements Released, Pioneering New Paths for Low-Carbon Energy

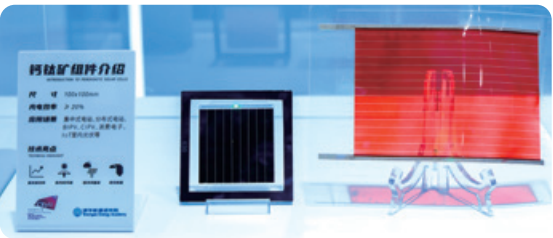
This year, the Group served as a co-organiser of the “2024 International Digital Energy Expo” held at the Shenzhen Convention & Exhibition Centre, where the theme “Gas” showcased innovative strengths in the energy sector. TAC highlighted the “Perovskite Photovoltaic Cell,” jointly developed with City University of Hong Kong, which is at the forefront of innovation in the renewable energy industry. Several cutting-edge technological achievements from TAC were also prominently displayed, including energy routers, photovoltaic intelligent circuit breakers, MEMS hydrogen sensors, aqueous zinc ion batteries, and energy storage management systems.





## Towards Carbon Neutral – Initiating the New Green Era

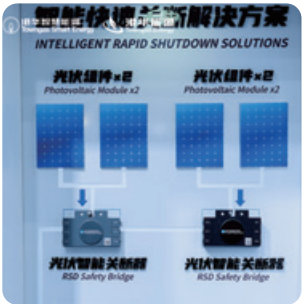
Perovskite Photovoltaic Cell



TAC is partnering with a research team from City University of Hong Kong to address key challenges in perovskite photovoltaic technology. The next-generation large-area perovskite photovoltaic cells utilise innovative, eco-friendly encapsulation techniques, achieving significant improvements in power conversion efficiency and long-term stability. These advancements pave the way for scalable and commercially viable production.

Energy Router

The energy router launched this year features a RISC-V application processor and leverages AI-driven intelligent scheduling algorithms to efficiently manage energy distribution and load regulation across various sources and users. It supports bidirectional energy flow control, optimises power supply and demand matching, facilitates greater utilisation of photovoltaic energy, enhances grid flexibility, and helps reduce demand charges.





TAC currently holds a total of **50** authorised patents and registered software copyrights. They have also unveiled for the first time **8** research achievements covering clean energy fields such as photovoltaic, energy storage, and hydrogen energy.



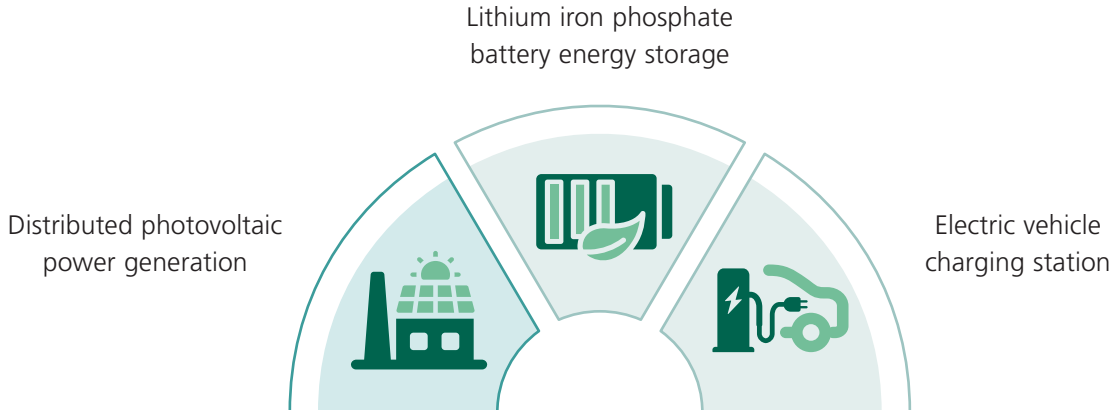
## Natural Resources Management

### Energy Management

We are committed to enhancing energy management efficiency throughout the operational cycles and the entire value chain. By actively introducing energy-saving and environmentally-friendly technologies, replacing outdated equipment and processes, and monitoring energy performance, we improve energy utilisation efficiency. These approaches reduce GHG emissions and lowers costs, generating long-term benefits for stakeholders.

Inclusion of Smart Elements to Achieve Energy Conservation and Consumption Reduction

Smart energy integration solutions are implemented during the construction of new office buildings by the Group, combining distributed photovoltaic power generation, energy storage systems, and electric vehicle charging facilities with Building Integrated Photovoltaic (BIPV) architectural design, totalling 172 kWp capacity. The system is installed in areas including the main and auxiliary building rooftops, carports, and underground garage entrances. We also utilise cadmium telluride thin-film photovoltaic glass, ensuring aesthetic appeal while achieving multiple environmental benefits, including energy conservation, consumption reduction, and minimised roof temperature increases. The Group's skillful integration of green technology with humanistic care, the rooftop photovoltaic areas are designed to double as staff relaxation spaces.






Towards Carbon Neutral – Initiating the New Green Era


Water Resources Management

Beyond energy management, the Group pays particular attention to the sustainable use of water resources and is committed to comprehensively improving resource efficiency. We effectively reduce operational risks through the implementation of water conservation measures and water recycling initiatives.



Water Saving Measures


- Regularly inspect and maintain water supply and consumption equipment, detect leaks, and address potential water leakage issues promptly
- Install water flow sensors to monitor abnormal water consumption in real-time
- Encourage employees to enhance water saving awareness in their daily work by strengthening monitoring and promotion




Recycling Measures

- Introduce a closed-loop water recycling system to filter and reuse water resources, thereby reducing the use of fresh water
- Several office buildings are equipped with rainwater recovery and secondary utilisation systems, recycling rainwater for cleaning and irrigation


Wastewater from production and operational processes constitutes Group’s primary source of effluent. All project companies must strictly comply with the Group’s Management Guidelines for Environmental Protection, ensuring compliance with both local regulations and internal discharge standards.




**Classification:**  
Separate treatment of industrial wastewater and domestic sewage.



**Wastewater Treatment:**  
Construction of wastewater treatment facilities, including collection sump, filtration basin, and firewater retention pond, in compliance with local operational regulations.



**Strict Inspection:**  
Regularly commission a third-party testing organisation to sample and monitor the sewage, and issue relevant qualified test reports to reduce the risk of environmental pollution caused by sewage discharge.



**Reclaimed Water Reuse:**  
The majority of reclaimed water from the centralised wastewater treatment plant undergoes filtration and is reused for landscape irrigation within the facility. The remaining effluent is discharged into the municipal sewerage system, strictly complying with local discharge standards.



Water Intensity = **99m³/ million m³ of gas sales** (City-Gas Business)

Waste Management

We are committed to reducing waste generated from our operations at the source, striving to minimise the production of related waste. On the foundation of actively implementing our own waste reduction measures, we also encourage proper waste management throughout the business value chain and across all project companies, collectively promoting the sustainable development of the circular economy.

Non-Hazardous Waste

Dedicated to minimising waste generation, efforts are made to reduce waste at source while progressively enhancing recycling rates for recyclable materials.

**Waste Separation**  
Set up recycling bins to separate paper, plastic, and metal, enabling staff members to effectively segregate waste.


**Reuse of Idle Items**  
Set up an “Idle Office Items Recycling Point” in the office building to collect temporarily unused office items, facilitating employees to borrow these items when needed instead of purchasing new ones.

Hazardous Waste

The generation of hazardous waste is avoided wherever possible, with non-hazardous alternatives utilised whenever feasible. Any unavoidable hazardous waste is transferred to qualified waste management organisations, ensuring that such materials are subject to detoxification treatment prior to disposal.

**Recycling of Used Solar Panels**  
The recovery and processing of decommissioned Solar panels have been implemented by the Group to minimise the release of harmful elements (such as lead) from improper disposal, thereby preventing contamination of soil and water resources.

**Used Battery Recycling**  
Installed battery collection containers throughout office facilities to facilitate the proper segregation and recycling of used batteries by our employees.



Intensity of hazardous waste:  
**0.005 tonnes/ million m³ of gas sales** (City-Gas Business)

Intensity of non-hazardous waste:  
**14 tonnes/ million m³ of gas sales** (City-Gas Business)

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Green Office

The Group highly emphasises that environmental consciousness is integrated into our daily operation through the active implementation of green office initiatives to conserve electricity and water while reducing waste, coupled with ongoing relevant training. We are committed to continuously promoting the realisation of sustainability culture throughout our organisation.

Establish Internal Regulations

- Enhance staff awareness of green office practices such as power conservation, water saving, paper usage reduction, and implementing waste separation

Strengthen the Implementation of Rewards and Consequences

- Recognise employees or departments with outstanding contributions to green office initiatives
- Require education and rectification for employees or departments that negatively impact sustainable development

Enhance Stakeholder Participation

- Increase the promotion of various green office measures and recommendations within the office area
- Encourage stakeholders to participate in energy saving activities, such as “Earth Hour”
- Organise green and environmentally friendly team building activities to enhance employees’ environmental awareness and integrate it into daily office practices



Protecting Natural Capital and Biodiversity

The Group is dedicated to mitigating the impacts of climate change, pledging to avoid deforestation within operational areas and to respect the interests of indigenous people throughout the energy transition process. We also actively preserve ecosystems and biodiversity through pollution reduction and natural resource protection.

Governance of Natural Capital

Following the release of recommendations by the Taskforce on Nature-related Financial Disclosures (TNFD) in 2023, Towngas Smart Energy, together with its parent company, HKCG, actively responded to the TNFD framework by conducting in-depth life cycle analyses of the businesses and publishing the Guide based on the analysis results. Initial insights into the Group’s reliance on natural capital have been gained by the ESG Committee, with discussions focusing on potential ecosystem impacts from our operations to help formulate further response measures.

The analysis results indicate that the majority of the Group’s operational sites and projects currently have a relatively minor impact on biodiversity. Nevertheless, we remain committed to reducing the ecological impact of our operations.

Nature Risk Assessment and Management

|                                    |  |
|------------------------------------|--|
| Assessment Tools                   | Integrated the nature risk assessment recommended by TNFD, consisting of four steps: Locate, Evaluate, Assess, and Prepare (LEAP), as well as the “Exploring Natural Capital Opportunities, Risks and Exposure” (ENCORE) tool.       |
| Assessment Scope                   | Selected 117 analysis scopes, including 100 prioritised locations identified in the TCFD report and 17 projects with potential impact on nature.   |
| Location Prioritisation            | Through the Integrated Biodiversity Assessment Tool (IBAT), we identified locations with high biodiversity value and prioritised them based on the overlap between direct and indirect impacts of sites and biodiversity indicators. |
| Risk Identification and Assessment | Assessment is based on dependencies and impact drivers identified in business activities:<br>1. Risk drivers<br>2. Transmission channels<br>3. Business impacts  |
| Risk Mitigation and Management     | To address identified risks, we implement effective biodiversity risk mitigation and management strategies across our operations and value chain. Through cross-departmental collaboration, we actively safeguard biodiversity.      |
| Risk Monitoring and Reporting      | To ensure the effectiveness of these measures, we have established a comprehensive review and monitoring process, and report on our progress regularly.  |
| Risk Assessment Results            | 64 high biodiversity value locations have been identified, of which 11 are within 10 kilometres of key biodiversity areas, and 4 of them are also within 10 kilometres of protected areas.   |



## Towards Carbon Neutral – Initiating the New Green Era

### Ecological Protection in Action

Following the completion of the ecosystem risk assessment and the identification of critical threats, we continue to enhance risk management and collaborative actions. We maintain close communication with various stakeholders to jointly develop response plans. By integrating resources and optimising strategies, we are dedicated to expanding the impact of our nature conservation efforts and promoting the health and sustainable development of ecosystems.

#### Low-Carbon Environmental Protection Campaign

Towngas Smart Energy initiated the “Low-Carbon Environmental Protection Campaign” to “Recharge the Earth” with greenery. The programme aims to encourage employees to adopt green and low-carbon lifestyles through various means, such as voluntary tree planting, hiking while collecting roadside waste, and more. The campaign featured five core initiative themes, including “Towngas Tree Planting Day”, “Earth Hour”, “Eco-Classroom”, “Reinvent and Renew”, and “A Fresh Start”.


**1,463 trees** and **953 potted plants** were planted through this year’s low-carbon environmental protection activities



### ESG Investment Strategy

Towngas Smart Energy has consistently been dedicated to developing zero-carbon businesses. The Group continues to expand its ESG investment scope, primarily investing in green projects such as energy efficiency improvement initiatives and the construction and operation of renewable energy projects. Concurrently, we are actively exploring internal carbon pricing mechanisms, incorporating carbon pricing into the investment decision-making process to identify low-carbon investment opportunities.

### Green Financing

A significant breakthrough in green finance and ESG investment has been achieved by Towngas Smart Energy with the successful issuance of the first renewable energy-focused Zero-Carbon Smart Phase 1 Asset-Backed Securities Programme (Carbon Neutral) (Quasi-REITs) on the Shenzhen Stock Exchange. The issuance recorded a 2.5-fold oversubscription, underscoring market confidence in our sustainability initiatives. To further strengthen the Group’s competitive advantage in the zero-carbon transition, we will direct all raised funds to quality assets with stable cash flows, including renewable energy facilities such as rooftop photovoltaic power generation and energy storage stations.

**Quasi-REITs**

 The issuance scale of this “Quasi-REITs” project has reached **RMB515 million**



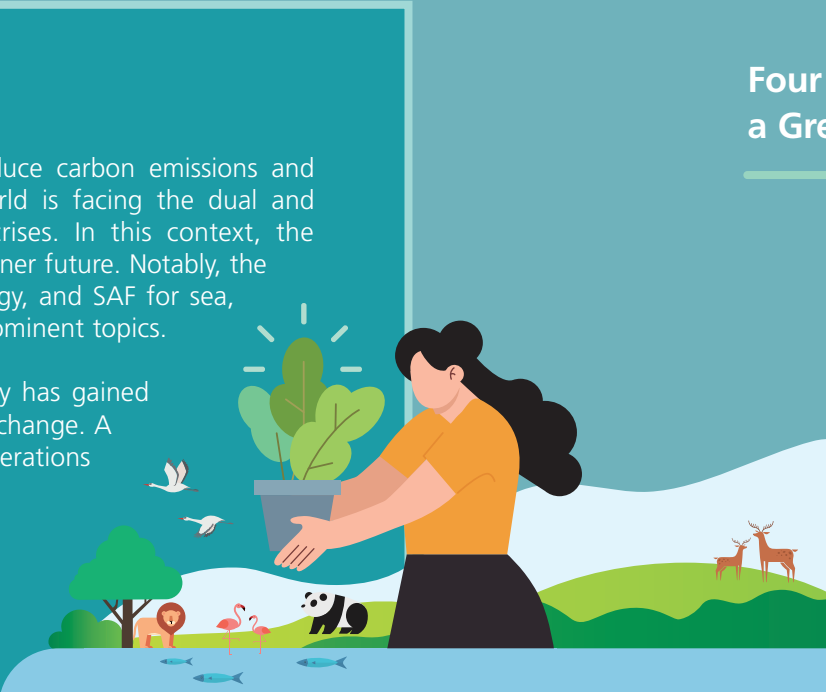
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Case Study

Biodiversity and New Energies Symposium  
Collaborating for a Green Future

Governments across the globe are actively working to reduce carbon emissions and accelerate the transition to sustainable energy, as the world is facing the dual and escalating challenges of climate change and ecological crises. In this context, the development of new energies is essential for achieving a greener future. Notably, the research and application of green methanol, hydrogen energy, and SAF for sea, land, and air transportation respectively, have engaged as prominent topics.

As corporate efforts in ESG deepen, the issue of biodiversity has gained increasing attention due to its close connection with climate change. A major challenge now lies in incorporating biodiversity considerations into risk assessments and business operations.



Four Themes for  
a Green Future

Entering the Clean Energy Age and Promoting the Development of the Hydrogen Industry

Supporting New Energy Research and Development to Promote Green Transformation of the Transportation Industry

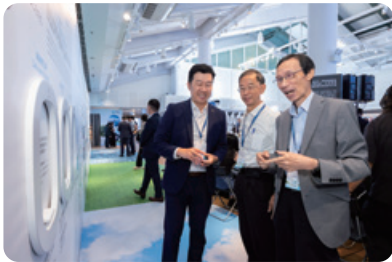
Corporates Enhancing Information Disclosure to Manage Nature-Related Risks and Opportunities

Coexisting with Nature Harmoniously by Balancing Development and Ecology Conservation

Biodiversity and New Energies Symposium

In response to National Ecology Day on 15 August, Towngas Smart Energy, together with its parent company, HKCG, and sustainability partner, the Hong Kong Management Association, co-hosted the Biodiversity and New Energies Symposium at the Hong Kong Maritime Museum, aiming to foster cross-sector collaboration, inject new momentum into biodiversity conservation and new energies development, and jointly create a sustainable future. The Symposium featured keynote speeches and panel discussions by experts from various sectors, focusing on pressing topics such as opportunities and challenges in green transportation energy sources, the latest developments in nature-related ESG disclosures and regulations, and how businesses can integrate biodiversity considerations into their operations.

Over 5,000 participants joined the Symposium in person or via live streaming, including representatives from the government, academia, corporations, foreign consulates and trade organisations, reflecting the global focus on new energy and biodiversity topics. Attendees gained in-depth insights into the latest trends and development and shared successful corporate case studies, collectively advancing the green transition towards a sustainable future.







# Effective Collaboration

## Upgrading the Value Chain

The value chain is inherently interconnected, where decisions made at any stage can impact our overall sustainability performance. To uphold excellence across all areas, we implement rigorous controls throughout the entire value chain. In our upstream operations, we work closely with suppliers to establish responsible, efficient, and transparent supply chain management systems that promote a green transition in the procurement of raw materials and equipment. In our downstream activities, we prioritise understanding and meeting customer needs, continuously enhancing our service quality to deliver exceptional value to our diverse customer base.

### Key Highlights



| Supplier Management   | Service Quality Management   |
|---|--|
| <ul style="list-style-type: none"><li>• <b>100%</b><sup>5</sup> of new suppliers were screened using ESG criteria</li><li>• Over <b>90%</b><sup>6</sup> of critical tier 1 suppliers have used the S-Carbon</li></ul> | <ul style="list-style-type: none"><li>• Customer satisfaction rate: <b>96%</b><sup>5</sup></li></ul> |

<sup>5</sup> Refers to Towngas Smart Energy and its parent company, HKCG, city-gas business.  
<sup>6</sup> Based on the total procurement value of products and materials (refers to city-gas business only).



## Effective Collaboration – Upgrading the Value Chain

### Management Approach

In line with the national strategy to foster a sustainable business ecosystem, Towngas Smart Energy is adopting to development trends by continuously improving our supply chain management system and customer service mechanisms.

Supply chain management practices at Towngas Smart Energy adhere to the Bid Invitation and Bidding Law of the People’s Republic of China, alongside the Sustainable Purchasing Policy and the Code of Practice for Suppliers issued by the parent company, HKCG. We clearly define supplier responsibilities and obligations regarding ESG risk management across various policies, and drive suppliers to improve sustainability performance through ongoing monitoring.

We are dedicated to satisfying our customers’ diverse needs for service excellence. To standardise customer service operations, the Group has introduced the Customer Services Code of Conduct Policy, ensuring quality service adherence to the highest standards.

### Supplier Management

Sustainable development management within the supply chain receives significant attention from the Group. A task force is responsible for supply chain management, with duties including the formulation of ESG management strategies for the supply chain while ensuring proper oversight of related programme implementation.

### Supplier Screening

Stringent supplier admission and evaluation processes are grounded in the Blue Book: Procurement Manual for Group Affiliates and the Manual on Joint Procurement Management as foundational guidelines. Suppliers are also encouraged to attain ISO 9001 (Quality Management Systems), ISO 14001 (Environmental Management Systems), and ISO 45001 (Occupational Health and Safety Management Systems) certifications.

During the supplier selection process, we incorporated key performance indicators related to ESG to quantitatively assess the sustainability performance of suppliers. Additional requirements from the parent company, HKCG, as specified in the Sustainable Purchasing Policy and the Code of Practice for Suppliers must also be met, encompassing employee rights protection, corporate social responsibility fulfilment, active community service, and dedicated environmental protection and resource conservation efforts. Specific measures include:



Prioritisation of suppliers with environmental certifications



Avoidance of excessive packaging and reduction of non-biodegradable materials



Prioritisation of sustainable materials



Promotion of clean production adoption by suppliers to minimise waste generation

### Group Supply Management Workshop 2024



The Group organised a supply management workshop in Suzhou in June 2024, focusing on improving professional procurement skills and professionalism. To align with these objectives, case analyses were provided at the workshop to strengthen the professional capabilities of procurement personnel in supplier evaluation and selection processes.

The course content included product price comparison and assessment, supplier evaluation criteria, and procurement policy, ensuring regulatory compliance and rationality in procurement decisions while establishing fair and impartial supplier selection systems.



**115** participants from the city-gas business

### Supplier Monitoring

In accordance with the Manual on Joint Procurement Management, we established a comprehensive supplier evaluation system for existing suppliers through a combination of regular online self-inspections and on-site examinations:

- **Quality and Operation:** Evaluate suppliers’ product quality and 6S<sup>16</sup> management to ensure their production operations meet the Group’s standards;
- **Corporate Social Responsibility:** Evaluations focus on five major areas, including business ethics, employee relations, market activities, community engagement, and environmental protection;
- **Sustainable Development:** Incorporate ESG performance into the evaluation system, comprehensively consider management standards and development potential across environmental, social and governance aspects.

<sup>16</sup> Sort (Seiri), Set in order (Seiton), Shine (Seiso), Standardise (Seiketsu), Sustain (Shitsuke), and Safety.

## Effective Collaboration – Upgrading the Value Chain

Supplier Inspection Reports will be issued upon the completion of assessments, with written feedback and recommendations provided to suppliers. Suppliers are required to submit initial written responses and detailed improvement plans. The relevant product managers will then track improvement progress and evaluate their effectiveness. Assessment results will lead to various incentive and disciplinary measures:

- Preferential collaboration with environmentally certified suppliers (e.g. ISO 14000) under equal quality conditions;
- For suppliers whose inspection results are unsatisfactory, their supply qualifications will be suspended upon approval by the Quality Committee;
- Temporary control measures, such as suspending supplier shipments, halting order reception, and quarantining inventory, may be implemented with the approval of the department head in cases of material non-compliance.



**100%**<sup>5</sup> of new suppliers were screened using ESG criteria

### Supplier Training

Towngas Smart Energy exemplifies corporate citizenship by actively advocating for green transition and sustainable development across its supply chain. This year, the Group organised an ESG-themed training series featuring industry experts and exploring vital topics such as “dual carbon” goals, policy interpretations, and green supply chain management practices. These training sessions aim to equip suppliers with timely insights into sustainability trends, enhance ESG risk management capabilities, and facilitate a seamless green transition.

To effectively manage carbon emissions in the supply chain, we have partnered with SGS Hong Kong Limited to utilise the S-Carbon platform for tracking GHG emissions data. This initiative not only enhances the accuracy of GHG emission (Scope 3) data but also strengthens suppliers’ understanding of climate change and their awareness of emission reduction, driving the entire industry chain towards sustainable development goals.



Over **90%**<sup>6</sup> of critical tier 1 suppliers have used the S-Carbon

<sup>5</sup> Refers to Towngas Smart Energy and its parent company, HKCG, city-gas business.  
<sup>6</sup> Based on the total procurement value of products and materials (refers to city-gas business only).

## Supplier Climate Change Risk Training and Carbon Verification Conference

As the impact of global climate change becomes increasingly pronounced, the Group is committed to building a more sustainable and climate-resilient supply chain. We regularly provide specialised training for suppliers on climate change risk assessment to deepen their understanding of the risks and opportunities associated with the transformation of their supply chains under climate change.

During the year, we organised relevant training sessions where suppliers were engaged in small group discussions to explore the risks arising from structural transformation in the emission reduction process across four areas, namely policy and law, market, technology, and reputation. The risks and opportunities presented by climate change are as follows.



### Risks

Supply Chain Disruption, Customer Loss, Decline in Demand for High-Carbon Products/Replacement, Cost Increases



### Opportunities

Energy Transition, New Market Development, Product Upgrading, Green Finance/Carbon Trading

The analysis showed that the climate change transformation risks faced by the Group’s supply chain are generally consistent with those faced by the suppliers themselves. Through the training, suppliers are able to gain a deeper understanding of these risks and opportunities, allowing them to formulate mitigation plans and response strategies to minimise financial impacts and assist in the gradual transformation of the supply chain.

Additionally, we hosted the “Supplier Climate Change Risk Training and Carbon Verification Conference”, emphasising the strategic importance of ESG for our business development. During this event, we shared our ESG strategies, sustainability goals, and measures for addressing climate change. Experts were invited to analyse domestic and international low-carbon policy trends and business opportunities.

Going forward, the Group will continue to collaborate with suppliers to contribute to the industry’s green transformation and promote sustainable development.

## Effective Collaboration – Upgrading the Value Chain

### Customer Service Management

High-quality customer service forms the cornerstone of sustainable business development. We are constantly improving our service management system, strengthening gas safety assurance, actively listening to customers needs, and providing outstanding service experiences.

### Customer Complaint Management

Towngas Smart Energy's customer service management adheres to relevant laws and regulations, including the Law of the People's Republic of China on the Protection of Consumers' Rights and Interests, while simultaneously implementing the parent company HKCG's Customer Services Code of Conduct Policy. The comprehensive service standards system, covering service etiquette, response timeframes, and complaint handling, ensures consistency and excellence in customer interactions. To enhance service quality, the Group published the Customer Service Complaint Management Guidelines and the Towngas China Hotline General Knowledge Database in 2024. These initiatives standardised complaint handling processes and significantly improved the efficiency in addressing customer enquiries and resolving complaints.

#### Practical Customer Complaint Handling Training Activity

External experts provided valuable insights into complaint handling knowledge, consumer behaviour insights, processing procedures, and communication techniques during the "Practical Customer Complaint Handling" training activity organised by the Group this year. The activity also included group discussions and case analyses, enhancing participants' ability to apply theoretical concepts to real-world scenarios.



Close to **90** participants attended the training

### Customer Gas Usage Safety

This year, the Group's city-gas business updated both the Guidelines for the Management of Indoor Potential Hazards and Risk Items in Commercial and Industrial Enterprises and the Guidelines for the Management of Indoor Potential Hazards and Risk Items in Residential Households. Through precise identification and control of indoor gas hazards, we offer professional guidance and support to customers, ensuring a standardised and efficient service process.

In 2024, the assessment system was optimised and upgraded, with the original "Enterprise Customer Safety Operation Assessment" upgraded to the "Customer Safety Operations and Service Quality Management Assessment". Based on the assessment results, targeted safety improvement plans were developed for each project company. The ongoing monitoring of various safety indicators ensured a continuous improvement in customers' gas usage experience and operational efficiency.



**96%**<sup>5</sup>  
Customer satisfaction rate

This year, the Group assessed 62 project companies and conducted regular inspections to promptly identify and resolve potential hazards, effectively ensuring the quality and satisfaction of customer services.



<sup>5</sup> Refers to Towngas Smart Energy and its parent company, HKCG, city-gas business.



Effective Collaboration – Upgrading the Value Chain

Case Study

Empowering Zero-Carbon Smart Industrial Parks for Green Transition

Advancing the green and low-carbon transition is essential for bolstering the resilience and competitiveness of the value chain. Towngas Smart Energy spearheads innovation across energy management, resource recycling, and smart operations, facilitating the green transition for enterprises both upstream and downstream while creating a green and low-carbon ecosystem.



Chilled Water Storage System

This system stores cooling energy in chilled water tanks using refrigeration units and releases it as needed, meeting cooling demands in various scenarios, such as air-conditioning systems in buildings.

Virtual Power Plant

It integrates decentralised distributed energy resources into a system resembling a physical power plant, improving energy efficiency and reducing operational costs.

Waste Heat Recovery Systems for Air Compressors

This system recovers waste heat generated during air compressor operation and repurposes it as heat or electrical energy, improving energy efficiency and reducing operational costs.

Distributed Photovoltaic Power Generation System

This system converts solar energy into electricity using photovoltaic components, adopting a distributed layout to enable clean energy utilisation through self-consumption, with surplus power being fed into the grid.

Energy Management Platform

By monitoring, analysing, and dispatching energy systems in real time, the platform provides accurate insights into energy usage, identifies energy-saving potential, and enhances energy efficiency.

Energy Storage System

Energy is converted into storable forms to balance supply and demand, optimise energy efficiency, and enhance the stability of power systems.

Whole-Scene Zero-Carbon Energy-Saving Retrofit Project for District Party Committee Compound:

Building on the foundation of assisting the Futian District Party Committee in completing the integrated “photovoltaic-energy storage-charging-smart-flexible” parking lot demonstration station project and virtual power plant construction, the Group has adopted measures such as green finance, carbon inventory, verification, and offsetting, and resource recycling. These efforts deeply empower the Futian District Party Committee Compound’s “full-chain” and “all-scenario” carbon reduction blueprint, creating a zero-carbon canteen and a zero-carbon vehicle fleet for the compound. This closed-loop solution, integrating new energy investment with carbon and electricity services, has received high praise from the Guangdong Provincial Administration of Government Affairs.



Virtual Power Plant Project Successfully Launched in Shanghai:

The Group successfully commissioned a virtual power plant project in Shanghai, marking a significant milestone in its national deployment following Shenzhen. The project has secured agreements with multiple commercial office buildings and effectively regulated over 1,600 kWh of electricity.



Guangzhou IPE Group's Project Officially Launched:

The Guangzhou IPE Group's project, constructed and operated by Towngas Energy Investment Limited (Towngas Energy), a subsidiary of Towngas Smart Energy, was officially connected to the grid this year. This project integrates multiple fields, including photovoltaics, energy storage, electricity sales, charging stations, energy-saving solutions, and managed operations and maintenance. Through the Tera Planet platform developed by Towngas Energy, we have achieved data aggregation and intelligent operations. The project is expected to reduce carbon dioxide emissions by approximately 6,000 tonnes annually.



# Appendix I: Key Statistics

This section presents an overview of the 2024 key performance indicators (KPIs) of the Group, with a focus on economic, employee, environmental, safety and social aspects. The scope of disclosures covers Towngas Smart Energy and its subsidiaries, unless stated otherwise.

- \* To align data disclosure with the parent company, Towngas Smart Energy has adopted the following revisions starting from 2024:

  - Provided additional disclosures, such as gender diversity ratio and pay ratio, to enhance transparency and align with international best reporting practices.
  - Aligned terminologies and/or definitions, such as high-consequence work-related injuries and critical tier 1 suppliers, to improve consistency and clarity.
  - Revised methodologies for selected KPIs, including voluntary turnover rate and new recruitment rate.

For figures prior to 2024, please refer to previous ESG reports for details.

To enhance transparency and comprehensiveness, the codes **(G, RB, GR)** denotes reporting scopes of Towngas Smart Energy and its parent company, HKCG: **G** for City-Gas Business, **RB** for Renewable Energy Business, and **GR** for Gas Resources Business.

## Economic Aspect

The scope of disclosures aligns with Towngas Smart Energy financial reporting. More information is available in our [Annual Report 2024](#).

|                                     | Unit                 | 2024   | 2023   | 2022   |
|-------------------------------------|----------------------|--------|--------|--------|
| Operation                           |                      |        |        |        |
| Gas sales                           | Million cubic metres | 17,201 | 16,458 | 15,246 |
| Financial                           |                      |        |        |        |
| Revenue                             | HK\$ million         | 21,314 | 19,842 | 20,073 |
| Profit attributable to shareholders | HK\$ million         | 1,606  | 1,575  | 965    |
| Earnings per share                  | HK cents             | 47.10  | 47.74  | 30.17  |

## Social Aspect

### Employees <sup>1)</sup>

|                      | Unit          | 2024*            | 2023             | 2022            |
|----------------------|---------------|------------------|------------------|-----------------|
| Employee Profile     |               |                  |                  |                 |
| Full-time            | Number<br>(%) | 10,958<br>(99.9) | 10,800<br>(99.9) | 23,663<br>(100) |
| Part-time            | Number<br>(%) | 6<br>(0.1)       | –<br>(0.1)       | –<br>(0)        |
| Permanent            | Number        | 10,958           | –                | –               |
| Contract             | Number        | 0                | –                | –               |
| By gender            |               |                  |                  |                 |
| Male                 | Number<br>(%) | 7,452<br>(68.0)  | –<br>(68)        | –<br>(68)       |
| Female               | Number<br>(%) | 3,506<br>(32.0)  | –<br>(32)        | –<br>(32)       |
| By age group         |               |                  |                  |                 |
| ≤35                  | Number<br>(%) | 4,251<br>(38.8)  | –<br>(43)        | –<br>(41)       |
| 36-55                | Number<br>(%) | 6,143<br>(56.1)  | –<br>(53)        | –<br>(54)       |
| ≥56                  | Number<br>(%) | 564<br>(5.1)     | –<br>(4)         | –<br>(5)        |
| By employee category |               |                  |                  |                 |
| Managerial employee  | Number<br>(%) | 445<br>(4.0)     | –<br>(4)         | –<br>(3)        |
| Supervisory employee | Number<br>(%) | 2,211<br>(20.2)  | –<br>(15)        | –<br>(12)       |
| General employee     | Number<br>(%) | 8,302<br>(75.8)  | –<br>(81)        | –<br>(85)       |

Note:

<sup>1)</sup> In 2023, to improve the quality of data disclosure, Towngas Smart Energy has further aligned the reporting scope to cover Towngas Smart Energy and its subsidiaries, unless stated otherwise.

Appendix I: Key Statistics

|                                      | Unit   | 2024*  | 2023  | 2022  |
|--------------------------------------|--------|--------|-------|-------|
| By region                            |        |        |       |       |
| Group Head Office                    | Number | 742    | –     | –     |
|                                      | (%)    | (6.8)  | (4)   | (1)   |
| Northeast China Office               | Number | 3,716  | –     | –     |
|                                      | (%)    | (33.9) | (38)  | (27)  |
| North China Office                   | Number | 1,224  | –     | –     |
|                                      | (%)    | (11.2) | (10)  | (16)  |
| Central China Office                 | Number | 792    | –     | –     |
|                                      | (%)    | (7.2)  | (8)   | (7)   |
| East China Office                    | Number | 937    | –     | –     |
|                                      | (%)    | (8.5)  | (9)   | (20)  |
| West China Office                    | Number | 2,439  | –     | –     |
|                                      | (%)    | (22.3) | (21)  | (16)  |
| South China Office                   | Number | 1,108  | –     | –     |
|                                      | (%)    | (10.1) | (10)  | (13)  |
| Voluntary Turnover (number and rate) |        |        |       |       |
| Total                                | Number | 434    | –     | –     |
|                                      | (%)    | (4.0)  | (3.7) | (2.8) |
| By gender                            |        |        |       |       |
| Male                                 | Number | 323    | –     | –     |
|                                      | (%)    | (4.3)  |       |       |
| Female                               | Number | 111    | –     | –     |
|                                      | (%)    | (3.2)  |       |       |
| By age group                         |        |        |       |       |
| ≤35                                  | Number | 271    | –     | –     |
|                                      | (%)    | (6.4)  |       |       |
| 36-55                                | Number | 153    | –     | –     |
|                                      | (%)    | (2.5)  |       |       |
| ≥56                                  | Number | 10     | –     | –     |
|                                      | (%)    | (1.8)  |       |       |

|                                   | Unit   | 2024*  | 2023 | 2022  |
|-----------------------------------|--------|--------|------|-------|
| By region                         |        |        |      |       |
| Group Head Office                 | Number | 54     | –    | –     |
|                                   | (%)    | (7.3)  |      |       |
| Northeast China Office            | Number | 65     | –    | –     |
|                                   | (%)    | (1.7)  |      |       |
| North China Office                | Number | 73     | –    | –     |
|                                   | (%)    | (6.0)  |      |       |
| Central China Office              | Number | 32     | –    | –     |
|                                   | (%)    | (4.0)  |      |       |
| East China Office                 | Number | 91     | –    | –     |
|                                   | (%)    | (9.7)  |      |       |
| West China Office                 | Number | 34     | –    | –     |
|                                   | (%)    | (1.4)  |      |       |
| South China Office                | Number | 85     | –    | –     |
|                                   | (%)    | (7.7)  |      |       |
| New Recruitment (number and rate) |        |        |      |       |
| Total                             | Number | 743    | 912  | 1,457 |
|                                   | (%)    | (6.8)  |      |       |
| By gender                         |        |        |      |       |
| Male                              | Number | 474    | –    | –     |
|                                   | (%)    | (6.4)  |      |       |
| Female                            | Number | 269    | –    | –     |
|                                   | (%)    | (7.7)  |      |       |
| By age group                      |        |        |      |       |
| ≤35                               | Number | 562    | –    | –     |
|                                   | (%)    | (13.2) |      |       |
| 36-55                             | Number | 180    | –    | –     |
|                                   | (%)    | (2.9)  |      |       |
| ≥56                               | Number | 1      | –    | –     |
|                                   | (%)    | (0.2)  |      |       |



Appendix I: Key Statistics

|  | Unit   | 2024*   | 2023   | 2022   |
|--|--------|---------|--------|--------|
| By region  |        |         |        |        |
| Group Head Office  | Number | 190     | –      | –      |
|  | (%)    | (25.6)  |        |        |
| Northeast China Office   | Number | 90      | –      | –      |
|  | (%)    | (2.4)   |        |        |
| North China Office   | Number | 106     | –      | –      |
|  | (%)    | (8.7)   |        |        |
| Central China Office   | Number | 48      | –      | –      |
|  | (%)    | (6.1)   |        |        |
| East China Office  | Number | 113     | –      | –      |
|  | (%)    | (12.1)  |        |        |
| West China Office  | Number | 67      | –      | –      |
|  | (%)    | (2.7)   |        |        |
| South China Office   | Number | 129     | –      | –      |
|  | (%)    | (11.6)  |        |        |
| Employees Received Performance and Career Reviews                                    |        |         |        |        |
| Total percentage   | %      | 98.5    | 100    | 100    |
| By gender  |        |         |        |        |
| Male   | %      | 98.8    | –      | –      |
| Female   | %      | 98.0    | –      | –      |
| By employee category   |        |         |        |        |
| Managerial employee  | %      | 98.9    | –      | –      |
| Supervisory employee   | %      | 98.4    | –      | –      |
| General employee   | %      | 98.6    | –      | –      |
| Training   |        |         |        |        |
| Total  | Hours  | 682,445 | –      | –      |
| Average (per employee)   | Hours  | 62.3    | 93.0   | 59.3   |
| Average training spend (per employee)  | HK\$   | 1,167   | 1,009  | –      |
| Time spent on Anti-corruption training   | Hours  | 19,025  | 24,585 | 11,526 |
| Percentage of employees who received anti-corruption training                        | %      | 86.0    | 100    | 100    |
| By gender (average training hours and percentage of employees who received training) |        |         |        |        |
| Male   | Hours  | 65.5    | 90.8   | –      |
|  | (%)    | (90.9)  | (95.1) | (92.8) |
| Female   | Hours  | 55.5    | 97.9   | –      |
|  | (%)    | (90.1)  | (91.7) | (90.6) |

|   | Unit   | 2024*  | 2023   | 2022   |
|---|--------|--------|--------|--------|
| By employee category (average training hours and percentage of employees who received training) |        |        |        |        |
| Managerial employee   | Hours  | 31.4   | 64.8   | –      |
|   | (%)    | (69.0) | (94.4) | (93.9) |
| Supervisory employee  | Hours  | 51.3   | 92.3   | –      |
|   | (%)    | (62.1) | (86.7) | (94.8) |
| General employee  | Hours  | 66.9   | 94.5   | –      |
|   | (%)    | (98.6) | (95.3) | (91.7) |
| Diversity Ratio (male to female)  |        |        |        |        |
| By employee category  |        |        |        |        |
| Managerial employee   | Ratio  | 4.6:1  | –      | –      |
| Supervisory employee  | Ratio  | 2.4:1  | –      | –      |
| General employee  | Ratio  | 2.0:1  | –      | –      |
| Gender Pay Ratio (male to female)   |        |        |        |        |
| By employee category – Base salary  |        |        |        |        |
| Managerial employee   | Ratio  | 1.1:1  | 1.1:1  | –      |
| Supervisory employee  | Ratio  | 0.9:1  | 1.0:1  | –      |
| General employee  | Ratio  | 1.0:1  | 1.0:1  | –      |
| Parental Leave  |        |        |        |        |
| Number of employees that were entitled to parental leave  |        |        |        |        |
| Male  | Number | 120    | –      | –      |
| Female  | Number | 97     | –      | –      |
| Number of employees who took parental leave   |        |        |        |        |
| Male  | Number | 120    | –      | –      |
| Female  | Number | 97     | –      | –      |
| Number of employees who returned to work in the reporting year after parental leave ended       |        |        |        |        |
| Male  | Number | 120    | –      | –      |
| Female  | Number | 94     | –      | –      |
| Return to work rate   |        |        |        |        |
| Male  | %      | 100    | –      | –      |
| Female  | %      | 96.9   | –      | –      |
| Legal Rights  |        |        |        |        |
| Coverage of labour contract   | %      | 100    | 100    | 100    |
| Coverage of social insurance  | %      | 100    | 100    | 100    |

Appendix I: Key Statistics

Safety

|   | Unit                                 | 2024*       | 2023        | 2022        |
|---|--------------------------------------|-------------|-------------|-------------|
| Employees   |                                      |             |             |             |
| Recordable work-related injuries                      | Number<br>(per 1,000,000 work-hours) | 4<br>(0.18) | 1<br>(0.05) | 3<br>(0.11) |
| Lost days due to work injuries                        | Number of work-days                  | 258         | 5           | 147         |
| High-consequence work-related injuries                | Number<br>(per 1,000,000 work-hours) | 0<br>(0)    | 0<br>(0)    | 0<br>(0)    |
| Recordable work-related ill health                    | Number<br>(per 1,000,000 work-hours) | 0<br>(0)    | 0<br>(0)    | –           |
| Fatalities <sup>1)</sup>                              | Number<br>(per 1,000,000 work-hours) | 0<br>(0)    | 0<br>(0)    | 0<br>(0)    |
| Contractors   |                                      |             |             |             |
| Recordable work-related injuries <sup>G, RB, GR</sup> | Number<br>(per 1,000,000 work-hours) | 1<br>(0.06) | 0           | 1           |
| Lost days due to work injuries                        | Number of work-days                  | 120         | 0           | –           |
| High-consequence work-related injuries                | Number<br>(per 1,000,000 work-hours) | 0<br>(0)    | –           | –           |
| Recordable work-related ill health                    | Number<br>(per 1,000,000 work-hours) | 0<br>(0)    | –           | –           |
| Fatalities <sup>1)</sup>                              | Number<br>(per 1,000,000 work-hours) | 0<br>(0)    | 0           | 1           |

Note:

<sup>1)</sup> Refers to the number of fatalities as a result of work-related injury.

Value Chain

|  | Unit   | 2024* | 2023 | 2022 |
|--|--------|-------|------|------|
| Customers <sup>1)</sup>  |        |       |      |      |
| Products sold or shipped subject to recalls for safety and health reasons      | %      | 0     | 0    | 0    |
| Product- and service-related complaints received                               | Number | 186   | 109  | –    |
| Suppliers <sup>G, RB</sup>   |        |       |      |      |
| Critical tier 1 suppliers  | Number | 64    | 144  | 121  |
| Suppliers’ profile by geographical location (Chinese mainland)                 | %      | 100   | 100  | 97   |
| Suppliers’ profile by geographical location (Others)                           | %      | 0     | 0    | 3    |
| Payment to suppliers by geographical location (Chinese mainland) <sup>2)</sup> | %      | 100   | 100  | 98   |
| Payment to suppliers by geographical location (Others) <sup>2)</sup>           | %      | 0     | 0    | 2    |

Note:

<sup>1)</sup> Reporting scope includes Towngas Smart Energy and its parent company, HKCG, gas-related business.

<sup>2)</sup> Based on the total purchase value of products and materials.

Community

|  | Unit         | 2024    | 2023    | 2022    |
|--|--------------|---------|---------|---------|
| Charity investment <sup>1)</sup>                 | HK\$ million | 5.8     | 6.1     | 7.0     |
| Employees participating in volunteering services | Number       | 7,191   | 5,207   | 8,038   |
| Volunteer service hours                          | Hours        | 162,109 | 106,077 | 415,441 |
| Beneficiaries                                    | Number       | 54,687  | 120,823 | 178,535 |

Note:

<sup>1)</sup> Reporting scope includes Towngas Smart Energy and its parent company, HKCG, mainland utilities.

Appendix I: Key Statistics

Environmental Aspect

Greenhouse Gas (GHG) Emissions

|  | Unit   | 2024       | 2023    | 2022   |
|--|--|------------|---------|--------|
| Scope 1 & Scope 2 (Location-based) <sup>1)</sup> |  |            |         |        |
| City-gas business                                | Tonnes CO <sub>2</sub> e   | 30,984     | 41,802  | 43,435 |
| Renewable energy business                        | Tonnes CO <sub>2</sub> e   | 35,389     | 62,538  | 39,821 |
| Gas resources business                           | Tonnes CO <sub>2</sub> e   | 10,646     | –       | –      |
| Total emissions                                  | Tonnes CO <sub>2</sub> e   | 77,019     | 104,340 | 83,256 |
| Scope 1 & Scope 2 (Market-based) <sup>1)</sup>   |  |            |         |        |
| City-gas business                                | Tonnes CO <sub>2</sub> e   | 30,984     | 41,802  | 43,435 |
| Renewable energy business                        | Tonnes CO <sub>2</sub> e   | 35,389     | 62,538  | 39,821 |
| Gas resources business                           | Tonnes CO <sub>2</sub> e   | 10,646     | –       | –      |
| Total emissions                                  | Tonnes CO <sub>2</sub> e   | 77,019     | 104,340 | 83,256 |
| GHG Emissions Intensity                          |  |            |         |        |
| City-gas business                                | Tonnes CO <sub>2</sub> e per million m <sup>3</sup> of gas sales | 6.1        | 8.8     | 9.8    |
| Scope 3  |  |            |         |        |
| Category 1: Purchased goods and services         | Tonnes CO <sub>2</sub> e   | 1,454,000  | –       | –      |
| Category 2: Capital goods                        | Tonnes CO <sub>2</sub> e   | 150,000    | –       | –      |
| Category 3: Fuel-and-energy related activities   | Tonnes CO <sub>2</sub> e   | 18,000     | –       | –      |
| Category 11: Use of sold products                | Tonnes CO <sub>2</sub> e   | 10,014,000 | –       | –      |
| Other Categories <sup>2)</sup>                   | Tonnes CO <sub>2</sub> e   | 49,000     | –       | –      |
| Total emissions                                  | Tonnes CO <sub>2</sub> e   | 11,685,000 | –       | –      |

Note:

<sup>1)</sup> Data are consolidated on a control basis described in the Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (2004).

GHG inventory covers seven types of GHGs specified in the Kyoto Protocol. The global warming potential were from the Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Report (2023).

The emission factors used to calculate GHG emissions from electricity consumption are obtained from the Ministry of Ecology and Environment and the National Bureau of Statistics of the People’s Republic of China, utilising the most up-to-date data and information available during the reporting year. Other emission factors were obtained from local governments and authorities in their respective jurisdictions. In situations where local emissions factors were not available, other recognised sources were referenced.

Ozone-depleting substances were taken into consideration and their amount was found to be negligible. Hence, separate disclosure is not presented in the report.

<sup>2)</sup> Other categories included Category 5: Waste generated in operations, Category 6: Business travel and Category 7: Employee commuting.

Resources Use

|   | Unit           | 2024      | 2023      | 2022      |
|---|----------------|-----------|-----------|-----------|
| Energy Consumption                                    |                |           |           |           |
| Natural gas   | GJ             | 753,200   | 1,214,160 | 814,370   |
| Unleaded petrol                                       | GJ             | 57,340    | 57,859    | 61,308    |
| Diesel  | GJ             | 7,916     | 8,871     | 8,916     |
| LPG   | GJ             | 15        | 41        | 42        |
| Electricity   | GJ             | 364,529   | 167,021   | 159,169   |
| Total energy consumption                              | GJ             | 1,183,000 | 1,447,951 | 1,043,805 |
| Water Withdrawal                                      |                |           |           |           |
| Water withdrawal – from municipal water supplies      | m <sup>3</sup> | 867,873   | 698,290   | 495,798   |
| Waste Management <sup>1)</sup>                        |                |           |           |           |
| Hazardous waste <sup>2)</sup>                         | Tonnes         | 25        | 28        | 24        |
| Non-hazardous waste                                   | Tonnes         | 69,657    | 75,095    | 80,401    |
| Air Emissions <sup>3)</sup>                           |                |           |           |           |
| Nitrogen oxides (NO <sub>x</sub> )                    | Tonnes         | 51.5      | 68        | 51        |
| Sulphur oxides (SO <sub>x</sub> )                     | Tonnes         | 0.9       | 1.3       | 0.9       |
| Respirable suspended particulates (PM <sub>10</sub> ) | Tonnes         | 1.0       | 1.1       | 1.2       |
| Packaging Material Use <sup>4)</sup>                  |                |           |           |           |
| Total packaging                                       | Tonnes         | 1,186     | –         | –         |
| Weight intensity                                      | Kg/piece       | 1.8       | –         | –         |

Note:

<sup>1)</sup> Solid and liquid waste have been combined in calculations. The historical numbers are restated to align the calculation methodology across years.

<sup>2)</sup> All hazardous waste handling procedures complied with national regulations.

<sup>3)</sup> From fuel combustion and vehicle emissions.

<sup>4)</sup> Reporting scope includes Towngas Smart Energy and its parent company, HKCG, gas-related business.



Appendix I: Key Statistics

Scope 3 Emissions Reporting Methodology

The total Scope 3 GHG emissions in 2024 were 11,685,000 tCO<sub>2</sub>e, with the most significant source coming from Category 11 – use of sold products, as categorised by the Greenhouse Gas Protocol. These emissions account for over 80% of our value chain emissions. The table below outlines the calculation methodologies for Scope 3.

| Category                                    | Methodology & Activity Data  | Emission Factor  |
|---|--|--|
| 1. Purchased goods and services             | <b>Average-data (product related)</b><br>Quantities of purchased fuel and water from internal system.<br><br><b>Spend-based (non-product related)</b><br>Annual spend data from internal system. | <ul style="list-style-type: none"><li>Australian Government “National Greenhouse Accounts Factors 2024”</li><li>Hong Kong Water Supplies Department Annual Report 2022-2023</li><li>US Environmental Protection Agency Supply Chain Greenhouse Gas Emission Factors v1.3</li></ul> |
| 2. Capital goods                            | <b>Spend-based</b><br>Annual spend data from internal system.  | <ul style="list-style-type: none"><li>US Environmental Protection Agency Supply Chain Greenhouse Gas Emission Factors v1.3</li></ul>   |
| 3. Fuel- and energy-related activities      | <b>Average-data</b><br>Quantities of consumed fuels and electricity consumed in production process from the internal system.   | <ul style="list-style-type: none"><li>Australian Government “National Greenhouse Accounts Factors 2024”</li></ul>  |
| 4. Upstream transportation and distribution | Exclusion – Emissions are included in Category 1.  |  |
| 5. Waste generated in operations            | <b>Waste-type-specific</b><br>Quantities of waste generated during operation by type from internal system.   | <ul style="list-style-type: none"><li>US Environmental Protection Agency “2025 GHG Emission Factors Hub”</li><li>Hong Kong Drainage Services Department Sustainability Report 2022-2023</li></ul>  |

| Category                                      | Methodology & Activity Data   | Emission Factor  |
|---|---|--|
| 6. Business travel                            | <b>Distance-based</b><br>Air travel data collected from corporate travel service providers.                                       | <ul style="list-style-type: none"><li>US Environmental Protection Agency “2025 GHG Emission Factors Hub”</li></ul> |
| 7. Employee commuting                         | <b>Distance-based</b><br>Number of employees from internal system with estimated travel mode and average distance travelled, etc. | <ul style="list-style-type: none"><li>City University of Hong Kong “Carbon Audit Guidelines”</li></ul>             |
| 8. Upstream leased assets                     | Exclusion – Emissions of leased offices are included in Scope 2 emissions. No other operation of leased assets.                   |  |
| 9. Downstream transportation and distribution | Exclusion – Major products do not involve vehicles or facilities not owned or controlled by the Group.                            |  |
| 10. Processing of sold products               | Exclusion – Major products are end products which processing is not required.   |  |
| 11. Use of sold products                      | <b>Average-data</b><br>Quantities and types of products sold from internal system.  | <ul style="list-style-type: none"><li>2006 IPCC Guidelines for National Greenhouse Gas Inventories</li></ul>       |
| 12. End-of-life treatment of sold products    | Exclusion – Major products do not require end-of life treatment.  |  |
| 13. Downstream leased assets                  | Exclusion – Leasing business is minimal/negligible.   |  |
| 14. Franchises                                | Exclusion – Franchise business is minimal/negligible.   |  |
| 15. Investments                               | Exclusion – Data not available.   |  |

# Appendix II: Indices for the Report

## Hong Kong Stock Exchange ESG Reporting Guide Content Index

The Environmental, Social and Governance (ESG) Report 2024 complies with the mandatory disclosure requirements and the “comply or explain” provisions outlined in the Environmental, Social, and Governance Reporting Guide of The Stock Exchange of Hong Kong Limited. Please refer to the table below for detailed information, as well as additional resources available the websites of [Towngas Smart Energy](#) and [its parent company, HKCG](#), [the Annual Report 2024](#), the Environmental, Social and Governance (ESG) Report 2024, and the [Climate-Related and Nature-Related Directive Guide](#).

| Mandatory Disclosure Requirements          | Location in the ESG Report 2024   | Other References  |
|--|---|---|
| <b>Governance Structure</b>                | A statement from the board containing the following elements:<br><br>(i) a disclosure of the board's oversight of ESG issues;<br><br>(ii) the board's ESG management approach and strategy, including the process used to evaluate, prioritise and manage material ESG-related issues (including risks to the issuer's businesses); and<br><br>(iii) how the board reviews progress made against ESG-related goals and targets with an explanation of how they relate to the issuer's businesses. | P. 3 Board Statement<br><br>P. 20-21 ESG Governance<br><br><a href="#">ESG Committee</a>  |
| <b>Reporting Principles – Materiality</b>  | The ESG Report should disclose:<br><br>(i) The process to identify and the criteria for the selection of material ESG factors;<br><br>(ii) if a stakeholder engagement is conducted, a description of significant stakeholders identified, and the process and results of the issuer's stakeholder engagement.  | P. 35 Stakeholder Engagement<br><br>P. 36-41 Double Materiality Assessment (DMA)<br><br>– |
| <b>Reporting Principles – Quantitative</b> | Information on the standards, methodologies, assumptions and/or calculation tools used, and source of conversion factors used, for the reporting of emissions/energy consumption (where applicable) should be disclosed.  | P. 102-113 Key Statistics<br><br>–  |
| <b>Reporting Principles – Consistency</b>  | The issuer should disclose in the ESG report any changes to the methods or KPIs used, or any other relevant factors affecting a meaningful comparison.  | P. 102-113 Key Statistics<br><br>–  |
| <b>Reporting Boundary</b>                  | A narrative explaining the reporting boundaries of the ESG report and describing the process used to identify which entities or operations are included in the ESG report. If there is a change in the scope, the issuer should explain the difference and reason for the change.   | P. 2 Reporting Scope and Boundary<br><br>–  |

| Subject Areas, Aspects, General Disclosures and KPIs | Location in the ESG Report 2024  | Other References  |
|--|--|---|
| <b>A. Environmental</b>                              |  |   |
| <b>A1: Emissions</b>                                 |  |   |
| <b>General Disclosure</b>                            | Information on:<br><br>(a) the policies; and<br><br>(b) compliance with relevant laws and regulations that have a significant impact on the issuer<br><br>relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste. | P. 66 Environmental Management Policies<br><br>P. 67 Climate Governance<br><br><a href="#">ESG at a Glance</a><br><a href="#">Climate Change Policy</a><br><a href="#">Environmental Policy</a> |
| <b>KPI A1.1</b>                                      | The types of emissions and respective emissions data.  | P. 111 Key Statistics<br>–  |
| <b>KPI A1.2</b>                                      | Direct (Scope 1) and energy indirect (Scope 2) greenhouse gas emissions (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).  | P. 73 Climate Governance<br>P.110 Key Statistics<br>–   |
| <b>KPI A1.3</b>                                      | Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).   | P.111 Key Statistics<br>–   |
| <b>KPI A1.4</b>                                      | Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).   | P.111 Key Statistics<br>–   |
| <b>KPI A1.5</b>                                      | Description of emission target(s) set and steps taken to achieve them.   | P. 65, 73-83 Towards Carbon Neutral – Initiating the New Green Era<br>–   |
| <b>KPI A1.6</b>                                      | Description of how hazardous and non-hazardous wastes are handled, and a description of reduction target(s) set and steps taken to achieve them.   | P. 85-86 Natural Resources Management<br><a href="#">ESG at a Glance</a>  |
| <b>A2: Use of Resources</b>                          |  |   |
| <b>General Disclosure</b>                            | Policies on the efficient use of resources, including energy, water and other raw materials.   | P. 66 Environmental Management Policies<br><br><a href="#">Environmental Policy</a><br><a href="#">ESG at a Glance</a>  |
| <b>KPI A2.1</b>                                      | Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in '000s) and intensity (e.g. per unit of production volume, per facility).   | P. 111 Key Statistics<br>–  |
| <b>KPI A2.2</b>                                      | Water consumption in total and intensity (e.g. per unit of production volume, per facility).   | P. 111 Key Statistics<br>–  |
| <b>KPI A2.3</b>                                      | Description of energy use efficiency target(s) set and steps taken to achieve them.  | P. 83 Natural Resources Management<br>–   |
| <b>KPI A2.4</b>                                      | Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency target(s) set and steps taken to achieve them.   | P. 84 Natural Resources Management<br>–   |
| <b>KPI A2.5</b>                                      | Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced.   | P. 111 Key Statistics<br>–  |

Appendix II: Indices for the Report

Hong Kong Stock Exchange ESG Reporting Guide Content Index

| Subject Areas, Aspects, General Disclosures and KPIs |  | Location in the ESG Report 2024  | Other References  |
|--|--|--|---|
| A3: The Environment and Natural Resources            |  |  |   |
| General Disclosure                                   | Policies on minimising the issuer's significant impacts on the environment and natural resources.  | P. 66 Environmental Management Policies  | <a href="#">ESG at a Glance</a><br><a href="#">Environmental Policy</a>   |
| KPI A3.1   | Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.  | P. 83 Natural Resources Management<br><br>P. 87-88 Protecting Natural Capital and Biodiversity                   | <a href="#">ESG at a Glance</a>   |
| A4: Climate Change                                   |  |  |   |
| General Disclosure                                   | Policies on identification and mitigation of significant climate-related issues which have impacted, and those which may impact, the issuer.   | P. 66 Environmental Management Policies  | <a href="#">Climate Change Policy</a>   |
| KPI A4.1   | Description of the significant climate-related issues which have impacted, and those which may impact, the issuer, and the actions taken to manage them.   | P. 67-74 Climate Governance<br><br>P. 75-77 Climate Actions<br><br>P. 79-82 Collaborative Low-Carbon Development | <a href="#">Climate-Related and Nature-Related Directive Guide</a><br><br><a href="#">ESG at a Glance</a>   |
| B. Social  |  |  |   |
| B1: Employment                                       |  |  |   |
| General Disclosure                                   | Information on:<br><br>(a) the policies; and<br><br>(b) compliance with relevant laws and regulations that have a significant impact on the issuer<br><br>relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare. | P. 44 United in Effort – Drawing a Blueprint for a Sustainable Society – Management Approach                     | <a href="#">Employee Policy</a><br><a href="#">Human Rights Policy</a><br><a href="#">Anti-Discrimination Policy</a><br><a href="#">ESG at a Glance</a> |
| KPI B1.1   | Total workforce by gender, employment type (for example, full- or part-time), age group and geographical region.   | P. 103-104 Key Statistics  | –   |
| KPI B1.2   | Employee turnover rate by gender, age group and geographical region.   | P. 104-105 Key Statistics  | –   |

| Subject Areas, Aspects, General Disclosures and KPIs |  | Location in the ESG Report 2024   | Other References  |
|--|--|---|---|
| B2: Health and Safety                                |  |   |   |
| General Disclosure                                   | Information on:<br><br>(a) the policies; and<br><br>(b) compliance with relevant laws and regulations that have a significant impact on the issuer<br><br>relating to providing a safe working environment and protecting employees from occupational hazards. | P. 44 United in Effort – Drawing a Blueprint for a Sustainable Society – Management Approach                              | <a href="#">Health and Safety Policy</a><br><a href="#">ESG at a Glance</a>   |
| KPI B2.1   | Number and rate of work-related fatalities occurred in each of the past three years including the reporting year.  | P. 108 Key Statistics   | –   |
| KPI B2.2   | Lost days due to work injury.  | P. 108 Key Statistics   | –   |
| KPI B2.3   | Description of occupational health and safety measures adopted, and how they are implemented and monitored.  | P. 44-49 Building Safety Lines of Defence   | <a href="#">ESG at a Glance</a>   |
| B3: Development and Training                         |  |   |   |
| General Disclosure                                   | Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.  | P. 54-57 Co-Creating a Harmonious Workplace   | <a href="#">Employee Policy</a><br><a href="#">ESG at a Glance</a>  |
| KPI B3.1   | The percentage of employees trained by gender and employee category (e.g. senior management, middle management).   | P. 106-107 Key Statistics   | –   |
| KPI B3.2   | The average training hours completed per employee by gender and employee category.   | P. 106 Key Statistics   | –   |
| B4: Labour Standards                                 |  |   |   |
| General Disclosure                                   | Information on:<br><br>(a) the policies; and<br><br>(b) compliance with relevant laws and regulations that have a significant impact on the issuer<br><br>relating to preventing child and forced labour.  | P. 32 Business Ethics<br><br>P. 44 United in Effort – Drawing a Blueprint for a Sustainable Society – Management Approach | <a href="#">Human Rights Policy</a><br><a href="#">ESG at a Glance</a>  |
| KPI B4.1   | Description of measures to review employment practices to avoid child and forced labour.   | –   | <a href="#">ESG at a Glance</a>   |
| KPI B4.2   | Description of steps taken to eliminate such practices when discovered.  | –   | <a href="#">ESG at a Glance</a>   |
| B5: Supply Chain Management                          |  |   |   |
| General Disclosure                                   | Policies on managing environmental and social risks of the supply chain.   | P. 94-96 Effective Collaboration – Upgrading the Value Chain – Management Approach  | <a href="#">Code of Practices for Suppliers</a><br><a href="#">Sustainable Purchasing Policy</a><br><a href="#">ESG at a Glance</a> |



Appendix II: Indices for the Report

Hong Kong Stock Exchange ESG Reporting Guide Content Index

| Subject Areas, Aspects, General Disclosures and KPIs |   | Location in the ESG Report 2024   | Other References   |
|--|---|---|--|
| KPI B5.1   | Number of suppliers by geographical region.   | P. 109 Key Statistics   | –  |
| 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. | P. 94-97 Supplier Management  | <a href="#">ESG at a Glance</a>  |
| KPI B5.3   | Description of practices used to identify environmental and social risks along the supply chain, and how they are implemented and monitored.                        | P. 94-97 Supplier Management  | <a href="#">ESG at a Glance</a>  |
| KPI B5.4   | Description of practices used to promote environmentally preferable products and services when selecting suppliers, and how they are implemented and monitored.     | P. 94-97 Supplier Management  | <a href="#">ESG at a Glance</a>  |
| B6: Product Responsibility                           |   |   |  |
| General Disclosure                                   | Information on:   | P. 32 Business Ethics   | <a href="#">ESG at a Glance</a>  |
|  | (a) the policies; and   | P. 94 Effective Collaboration – Upgrading the Value Chain – Management Approach | <a href="#">Health and Safety Policy</a>   |
|  | (b) compliance with relevant laws and regulations that have a significant impact on the issuer  |   | <a href="#">Customers Services Code of Conduct Policy</a>  |
|  | relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress.                        |   | <a href="#">Personal Data Privacy Policy</a>   |
|  |   |   | <a href="#">Information Security Policy</a>  |
| 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.   | P. 98-99 Customer Service Management  | <a href="#">ESG at a Glance</a>  |
| KPI B6.3   | Description of practices relating to observing and protecting intellectual property rights.   | P. 34 Intellectual Property Protection  | <a href="#">ESG at a Glance</a><br><a href="#">Code of Conduct</a>   |
| KPI B6.4   | Description of quality assurance process and recall procedures.   | –   | <a href="#">ESG at a Glance</a>  |
| KPI B6.5   | Description of consumer data protection and privacy policies, and how they are implemented and monitored.   | P. 33-34 Data Privacy and Cybersecurity   | <a href="#">ESG at a Glance</a><br><a href="#">Personal Data Privacy Policy</a><br><a href="#">Information Security Policy</a> |

| Subject Areas, Aspects, General Disclosures and KPIs |  | Location in the ESG Report 2024  | Other References  |
|--|--|--|---|
| B7: Anti-corruption                                  |  |  |   |
| General Disclosure                                   | Information on:  | P. 32 Business Ethics  | <a href="#">ESG at a Glance</a>   |
|  | (a) the policies; and  |  | <a href="#">Anti-Fraud Policy</a>   |
|  | (b) compliance with relevant laws and regulations that have a significant impact on the issuer   |  | <a href="#">Code of Conduct</a>   |
|  | relating to bribery, extortion, fraud and money laundering.  |  |   |
| 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.                     | P. 32 Business Ethics  | –   |
| KPI B7.2   | Description of preventive measures and whistle-blowing procedures, and how they are implemented and monitored.   | P. 32 Business Ethics  | <a href="#">ESG at a Glance</a><br><a href="#">Whistleblowing Policy</a>    |
| KPI B7.3   | Description of anti-corruption training provided to directors and staff.   | P. 33 Business Ethics  | <a href="#">ESG at a Glance</a>   |
| 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. | P. 44 United in Effort – Drawing a Blueprint for a Sustainable Society – Management Approach | <a href="#">ESG at a Glance</a><br><a href="#">Social Investment Policy</a> |
|  |  |  |   |
| KPI B8.1   | Focus areas of contribution (e.g. education, environmental concerns, labour needs, health, culture, sport).  | P. 58-61 Caring for the Community  | –   |
| KPI B8.2   | Resources contributed (e.g. money or time) to the focus area.  | P. 58-61 Caring for the Community  | –   |
|  |  | P. 109 Key Statistics  |   |

# Appendix II: Indices for the Report

## IFRS S1 General Requirements for the Disclosure of Sustainability-related Financial Information Content Index

This content index is based on the International Sustainability Standards Board (ISSB)’s IFRS S1 General Requirements for the Disclosure of Sustainability-related Financial Information, released in June 2023. Please refer to the table below for detailed information and consult the related resources available on the websites of [Towngas Smart Energy](#) and [its parent company, HKCG](#), as well as in the [Annual Report 2024](#), the Environmental, Social and Governance (ESG) Report 2024, and the [Climate-Related and Nature-Related Directive Guide](#).

|                     |  | References/Explanation  |  |
|---------------------|--|---|--|
| Reference Paragraph | IFRS Core Content  | Location in the ESG Report 2024                                     | Other References   |
| Governance          |  |   |  |
| 26                  | The objective of sustainability-related financial disclosures on governance is to enable users of general purpose financial reports to understand the governance processes, controls and procedures an entity uses to monitor, manage and oversee sustainability-related risks and opportunities.  |   |  |
| 27                  | To achieve this objective, an entity shall disclose information about:   |   |  |
|                     | (a) the governance body(s) (which can include a board, committee or equivalent body charged with governance) or individual(s) responsible for oversight of sustainability-related risks and opportunities. Specifically, the entity shall identify that body(s) or individual(s) and disclose information about:   |   |  |
|                     | (i) how responsibilities for sustainability-related risks and opportunities are reflected in the terms of reference, mandates, role descriptions and other related policies applicable to that body(s) or individual(s);   | P. 20 ESG Governance<br><br>P. 66 Environmental Management Policies | P. 8-11 <a href="#">Climate-Related and Nature-Related Directive Guide</a>                 |
|                     | (ii) how the body(s) or individual(s) determines whether appropriate skills and competencies are available or will be developed to oversee strategies designed to respond to sustainability-related risks and opportunities;   | P. 20-22 ESG Governance   | <a href="#">ESG Committee</a><br><br><a href="#">Corporate Governance</a>                  |
|                     | (iii) how and how often the body(s) or individual(s) is informed about sustainability-related risks and opportunities;   | P. 20-21 ESG Governance   | <a href="#">Terms of Reference of Environmental, Social and Governance (ESG) Committee</a> |
|                     | (iv) how the body(s) or individual(s) takes into account sustainability-related risks and opportunities when overseeing the entity's strategy, its decisions on major transactions and its risk management processes and related policies, including whether the body(s) or individual(s) has considered trade-offs associated with those risks and opportunities; and | P. 23-31 Risk Management<br><br>P. 67 Climate Governance            |  |
|                     | (v) how the body(s) or individual(s) oversees the setting of targets related to sustainability-related risks and opportunities, and monitors progress towards those targets (see paragraph 51), including whether and how related performance metrics are included in remuneration policies.   | P. 20-22 ESG Governance   |  |

| Reference Paragraph | IFRS Core Content   | References/Explanation   |   |
|---------------------|---|--|---|
|                     |   | Location in the ESG Report 2024  | Other References  |
|                     | (b) management’s role in the governance processes, controls and procedures used to monitor, manage and oversee sustainability-related risks and opportunities, including information about:<br><br>(i) whether the role is delegated to a specific management-level position or management-level committee and how oversight is exercised over that position or committee; and<br><br>(ii) whether management uses controls and procedures to support the oversight of sustainability-related risks and opportunities and, if so, how these controls and procedures are integrated with other internal functions.   | P. 20 ESG Governance<br><br>P. 23 Risk Management<br><br>P. 66 Environmental Management Policies                                 | P. 8-11 <a href="#">Climate-Related and Nature-Related Directive Guide</a><br><br><a href="#">ESG Committee</a><br><br><a href="#">Corporate Governance</a><br><br><a href="#">Terms of Reference of Environmental, Social and Governance (ESG) Committee</a> |
| Strategy            |   |  |   |
| 28                  | The objective of sustainability-related financial disclosures on strategy is to enable users of general purpose financial reports to understand an entity’s strategy for managing sustainability-related risks and opportunities.   |  |   |
| 29                  | Specifically, an entity shall disclose information to enable users of general purpose financial reports to understand:<br><br>(a) the sustainability-related risks and opportunities that could reasonably be expected to affect the entity’s prospects (see paragraphs 30-31);<br><br>(b) the current and anticipated effects of those sustainability-related risks and opportunities on the entity’s business model and value chain (see paragraph 32);<br><br>(c) the effects of those sustainability-related risks and opportunities on the entity’s strategy and decision-making (see paragraph 33);<br><br>(d) the effects of those sustainability-related risks and opportunities on the entity’s financial position, financial performance and cash flows for the reporting period, and their anticipated effects on the entity’s financial position, financial performance and cash flows over the short, medium and long-term, taking into consideration how those sustainability-related risks and opportunities have been factored into the entity’s financial planning (see paragraphs 34-40); and<br><br>(e) the resilience of the entity’s strategy and its business model to those sustainability-related risks (see paragraphs 41-42). | P. 25-31 Risk Management<br><br>P. 67 Climate Governance<br><br><br><br>P. 23-31 Risk Management<br><br>P. 67 Climate Governance | P. 12-25 <a href="#">Climate-Related and Nature-Related Directive Guide</a><br><br><a href="#">Risk Management Framework</a>  |

Appendix II: Indices for the Report

IFRS S1 General Requirements for the Disclosure of Sustainability-related Financial Information Content Index

| Reference Paragraph                            | IFRS Core Content  | References/Explanation                                   |  |
|--|--|--|--|
|  |  | Location in the ESG Report 2024                          | Other References   |
| Sustainability-related risks and opportunities |  |  |  |
| 30   | An entity shall disclose information that enables users of general purpose financial reports to understand the sustainability-related risks and opportunities that could reasonably be expected to affect the entity's prospects. Specifically, the entity shall:<br><br>(a) describe sustainability-related risks and opportunities that could reasonably be expected to affect the entity's prospects;<br><br>(b) specify the time horizons – short, medium or long-term – over which the effects of each of those sustainability-related risks and opportunities could reasonably be expected to occur; and<br><br>(c) explain how the entity defines 'short-term', 'medium-term' and 'long-term' and how these definitions are linked to the planning horizons used by the entity for strategic decision-making. | P. 25-31 Risk Management<br><br>P. 67 Climate Governance | P. 12-25 <a href="#">Climate-Related and Nature-Related Directive Guide</a><br><br>–   |
| 31   | Short, medium and long-term time horizons can vary between entities and depend on many factors, including industry-specific characteristics, such as cash flow, investment and business cycles, the planning horizons typically used in an entity's industry for strategic decision-making and capital allocation plans, and the time horizons over which users of general purpose financial reports conduct their assessments of entities in that industry.   |  |  |
| Business model and value chain                 |  |  |  |
| 32   | An entity shall disclose information that enables users of general purpose financial reports to understand the current and anticipated effects of sustainability-related risks and opportunities on the entity's business model and value chain. Specifically, the entity shall disclose:<br><br>(a) a description of the current and anticipated effects of sustainability-related risks and opportunities on the entity's business model and value chain; and<br><br>(b) a description of where in the entity's business model and value chain sustainability-related risks and opportunities are concentrated (for example, geographical areas, facilities and types of assets).  | P. 25-31 Risk Management<br><br>P. 67 Climate Governance | P. 12-25 <a href="#">Climate-Related and Nature-Related Directive Guide</a><br><br><a href="#">Climate Change Policy</a>   |
| Strategy and decision-making                   |  |  |  |
| 33   | An entity shall disclose information that enables users of general purpose financial reports to understand the effects of sustainability-related risks and opportunities on its strategy and decision-making. Specifically, the entity shall disclose information about:<br><br>(a) how the entity has responded to, and plans to respond to, sustainability-related risks and opportunities in its strategy and decision-making;<br><br>(b) the progress against plans the entity has disclosed in previous reporting periods, including quantitative and qualitative information; and  | P. 23-31 Risk Management<br><br>P. 67 Climate Governance | P. 26-29 <a href="#">Climate-Related and Nature-Related Directive Guide</a><br><br><a href="#">Climate Change Policy</a><br><br><a href="#">Risk Management Framework</a><br><br>– |

| Reference Paragraph                                      | IFRS Core Content  | References/Explanation  |   |
|--|--|---|---|
|  |  | Location in the ESG Report 2024   | Other References  |
|  | (c) trade-offs between sustainability-related risks and opportunities that the entity considered (for example, in making a decision on the location of new operations, an entity might have considered the environmental impacts of those operations and the employment opportunities they would create in a community).                                   | P. 25-31 Risk Management<br><br>P. 67 Climate Governance                      | –   |
| Financial position, financial performance and cash flows |  |   |   |
| 34   | An entity shall disclose information that enables users of general purpose financial reports to understand:  |   |   |
|  | (a) the effects of sustainability-related risks and opportunities on the entity's financial position, financial performance and cash flows for the reporting period (current financial effects); and   | P. 10-11 Green and Sustainable Finance<br><br>P. 25-31 Risk Management        | P. 25 <a href="#">Climate-Related and Nature-Related Directive Guide</a><br><br><a href="#">Green and Sustainable Finance</a> |
|  | (b) the anticipated effects of sustainability-related risks and opportunities on the entity's financial position, financial performance and cash flows over the short, medium and long-term, taking into consideration how sustainability-related risks and opportunities are included in the entity's financial planning (anticipated financial effects). | P. 25-31 Risk Management  | –   |
| 35   | Specifically, an entity shall disclose quantitative and qualitative information about:   |   |   |
|  | (a) how sustainability-related risks and opportunities have affected its financial position, financial performance and cash flows for the reporting period;  | P. 25-31 Risk Management  | P. 25 <a href="#">Climate-Related and Nature-Related Directive Guide</a>  |
|  | (b) the sustainability-related risks and opportunities identified in paragraph 35(a) for which there is a significant risk of a material adjustment within the next annual reporting period to the carrying amounts of assets and liabilities reported in the related financial statements;  | Towngas Smart Energy is preparing for future disclosure.                      |   |
|  | (c) how the entity expects its financial position to change over the short, medium and long-term, given its strategy to manage sustainability-related risks and opportunities, taking into consideration:  |   |   |
|  | (i) its investment and disposal plans (for example, plans for capital expenditure, major acquisitions and divestments, joint ventures, business transformation, innovation, new business areas and asset retirements), including plans the entity is not contractually committed to; and   | P. 10-11 Green and Sustainable Finance  | P. 25 <a href="#">Climate-Related and Nature-Related Directive Guide</a><br><br><a href="#">Green and Sustainable Finance</a> |
|  | (ii) its planned sources of funding to implement its strategy; and   |   |   |
|  | (d) how the entity expects its financial performance and cash flows to change over the short, medium and long-term, given its strategy to manage sustainability-related risks and opportunities.   | P. 10-11 Green and Sustainable Finance<br><br>P. 69, 71-72 Climate Governance | <a href="#">Climate Change Policy</a>   |



Appendix II: Indices for the Report

IFRS S1 General Requirements for the Disclosure of Sustainability-related Financial Information Content Index

| Reference Paragraph | IFRS Core Content   | References/Explanation                       |  |
|---------------------|---|--|--|
|                     |   | Location in the ESG Report 2024              | Other References   |
| 36                  | In providing quantitative information, an entity may disclose a single amount or a range.   | P. 10-11 Green and Sustainable Finance       | P. 25 <u>Climate-Related and Nature-Related Directive Guide</u>        |
| 37                  | In preparing disclosures about the anticipated financial effects of a sustainability-related risk or opportunity, an entity shall:  |  |  |
|                     | (a) use all reasonable and supportable information that is available to the entity at the reporting date without undue cost or effort (see paragraphs B8–B10); and  | P. 10-11 Green and Sustainable Finance       | P. 25, 28-29 <u>Climate-Related and Nature-Related Directive Guide</u> |
|                     | (b) use an approach that is commensurate with the skills, capabilities and resources that are available to the entity for preparing those disclosures.  | P. 69, 71-72 Climate Governance              | <u>Green and Sustainable Finance</u>                                   |
| 38                  | An entity need not provide quantitative information about the current or anticipated financial effects of a sustainability-related risk or opportunity if the entity determines that:   |  |  |
|                     | (a) those effects are not separately identifiable; or   |  |  |
|                     | (b) the level of measurement uncertainty involved in estimating those effects is so high that the resulting quantitative information would not be useful (see paragraphs 77-82).  |  |  |
| 39                  | In addition, an entity need not provide quantitative information about the anticipated financial effects of a sustainability-related risk or opportunity if the entity does not have the skills, capabilities or resources to provide that quantitative information.  |  |  |
| 40                  | If an entity determines that it need not provide quantitative information about the current or anticipated financial effects of a sustainability-related risk or opportunity applying the criteria set out in paragraphs 38-39, the entity shall:   |  |  |
|                     | (a) explain why it has not provided quantitative information;   |  |  |
|                     | (b) provide qualitative information about those financial effects, including identifying line items, totals and subtotals within the related financial statements that are likely to be affected, or have been affected, by that sustainability-related risk or opportunity; and  |  |  |
|                     | (c) provide quantitative information about the combined financial effects of that sustainability-related risk or opportunity with other sustainability-related risks or opportunities and other factors unless the entity determines that quantitative information about the combined financial effects would not be useful.  |  |  |
| Resilience          |   |  |  |
| 41                  | An entity shall disclose information that enables users of general purpose financial reports to understand its capacity to adjust to the uncertainties arising from sustainability-related risks. An entity shall disclose a qualitative and, if applicable, quantitative assessment of the resilience of its strategy and business model in relation to its sustainability-related risks, including information about how the assessment was carried out and its time horizon. When providing quantitative information, an entity may disclose a single amount or a range. | P. 23-31 Risk Management                     | P. 12-25 <u>Climate-Related and Nature-Related Directive Guide</u>     |
|                     |   | P. 36-41 Double Materiality Assessment (DMA) | <u>Climate Change Policy</u>   |
|                     |   | P. 67 Climate Governance                     | <u>Risk Management Framework</u>                                       |

| Reference Paragraph | IFRS Core Content   | References/Explanation                                      |  |
|---------------------|---|---|--|
|                     |   | Location in the ESG Report 2024                             | Other References   |
| 42                  | Other IFRS Sustainability Disclosure Standards may specify the type of information an entity is required to disclose about its resilience to specific sustainability-related risks and how to prepare those disclosures, including whether a scenario analysis is required. |   |  |
| Risk management     |   |   |  |
| 43                  | The objective of sustainability-related financial disclosures on risk management is to enable users of general purpose financial reports:   |   |  |
|                     | (a) to understand an entity's processes to identify, assess, prioritise and monitor sustainability-related risks and opportunities, including whether and how those processes are integrated into and inform the entity's overall risk management process; and              | P. 23-25 Risk Management                                    | P. 12-25 <u>Climate-Related and Nature-Related Directive Guide</u> |
|                     | (b) to assess the entity's overall risk profile and its overall risk management process.  | P. 36-41 Double Materiality Assessment (DMA)                | <u>Double Materiality Assessment</u>                               |
|                     |   | P. 67 Climate Governance                                    | <u>Risk Management Framework</u>                                   |
| 44                  | To achieve this objective, an entity shall disclose information about:  |   |  |
|                     | (a) the processes and related policies the entity uses to identify, assess, prioritise and monitor sustainability-related risks, including information about:   |   |  |
|                     | (i) the inputs and parameters the entity uses (for example, information about data sources and the scope of operations covered in the processes);   | P. 36-41 Double Materiality Assessment (DMA)                | P. 12-17 <u>Climate-Related and Nature-Related Directive Guide</u> |
|                     |   | P. 67 Climate Governance                                    |  |
|                     | (ii) whether and how the entity uses scenario analysis to inform its identification of sustainability related risks;  | P. 67 Climate Governance                                    | <u>Corporate Governance</u>  |
|                     | (iii) how the entity assesses the nature, likelihood and magnitude of the effects of those risks (for example, whether the entity considers qualitative factors, quantitative thresholds or other criteria);  | P. 23-31 Risk Management                                    | <u>Double Materiality Assessment</u>                               |
|                     | (iv) whether and how the entity prioritises sustainability-related risks relative to other types of risk;   |   | <u>Risk Management Framework</u>                                   |
|                     | (v) how the entity monitors sustainability-related risks; and   | P. 20-22 ESG Governance                                     |  |
|                     |   | P. 23-24 Risk Management                                    |  |
|                     |   | P. 66-67 Environmental Management Policies                  |  |
|                     | (vi) whether and how the entity has changed the processes it uses compared with the previous reporting period;  | Towngas Smart Energy did not make changes to the processes. |  |

Appendix II: Indices for the Report

IFRS S1 General Requirements for the Disclosure of Sustainability-related Financial Information Content Index

| Reference Paragraph | IFRS Core Content   | References/Explanation                       |  |
|---------------------|---|--|--|
|                     |   | Location in the ESG Report 2024              | Other References   |
|                     | (b) the processes the entity uses to identify, assess, prioritise and monitor sustainability-related opportunities; and   | P. 23-31 Risk Management                     | P. 12-25 <u>Climate-Related and Nature-Related Directive Guide</u> |
|                     | (c) the extent to which, and how, the processes for identifying, assessing, prioritising and monitoring sustainability-related risks and opportunities are integrated into and inform the entity's overall risk management process.   | P. 36-41 Double Materiality Assessment (DMA) | <u>Double Materiality Assessment</u>                               |
|                     |   | P. 67 Climate Governance                     | <u>Risk Management Framework</u>                                   |
| Metrics and targets |   |  |  |
| 45                  | The objective of sustainability-related financial disclosures on metrics and targets is to enable users of general purpose financial reports to understand an entity's performance in relation to its sustainability-related risks and opportunities, including progress towards any targets the entity has set, and any targets it is required to meet by law or regulation. |  |  |
| 46                  | An entity shall disclose, for each sustainability-related risk and opportunity that could reasonably be expected to affect the entity's prospects:  |  |  |
|                     | (a) metrics required by an applicable IFRS Sustainability Disclosure Standard; and  | P. 67 Climate Governance                     | <u>Climate Change Policy</u>                                       |
|                     | (b) metrics the entity uses to measure and monitor:   |  |  |
|                     | (i) that sustainability-related risk or opportunity; and  |  |  |
|                     | (ii) its performance in relation to that sustainability-related risk or opportunity, including progress towards any targets the entity has set, and any targets it is required to meet by law or regulation.  |  |  |
| 47                  | In the absence of an IFRS Sustainability Disclosure Standard that specifically applies to a sustainability-related risk or opportunity, an entity shall apply paragraphs 57-58 to identify applicable metrics.  |  |  |
| 48                  | Metrics disclosed by an entity applying paragraphs 45-46 shall include metrics associated with particular business models, activities or other common features that characterise participation in an industry.  | P. 67 Climate Governance                     | –  |
| 49                  | If an entity discloses a metric taken from a source other than IFRS Sustainability Disclosure Standards, the entity shall identify the source and the metric taken.   |  |  |

| Reference Paragraph | IFRS Core Content  | References/Explanation          |                  |
|---------------------|--|---------------------------------|------------------|
|                     |  | Location in the ESG Report 2024 | Other References |
| 50                  | <p>If a metric has been developed by an entity, the entity shall disclose information about:</p> <p>(a) how the metric is defined, including whether it is derived by adjusting a metric taken from a source other than IFRS Sustainability Disclosure Standards and, if so, which source and how the metric disclosed by the entity differs from the metric specified in that source;</p> <p>(b) whether the metric is an absolute measure, a measure expressed in relation to another metric or a qualitative measure (such as a red, amber, green—or RAG—status);</p> <p>(c) whether the metric is validated by a third party and, if so, which party; and</p> <p>(d) the method used to calculate the metric and the inputs to the calculation, including the limitations of the method used and the significant assumptions made.</p> |                                 |                  |
| 51                  | <p>An entity shall disclose information about the targets it has set to monitor progress towards achieving its strategic goals, and any targets it is required to meet by law or regulation. For each target, the entity shall disclose:</p> <p>(a) the metric used to set the target and to monitor progress towards reaching the target;</p> <p>(b) the specific quantitative or qualitative target the entity has set or is required to meet;</p> <p>(c) the period over which the target applies;</p> <p>(d) the base period from which progress is measured;</p> <p>(e) any milestones and interim targets;</p> <p>(f) performance against each target and an analysis of trends or changes in the entity's performance; and</p> <p>(g) any revisions to the target and an explanation for those revisions.</p>                       | P. 67 Climate Governance        | –                |
| 52                  | <p>The definition and calculation of metrics, including metrics used to set the entity's targets and monitor progress towards reaching them, shall be consistent over time. If a metric is redefined or replaced, an entity shall apply paragraph B52.</p>   |                                 |                  |
| 53                  | <p>An entity shall label and define metrics and targets using meaningful, clear and precise names and descriptions.</p>  |                                 |                  |

# Appendix II: Indices for the Report

## IFRS S2 Climate-related Disclosures Content Index

This content index is based on the International Sustainability Standards Board (ISSB)'s IFRS S2 Climate-related Disclosures, released in June 2023. Please refer to the table below for detailed information and consult the related resources available on the website of [Towngas Smart Energy](#) and its parent company, [HKCG](#), as well as in [the Annual Report 2024](#), the Environmental, Social and Governance (ESG) Report 2024, and the [Climate-Related and Nature-Related Directive Guide](#).

| Reference Paragraph | IFRS Core Content  | References/Explanation   |                  |
|---------------------|--|--|------------------|
|                     |  | Location in the ESG Report 2024  | Other References |
| Governance          |  |  |                  |
| 5                   | The objective of climate-related financial disclosures on governance is to enable users of general purpose financial reports to understand the governance processes, controls and procedures an entity uses to monitor, manage and oversee climate-related risks and opportunities.  |  |                  |
| 6                   | To achieve this objective, an entity shall disclose information about:<br><br>(a) the governance body(s) (which can include a board, committee or equivalent body charged with governance) or individual(s) responsible for oversight of climate-related risks and opportunities. Specifically, the entity shall identify that body(s) or individual(s) and disclose information about:<br><br>(i) how responsibilities for climate-related risks and opportunities are reflected in the terms of reference, mandates, role descriptions and other related policies applicable to that body(s) or individual(s);<br><br>(ii) how the body(s) or individual(s) determines whether appropriate skills and competencies are available or will be developed to oversee strategies designed to respond to climate-related risks and opportunities;<br><br>(iii) how and how often the body(s) or individual(s) is informed about climate-related risks and opportunities;<br><br>(iv) how the body(s) or individual(s) takes into account climate-related risks and opportunities when overseeing the entity's strategy, its decisions on major transactions and its risk management processes and related policies, including whether the body(s) or individual(s) has considered trade-offs associated with those risks and opportunities; and<br><br>(v) how the body(s) or individual(s) oversees the setting of targets related to climate-related risks and opportunities, and monitors progress towards those targets (see paragraphs 33-36), including whether and how related performance metrics are included in remuneration policies (see paragraph 29(g)). | 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| Reference Paragraph | IFRS Core Content   | References/Explanation   |   |
|---------------------|---|--|---|
|                     |   | Location in the ESG Report 2024  | Other References  |
|                     | (b) management's role in the governance processes, controls and procedures used to monitor, manage and oversee climate-related risks and opportunities, including information about:<br>(i) whether the role is delegated to a specific management-level position or management-level committee and how oversight is exercised over that position or committee; and<br>(ii) whether management uses controls and procedures to support the oversight of climate-related risks and opportunities and, if so, how these controls and procedures are integrated with other internal functions.   | P. 20 ESG Governance<br><br>P. 23 Risk Management<br><br>P. 66-67 Environmental Management Policies  | P. 8-11 Climate-Related and Nature-Related Directive Guide<br><br>ESG Committee<br><br>Corporate Governance<br><br>Terms of Reference of Environmental, Social and Governance (ESG) Committee |
| 7                   | In preparing disclosures to fulfil the requirements in paragraph 6, an entity shall avoid unnecessary duplication in accordance with IFRS S1 General Requirements for Disclosure of Sustainability-related Financial Information (IFRS S1) (see paragraph B42(b) of IFRS S1). For example, although an entity shall provide the information required by paragraph 6, if oversight of sustainability-related risks and opportunities is managed on an integrated basis, the entity would avoid duplication by providing integrated governance disclosures instead of separate disclosures for each sustainability-related risk and opportunity.  |  |   |
| Strategy            |   |  |   |
| 8                   | The objective of climate-related financial disclosures on strategy is to enable users of general purpose financial reports to understand an entity's strategy for managing climate-related risks and opportunities.   |  |   |
| 9                   | Specifically, an entity shall disclose information to enable users of general purpose financial reports to understand:<br>(a) the climate-related risks and opportunities that could reasonably be expected to affect the entity's prospects (see paragraphs 10-12);<br>(b) the current and anticipated effects of those climate-related risks and opportunities on the entity's business model and value chain (see paragraph 13);<br>(c) the effects of those climate-related risks and opportunities on the entity's strategy and decision-making, including information about its climate-related transition plan (see paragraph 14);<br>(d) the effects of those climate-related risks and opportunities on the entity's financial position, financial performance and cash flows for the reporting period, and their anticipated effects on the entity's financial position, financial performance and cash flows over the short, medium and long-term, taking into consideration how those climate-related risks and opportunities have been factored into the entity's financial planning (see paragraphs 15-21); and<br>(e) the climate resilience of the entity's strategy and its business model to climate-related changes, developments and uncertainties, taking into consideration the entity's identified climate-related risks and opportunities (see paragraph 22). | P. 23 Risk Management<br><br>P. 67-71 Climate Governance<br><br>P. 74-77 Climate Actions<br><br>P. 69-71 Climate Governance<br><br>P. 67-71 Climate Governance | P.12-25 Climate-Related and Nature-Related Directive Guide<br><br>Risk Management Framework<br><br>P. 26-29 Climate-Related and Nature-Related Directive Guide                                |



Appendix II: Indices for the Report

IFRS S2 Climate-related Disclosures Content Index

|   |   | References/Explanation                                      |  |
|---|---|---|--|
| Reference Paragraph                     | IFRS Core Content   | Location in the ESG Report 2024                             | Other References   |
| Climate-related risks and opportunities |   |   |  |
| 10                                      | An entity shall disclose information that enables users of general purpose financial reports to understand the climate-related risks and opportunities that could reasonably be expected to affect the entity's prospects. Specifically,the entity shall:   |   |  |
|   | (a) describe climate-related risks and opportunities that could reasonably be expected to affect the entity's prospects;  | P. 23-31 Risk Management<br><br>P. 67-71 Climate Governance | P. 12-25 <u>Climate-Related and Nature-Related Directive Guide</u> |
|   | (b) explain, for each climate-related risk the entity has identified, whether the entity considers the risk to be a climate-related physical risk or climate-related transition risk;   | P. 67-71 Climate Governance                                 |  |
|   | (c) specify, for each climate-related risk and opportunity the entity has identified, over which time horizons – short, medium or long-term – the effects of each climate-related risk and opportunity could reasonably be expected to occur; and   | P. 69-70 Climate Governance                                 |  |
|   | (d) explain how the entity defines 'short-term', 'medium-term' and 'long-term' and how these definitions are linked to the planning horizons used by the entity for strategic decision-making.  |   |  |
| 11                                      | In identifying the climate-related risks and opportunities that could reasonably be expected to affect an entity's prospects, the entity shall use all reasonable and supportable information that is available to the entity at the reporting date without undue cost or effort, including information about past events, current conditions and forecasts of future conditions. |   |  |
| 12                                      | In identifying the climate-related risks and opportunities that could reasonably be expected to affect an entity's prospects, the entity shall refer to and consider the applicability of the industry-based disclosure topics defined in the Industry-based Guidance on Implementing IFRS S2.  |   |  |
| Business model and value chain          |   |   |  |
| 13                                      | An entity shall disclose information that enables users of general purpose financial reports to understand the current and anticipated effects of climate-related risks and opportunities on the entity's business model and value chain. Specifically, the entity shall disclose:  |   |  |
|   | (a) a description of the current and anticipated effects of climate-related risks and opportunities on the entity's business model and value chain; and   | P. 23-31 Risk Management<br><br>P. 67-72 Climate Governance | P. 12-25 <u>Climate-Related and Nature-Related Directive Guide</u> |
|   | (b) a description of where in the entity's business model and value chain climate-related risks and opportunities are concentrated (for example, geographical areas, facilities and types of assets).   | P. 23-31 Risk Management<br><br>P. 67-71 Climate Governance |  |

|                              |   | References/Explanation  |  |
|------------------------------|---|---|--|
| Reference Paragraph          | IFRS Core Content   | Location in the ESG Report 2024   | Other References   |
| Strategy and decision-making |   |   |  |
| 14                           | An entity shall disclose information that enables users of general purpose financial reports to understand the effects of climate-related risks and opportunities on its strategy and decision-making. Specifically, the entity shall disclose:   |   |  |
|                              | (a) information about how the entity has responded to, and plans to respond to, climate-related risks and opportunities in its strategy and decision-making, including how the entity plans to achieve any climate-related targets it has set and any targets it is required to meet by law or regulation. Specifically, the entity shall disclose information about:   |   |  |
|                              | (i) Current and anticipated changes to the entity's business model, including its resource allocation, to address climate-related risks and opportunities (for example, these changes could include plans to manage or decommission carbon-, energy- or water-intensive operations; resource allocations resulting from demand or supply-chain changes; resource allocations arising from business development through capital expenditure or additional expenditure on research and development; and acquisitions or divestments); | P. 74-77 Climate Actions  | P. 18-24 <u>Climate-Related and Nature-Related Directive Guide</u><br><br><u>Climate Change Policy</u> |
|                              | (ii) current and anticipated direct mitigation and adaptation efforts (for example, through changes in production processes or equipment, relocation of facilities, workforce adjustments, and changes in product specifications);  | P. 83-86 Natural Resources Management   |  |
|                              | (iii) current and anticipated indirect mitigation and adaptation efforts (for example, through working with customers and supply chains);   | P. 35 Stakeholder Engagement<br><br>P. 79-82 Collaborative Low-Carbon Development<br><br>P. 94-97 Supplier Management |  |
|                              | (iv) any climate-related transition plan the entity has, including information about key assumptions used in developing its transition plan, and dependencies on which the entity's transition plan relies; and   | P. 67-71 Climate Governance   |  |
|                              | (v) how the entity plans to achieve any climate-related targets, including any greenhouse gas emissions targets, described in accordance with paragraphs 33-36.   | P. 71 Climate Governance  |  |
|                              | (b) information about how the entity is resourcing, and plans to resource, the activities disclosed in accordance with paragraph 14(a).   |   |  |
|                              | (c) quantitative and qualitative information about the progress of plans disclosed in previous reporting periods in accordance with paragraph 14(a).  | P. 68-71 Climate Governance   |  |

Appendix II: Indices for the Report

IFRS S2 Climate-related Disclosures Content Index

| Reference Paragraph                                      | IFRS Core Content  | References/Explanation          |                  |
|--|--|---------------------------------|------------------|
|  |  | Location in the ESG Report 2024 | Other References |
| Financial position, financial performance and cash flows |  |                                 |                  |
| 15   | An entity shall disclose information that enables users of general purpose financial reports to understand:<br><br>(a) the effects of climate-related risks and opportunities on the entity's financial position, financial performance and cash flows for the reporting period (current financial effects); and<br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><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|                                 |                  |

| Reference Paragraph | IFRS Core Content  | References/Explanation                 |   |
|---------------------|--|--|---|
|                     |  | Location in the ESG Report 2024        | Other References  |
| 17                  | In providing quantitative information, an entity may disclose a single amount or a range.  | P. 10-11 Green and Sustainable Finance | P. 25 Climate-Related and Nature-Related Directive Guide  |
| 18                  | In preparing disclosures about the anticipated financial effects of a climate-related risk or opportunity, an entity shall:<br><br>(a) use all reasonable and supportable information that is available to the entity at the reporting date without undue cost or effort; and<br><br>(b) use an approach that is commensurate with the skills, capabilities and resources that are available to the entity for preparing those disclosures.  | P. 67-71 Climate Governance            | <div>P. 12-25 Climate-Related and Nature-Related Directive Guide</div> <div>Climate Change Policy</div> |
| 19                  | An entity need not provide quantitative information about the current or anticipated financial effects of a climate-related risk or opportunity if the entity determines that:<br><br>(a) those effects are not separately identifiable; or<br><br>(b) the level of measurement uncertainty involved in estimating those effects is so high that the resulting quantitative information would not be useful.   |  |   |
| 20                  | In addition, an entity need not provide quantitative information about the anticipated financial effects of a climate-related risk or opportunity if the entity does not have the skills, capabilities or resources to provide that quantitative information.  |  |   |
| 21                  | If an entity determines that it need not provide quantitative information about the current or anticipated financial effects of a climate-related risk or opportunity applying the criteria set out in paragraphs 19-20, the entity shall:<br><br>(a) explain why it has not provided quantitative information;<br><br>(b) provide qualitative information about those financial effects, including identifying line items, totals and subtotals within the related financial statements that are likely to be affected, or have been affected, by that climate-related risk or opportunity; and<br><br>(c) provide quantitative information about the combined financial effects of that climate-related risk or opportunity with other climate-related risks or opportunities and other factors unless the entity determines that quantitative information about the combined financial effects would not be useful. |  |   |

Appendix II: Indices for the Report

IFRS S2 Climate-related Disclosures Content Index

| Reference Paragraph  |  | IFRS Core Content   | References/Explanation          |   |
|--|--|---|---------------------------------|---|
|  |  |   | Location in the ESG Report 2024 | Other References  |
| Climate resilience   |  |   |                                 |   |
| 22   | An entity shall disclose information that enables users of general purpose financial reports to understand the resilience of the entity's strategy and business model to climate-related changes, developments and uncertainties, taking into consideration the entity's identified climate-related risks and opportunities. The entity shall use climate-related scenario analysis to assess its climate resilience using an approach that is commensurate with the entity's circumstances (see paragraphs B1–B18). In providing quantitative information, the entity may disclose a single amount or a range. Specifically, the entity shall disclose: |   |                                 |   |
| (a) the entity's assessment of its climate resilience as at the reporting date, which shall enable users of general purpose financial reports to understand:   |  |   |                                 |   |
| (i) the implications, if any, of the entity's assessment for its strategy and business model, including how the entity would need to respond to the effects identified in the climate-related scenario analysis;   |  | P. 67 Climate Governance  |                                 | P. 12-25 <u>Climate-Related and Nature-Related Directive Guide</u>  |
| (ii) the significant areas of uncertainty considered in the entity's assessment of its climate resilience;   |  | —   |                                 |   |
| (iii) the entity's capacity to adjust or adapt its strategy and business model to climate change over the short, medium and long-term, including   |  |   |                                 |   |
| (1) the availability of, and flexibility in, the entity's existing financial resources to respond to the effects identified in the climate-related scenario analysis, including to address climate-related risks and to take advantage of climate-related opportunities; |  | P. 10-11 Green and Sustainable Finance  |                                 | P. 28-29 <u>Climate-Related and Nature-Related Directive Guide</u>  |
| (2) the entity's ability to redeploy, repurpose, upgrade or decommission existing assets; and  |  | P. 44-46 Building Safety Lines of Defence<br><br>P. 78 Gas Leakage Management |                                 | <u>Health and Safety Policy</u>   |
| (3) the effect of the entity's current and planned investments in climate-related mitigation, adaptation and opportunities for climate resilience; and   |  | P. 89 ESG Investment Strategy   |                                 | P. 25, 27-29, 50-57 <u>Climate-Related and Nature-Related Directive Guide</u><br><br><u>Green and Sustainable Finance</u> |

| Reference Paragraph | IFRS Core Content   | References/Explanation  |  |
|---------------------|---|---|--|
|                     |   | Location in the ESG Report 2024   | Other References   |
|                     | (b) how and when the climate-related scenario analysis was carried out, including:<br><br>(i) information about the inputs the entity used, including:<br><br>(1) which climate-related scenarios the entity used for the analysis and the sources of those scenarios;<br><br>(2) whether the analysis included a diverse range of climate-related scenarios;<br><br>(3) whether the climate-related scenarios used for the analysis are associated with climate-related transition risks or climate-related physical risks;<br><br>(4) whether the entity used, among its scenarios, a climate-related scenario aligned with the latest international agreement on climate change;<br><br>(5) why the entity decided that its chosen climate-related scenarios are relevant to assessing its resilience to climate-related changes, developments or uncertainties;<br><br>(6) the time horizons the entity used in the analysis; and<br><br>(7) what scope of operations the entity used in the analysis (for example, the operating locations and business units used in the analysis);<br><br>(ii) the key assumptions the entity made in the analysis, including assumptions about:<br><br>(1) climate-related policies in the jurisdictions in which the entity operates;<br><br>(2) macroeconomic trends;<br><br>(3) national- or regional-level variables (for example, local weather patterns, demographics, land use, infrastructure and availability of natural resources);<br><br>(4) energy usage and mix; and<br><br>(5) developments in technology; and<br><br>(iii) the reporting period in which the climate-related scenario analysis was carried out (see paragraph B18). | P. 67 Climate Governance  | P. 12-25 <u>Climate-Related and Nature-Related Directive Guide</u> |
|                     |   | P. 66 Toward Carbon Neutral – Initiating the New Green Era: Management Approach | —  |
|                     |   | P. 36-37 Double Materiality Assessment (DMA)                                    | <u>Double Materiality Assessment</u>                               |
|                     |   | P. 67 Climate Governance  | —  |
|                     |   | P. 83 Energy Management<br><br>P. 81 Collaborative Low-Carbon Development       | —  |
|                     |   | P. 79-82 Collaborative Low-Carbon Development                                   | P. 50-57 <u>Climate-Related and Nature-Related Directive Guide</u> |
|                     |   | P. 67 Climate Governance  | P. 12-17 <u>Climate-Related and Nature-Related Directive Guide</u> |
| 23                  | In preparing disclosures to meet the requirements in paragraphs 13-22, an entity shall refer to and consider the applicability of cross-industry metric categories, as described in paragraph 29, and industry-based metrics associated with disclosure topics defined in the Industry-based Guidance on Implementing IFRS S2 as described in paragraph 32.   |   |  |



Appendix II: Indices for the Report

IFRS S2 Climate-related Disclosures Content Index

| Reference Paragraph | IFRS Core Content   | References/Explanation                                    |  |
|---------------------|---|---|--|
|                     |   | Location in the ESG Report 2024                           | Other References   |
| Risk management     |   |   |  |
| 24                  | The objective of climate-related financial disclosures on risk management is to enable users of general purpose financial reports to understand an entity's processes to identify, assess, prioritise and monitor climate-related risks and opportunities, including whether and how those processes are integrated into and inform the entity's overall risk management process. |   |  |
| 25                  | To achieve this objective, an entity shall disclose information about:  |   |  |
|                     | (a) the processes and related policies the entity uses to identify, assess, prioritise and monitor climate-related risks, including information about:  |   |  |
|                     | (i) the inputs and parameters the entity uses (for example, information about data sources and the scope of operations covered in the processes);   | P. 36-39 Double Materiality Assessment (DMA)              | P. 12-17 <a href="#">Climate-Related and Nature-Related Directive Guide</a>                |
|                     |   | P. 67 Climate Governance                                  | <a href="#">Double Materiality Assessment</a>  |
|                     | (ii) whether and how the entity uses climate-related scenario analysis to inform its identification of climate-related risks  | P. 67 Climate Governance                                  | <a href="#">Risk Management Framework</a>  |
|                     | (iii) how the entity assesses the nature, likelihood and magnitude of the effects of those risks (for example, whether the entity considers qualitative factors, quantitative thresholds or other criteria);  | P. 23-31 Risk Management                                  |  |
|                     | (iv) whether and how the entity prioritises climate-related risks relative to other types of risk;  | P. 38-39 Double Materiality Assessment (DMA)              |  |
|                     | (v) how the entity monitors climate-related risks; and  | P. 20-21 ESG Governance                                   | P. 8-11 <a href="#">Climate-Related and Nature-Related Directive Guide</a>                 |
|                     |   | P. 44-45 Building Safety Lines of Defence                 | <a href="#">ESG Committee</a>  |
|                     |   | P. 66-67 Environmental Management Policies                | <a href="#">Corporate Governance</a>   |
|                     |   |   | <a href="#">Terms of Reference of Environmental, Social and Governance (ESG) Committee</a> |
|                     | (vi) whether and how the entity has changed the processes it uses compared with the previous reporting period;  | Towngas Smart Energy did not make changes to the process. |  |

| Reference Paragraph     | IFRS Core Content   | References/Explanation   |   |
|-------------------------|---|--|---|
|                         |   | Location in the ESG Report 2024  | Other References  |
|                         | (b) the processes the entity uses to identify, assess, prioritise and monitor climate-related opportunities, including information about whether and how the entity uses climate-related scenario analysis to inform its identification of climate-related opportunities; and<br>(c) the extent to which, and how, the processes for identifying, assessing, prioritising and monitoring climate-related risks and opportunities are integrated into and inform the entity's overall risk management process.   | <div>P. 23-31 Risk Management</div> <div>P. 39 Double Materiality Assessment (DMA)</div> <div>P. 67 Climate Governance</div> | <div><u>Climate Change Policy</u></div> <div>P. 12-17 <u>Climate-Related and Nature-Related Directive Guide</u></div> <div><u>Double Materiality Assessment</u></div> <div><u>Risk Management Framework</u></div> |
| 26                      | In preparing disclosures to fulfil the requirements in paragraph 25, an entity shall avoid unnecessary duplication in accordance with IFRS S1 (see paragraph B42(b) of IFRS S1). For example, although an entity shall provide the information required by paragraph 25, if oversight of sustainability-related risks and opportunities is managed on an integrated basis, the entity would avoid duplication by providing integrated risk management disclosures instead of separate disclosures for each sustainability-related risk and opportunity.   |  |   |
| Metrics and targets     |   |  |   |
| 27                      | The objective of climate-related financial disclosures on metrics and targets is to enable users of general purpose financial reports to understand an entity's performance in relation to its climate-related risks and opportunities, including progress towards any climate-related targets it has set, and any targets it is required to meet by law or regulation.   |  |   |
| 28                      | To achieve this objective, an entity shall disclose:<br>(a) information relevant to the cross-industry metric categories (see paragraphs 29-31);<br>(b) industry-based metrics that are associated with particular business models, activities or other common features that characterise participation in an industry (see paragraph 32); and<br>(c) targets set by the entity, and any targets it is required to meet by law or regulation, to mitigate or adapt to climate-related risks or take advantage of climate-related opportunities, including metrics used by the governance body or management to measure progress towards these targets (see paragraphs 33-37). | <div>P. 67 Climate Governance</div>  | <div>–</div>  |
| Climate-related metrics |   |  |   |
| 29                      | An entity shall disclose information relevant to the cross-industry metric categories of:<br>(a) greenhouse gases – the entity shall:<br>(i) disclose its absolute gross greenhouse gas emissions generated during the reporting period, expressed as metric tonnes of CO <sub>2</sub> equivalent (see paragraphs B19–B22), classified as:<br>(1) Scope 1 greenhouse gas emissions;<br>(2) Scope 2 greenhouse gas emissions; and  | <div>P. 72 Carbon Footprint</div> <div>P. 110 Key Statistics</div>   | <div>–</div>  |

Appendix II: Indices for the Report

IFRS S2 Climate-related Disclosures Content Index

| Reference Paragraph | IFRS Core Content  | References/Explanation   |                  |
|---------------------|--|--|------------------|
|                     |  | Location in the ESG Report 2024  | Other References |
|                     | (3) Scope 3 greenhouse gas emissions;  | P. 73 Carbon Footprint   | –                |
|                     |  | P. 110 Key Statistics  |                  |
|                     | (ii) measure its greenhouse gas emissions in accordance with the Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (2004) unless required by a jurisdictional authority or an exchange on which the entity is listed to use a different method for measuring its greenhouse gas emissions (see paragraphs B23–B25);             | P. 110 Key Statistics  |                  |
|                     | (iii) disclose the approach it uses to measure its greenhouse gas emissions (see paragraphs B26–B29) including:  |  |                  |
|                     | (1) the measurement approach, inputs and assumptions the entity uses to measure its greenhouse gas emissions;  | P. 72-73 Carbon Footprint  | –                |
|                     |  | P. 110 Key Statistics  |                  |
|                     | (2) the reason why the entity has chosen the measurement approach, inputs and assumptions it uses to measure its greenhouse gas emissions; and   |  |                  |
|                     | (3) any changes the entity made to the measurement approach, inputs and assumptions during the reporting period and the reasons for those changes;   | Towngas Smart Energy did not make changes to the measurement approach. |                  |
|                     | (iv) for Scope 1 and Scope 2 greenhouse gas emissions disclosed in accordance with paragraph 29(a)(i)(1)–(2), disaggregate emissions between:  |  |                  |
|                     | (1) the consolidated accounting group (for example, for an entity applying IFRS Accounting Standards, this group would comprise the parent and its consolidated subsidiaries); and   | P. 72-73 Carbon Footprint  | –                |
|                     | (2) other investees excluded from paragraph 29(a)(iv)(1) (for example, for an entity applying IFRS Accounting Standards, these investees would include associates, joint ventures and unconsolidated subsidiaries);  | P. 110 Key Statistics  |                  |
|                     | (v) for Scope 2 greenhouse gas emissions disclosed in accordance with paragraph 29(a)(i)(2), disclose its location-based Scope 2 greenhouse gas emissions, and provide information about any contractual instruments that is necessary to inform users’ understanding of the entity’s Scope 2 greenhouse gas emissions (see paragraphs B30–B31); and | P. 73 Climate Governance   |                  |
|                     | (vi) for Scope 3 greenhouse gas emissions disclosed in accordance with paragraph 29(a)(i)(3), and with reference to paragraphs B32–B57, disclose:  |  |                  |
|                     | (1) the categories included within the entity’s measure of Scope 3 greenhouse gas emissions, in accordance with the Scope 3 categories described in the Greenhouse Gas Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard (2011); and  | P. 72-73 Carbon Footprint  | –                |
|                     |  | P. 110 Key Statistics  |                  |
|                     | (2) additional information about the entity’s Category 15 greenhouse gas emissions or those associated with its investments (financed emissions), if the entity’s activities include asset management, commercial banking or insurance (see paragraphs B58–B63);   |  |                  |

|                     |  | References/Explanation  |   |
|---------------------|--|---|---|
| Reference Paragraph | IFRS Core Content  | Location in the ESG Report 2024   | Other References  |
|                     | (b) climate-related transition risks—the amount and percentage of assets or business activities vulnerable to climate-related transition risks;  | P. 10-11 Green and Sustainable Finance<br><br>P. 67 Climate Governance<br><br>P. 89 ESG Investment Strategy | P. 18-25, 28-29 <u>Climate-Related and Nature-Related Directive Guide</u> |
|                     | (c) climate-related physical risks – the amount and percentage of assets or business activities vulnerable to climate-related physical risks;  |   |   |
|                     | (d) climate-related opportunities – the amount and percentage of assets or business activities aligned with climate-related opportunities;   |   |   |
|                     | (e) capital deployment – the amount of capital expenditure, financing or investment deployed towards climate-related risks and opportunities;  |   |   |
|                     | (f) internal carbon prices – the entity shall disclose:  |   |   |
|                     | (i) an explanation of whether and how the entity is applying a carbon price in decision-making (for example, investment decisions, transfer pricing and scenario analysis); and  | P. 89 ESG Investment Strategy   | –   |
|                     | (ii) the price for each metric tonne of greenhouse gas emissions the entity uses to assess the costs of its greenhouse gas emissions;  |   |   |
|                     | (g) remuneration – the entity shall disclose:  |   |   |
|                     | (i) a description of whether and how climate-related considerations are factored into executive remuneration (see also paragraph 6(a)(v)); and   | P. 20 ESG Governance  | –   |
|                     | (ii) the percentage of executive management remuneration recognised in the current period that is linked to climate-related considerations   |   |   |
| 30                  | In preparing disclosures to meet the requirements in paragraph 29(b)–(d), an entity shall use all reasonable and supportable information that is available to the entity at the reporting date without undue cost or effort.   |   |   |
| 31                  | In preparing disclosures to meet the requirements in paragraph 29(b)–(g), an entity shall refer to paragraphs B64–B65.   |   |   |
| 32                  | An entity shall disclose industry-based metrics that are associated with one or more particular business models, activities or other common features that characterise participation in an industry. In determining the industry-based metrics that the entity discloses, the entity shall refer to and consider the applicability of the industry-based metrics associated with disclosure topics described in the Industry-based Guidance on Implementing IFRS S2. |   |   |

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IFRS S2 Climate-related Disclosures Content Index

| Reference Paragraph   | IFRS Core Content  | References/Explanation                                     |  |
|---|--|--|--|
|   |  | Location in the ESG Report 2024                            | Other References   |
| Climate-related targets   |  |  |  |
| 33  | An entity shall disclose the quantitative and qualitative climate-related targets it has set to monitor progress towards achieving its strategic goals, and any targets it is required to meet by law or regulation, including any greenhouse gas emissions targets. For each target, the entity shall disclose: |  |  |
|   | (a) the metric used to set the target (see paragraphs B66–B67);  | P. 71 Targets and Metrics                                  | P. 26-27 <u>Climate-Related and Nature-Related Directive Guide</u> |
|   | (b) the objective of the target (for example, mitigation, adaptation or conformance with science-based initiatives);   |  |  |
|   | (c) the part of the entity to which the target applies (for example, whether the target applies to the entity in its entirety or only a part of the entity, such as a specific business unit or specific geographical region);   |  |  |
|   | (d) the period over which the target applies;  |  |  |
|   | (e) the base period from which progress is measured;   |  | –  |
|   | (f) any milestones and interim targets;  |  |  |
|   | (g) if the target is quantitative, whether it is an absolute target or an intensity target; and  |  |  |
| (h) how the latest international agreement on climate change, including jurisdictional commitments that arise from that agreement, has informed the target. |  |  |  |
| 34  | An entity shall disclose information about its approach to setting and reviewing each target, and how it monitors progress against each target, including:   |  |  |
|   | (a) whether the target and the methodology for setting the target has been validated by a third party;   | P. 159-161 INDEPENDENT ASSURANCE OPINION STATEMENT         | –  |
|   | (b) the entity's processes for reviewing the target;   | P. 20 ESG Governance                                       |  |
|   | (c) the metrics used to monitor progress towards reaching the target; and  | P. 71 Targets and Metrics                                  |  |
|   | (d) any revisions to the target and an explanation for those revisions.  | No revision has been made to the target.                   |  |
| 35  | An entity shall disclose information about its performance against each climate-related target and an analysis of trends or changes in the entity's performance.   | P. 71 Targets and Metrics<br><br>P. 94 Supplier Management | P. 50-57 <u>Climate-Related and Nature-Related Directive Guide</u> |
| 36  | For each greenhouse gas emissions target disclosed in accordance with paragraphs 33-35, an entity shall disclose:  |  |  |
|   | (a) which greenhouse gases are covered by the target.  | P. 71 Targets and Metrics                                  | –  |
|   | (b) whether Scope 1, Scope 2 or Scope 3 greenhouse gas emissions are covered by the target.  |  |  |
|   | (c) whether the target is a gross greenhouse gas emissions target or net greenhouse gas emissions target. If the entity discloses a net greenhouse gas emissions target, the entity is also required to separately disclose its associated gross greenhouse gas emissions target (see paragraphs B68–B69).       |  |  |
|   | (d) whether the target was derived using a sectoral decarbonisation approach.  |  |  |

| Reference Paragraph | IFRS Core Content  | References/Explanation                                    |                  |
|---------------------|--|---|------------------|
|                     |  | Location in the ESG Report 2024                           | Other References |
|                     | (e) the entity's planned use of carbon credits to offset greenhouse gas emissions to achieve any net greenhouse gas emissions target. In explaining its planned use of carbon credits the entity shall disclose information including, and with reference to paragraphs B70–B71:   | Towngas Smart Energy is preparing for future disclosures. |                  |
|                     | (i) the extent to which, and how, achieving any net greenhouse gas emissions target relies on the use of carbon credits;   |   |                  |
|                     | (ii) which third-party scheme(s) will verify or certify the carbon credits;  |   |                  |
|                     | (iii) the type of carbon credit, including whether the underlying offset will be nature-based or based on technological carbon removals, and whether the underlying offset is achieved through carbon reduction or removal; and  |   |                  |
|                     | (iv) any other factors necessary for users of general purpose financial reports to understand the credibility and integrity of the carbon credits the entity plans to use (for example, assumptions regarding the permanence of the carbon offset).  |   |                  |
| 37                  | In identifying and disclosing the metrics used to set and monitor progress towards reaching a target described in paragraphs 33-34, an entity shall refer to and consider the applicability of cross-industry metrics (see paragraph 29) and industry-based metrics (see paragraph 32), including those described in an applicable IFRS Sustainability Disclosure Standard, or metrics that otherwise satisfy the requirements in IFRS S1. |   |                  |



# Appendix II: Indices for the Report

## Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) Content Index

The Environmental, Social and Governance (ESG) Report 2024 and the [Climate-Related and Nature-Related Directive Guide](#) (the “Guide”) are aligned with the four pillars recommended by the TCFD. Please refer to the table below for more information.

| Recommended Disclosures   | Location in the ESG Report 2024   | Location in the Guide  |
|---|---|--|
| <b>Governance</b>   |   |  |
| Disclose the organisation's governance around climate-related risks and opportunities.  |   |  |
| a) Describe the board's oversight of climate-related risks and opportunities.   | P. 3 Board Statement<br><br>P. 23-31 Risk Management<br><br>P. 66-67 Environmental Management Policies<br><br>P. 67-68 Climate Governance | P. 8-10 Corporate Governance Structure   |
| b) Describe management's role in assessing and managing climate-related risks and opportunities.  | P. 23-25 Risk Management<br><br>P. 66-67 Environmental Management Policies<br><br>P. 67-68 Climate Governance                             | P. 9-11 Corporate Governance Structure   |
| <b>Strategy</b>   |   |  |
| Disclose the actual and potential impacts of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning where such information is material. |   |  |
| a) Describe the climate-related risks and opportunities the organisation has identified over the short, medium, and long-term.  | P. 67-71 Climate Governance   | P. 18-25 Identification, Assessment and Management of Risks and Opportunities                  |
| b) Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning.   | P. 67, 69-71 Climate Governance   | P. 18-25 Identification, Assessment and Management of Risks and Opportunities                  |
| c) Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.                                | P. 68-69 Climate Governance   | P. 12-17 Climate Chapter: TCFD Results and Case Study<br><br>P. 26-29 Decarbonisation Strategy |
| <b>Risk Management</b>  |   |  |
| Disclose how the organisation identifies, assesses, and manages climate-related risks.  |   |  |
| a) Describe the organisation's processes for identifying and assessing climate-related risks.   | P. 35 Stakeholder Engagement<br><br>P. 66 Environmental Management Policies<br><br>P. 67-71 Climate Governance                            | P. 12-24 Climate Chapter: TCFD Results and Case Study  |

| Recommended Disclosures   | Location in the ESG Report 2024  | Location in the Guide   |
|---|--|---|
| b) Describe the organisation's processes for managing climate-related risks.  | P. 66-67 Environmental Management Policies<br><br>P. 67-71 Climate Governance  | P. 12 Climate Chapter: TCFD Results and Case Study<br><br>P. 18-25 Identification, Assessment and Management of Risks and Opportunities |
| c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organisation's overall risk management.  | P. 3 Board Statement<br><br>P. 24 Risk Management<br><br>P. 66-67 Environmental Management Policies<br><br>P. 67-68 Climate Governance | P. 8-11 Corporate Governance Structure  |
| <b>Metrics and Targets</b>  |  |   |
| Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material            |  |   |
| a) Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process. | P. 66-67 Environmental Management Policies<br><br>P. 69-74 Climate Governance  | P. 27 Metrics   |
| b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.   | P. 72-73 Climate Governance<br><br>P. 110 Key Statistics   | P. 26-27 Decarbonisation Strategy   |
| c) Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets.                       | P. 74-77 Climate Actions<br><br>P. 79-82 Collaborative Low-Carbon Development<br><br>P. 83-86 Natural Resources Management             | P. 28-29 Financing Decarbonisation<br><br>P. 50-60 Business Outlook   |

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## GRI Standards Content Index Table

The Environmental, Social and Governance Report (ESG) 2024 was prepared in alignment with the Global Reporting Initiative Content (GRI) Universal Standards 2021 and GRI 11: Oil and Gas Sector Disclosure 2021. Please refer to the table below for detailed information, and to further information available on the website of [Towngas Smart Energy](#) and [its parent company, HKCG](#), as well as within [the Annual Report 2024](#), the Environmental, Social and Governance Report 2024, and the [Climate-Related and Nature-Related Directive Guide](#).

| GRI Standards                   | Disclosure   | Location/URL<br>(Unless otherwise specified, references pertain to the sections of the ESG Report 2024)    | Omission/Remarks   | GRI 11: Oil and Gas Sector 2021 |
|---------------------------------|--|--|--|---------------------------------|
| General Disclosures             |  |  |  |                                 |
| GRI 2: General Disclosures 2021 |  |  |  |                                 |
| 2-1                             | Organisational details   | P. 2 About This Report<br><br>P. 9 Business Overview   | –  | –                               |
| 2-2                             | Entities included in the organisation's sustainability reporting | <a href="#">Annual Report 2024</a>   | –  | –                               |
| 2-3                             | Reporting period, frequency and contact point                    | P. 2 About This Report   | –  | –                               |
| 2-4                             | Restatements of information                                      | P. 102-113 Key Statistics  | –  | –                               |
| 2-5                             | External assurance   | P. 159-161 INDEPENDENT ASSURANCE OPINION STATEMENT   | –  | –                               |
| 2-6                             | Activities, value chain and other business relationships         | P. 9 Business Overview<br><br>P. 92-101 Effective Collaboration – Upgrading the Value Chain                | There are no significant changes in business relationships compared to the previous reporting period.      | –                               |
| 2-7                             | Employees  | P. 42-63 United in Effort – Drawing a Blueprint for a Sustainable Society<br><br>P. 103-107 Key Statistics | No significant fluctuations in the number of employees between the current and previous Reporting Periods. | –                               |
| 2-8                             | Workers who are not employees                                    | P. 42-63 United in Effort – Drawing a Blueprint for a Sustainable Society<br><br>P. 109 Key Statistics     | –  | –                               |
| 2-9                             | Governance structure and composition                             | P. 20 ESG Governance<br><br><a href="#">Annual Report 2024</a>   | –  | –                               |

| GRI Standards | Disclosure  | Location/URL<br>(Unless otherwise specified, references pertain to the sections of the ESG Report 2024)                | Omission/Remarks | GRI 11: Oil and Gas Sector 2021 |
|---------------|---|--|------------------|---------------------------------|
| 2-10          | Nomination and selection of the highest governance body                     | <a href="#">Annual Report 2024</a><br><br><a href="#">Terms of Reference of Nomination Committee</a>                   | –                | –                               |
| 2-11          | Chair of the highest governance body  | P. 20 ESG Governance<br><br><a href="#">List of Directors and their Role and Function</a>                              | –                | –                               |
| 2-12          | Role of the highest governance body in overseeing the management of impacts | P. 3 Board Statement<br><br>P. 20 ESG Governance   | –                | –                               |
| 2-13          | Delegation of responsibility for managing impacts                           | P. 3 Board Statement<br><br>P. 20 ESG Governance   | –                | –                               |
| 2-14          | Role of the highest governance body in sustainability reporting             | P. 20 ESG Governance<br><br><a href="#">Terms of Reference of Environmental, Social and Governance (ESG) Committee</a> | –                | –                               |
| 2-15          | Conflicts of interest   | P. 22 ESG Governance   | –                | –                               |
| 2-16          | Communication of critical concerns  | P. 3 Board Statement<br><br>P. 20-21 ESG Governance  | –                | –                               |
| 2-17          | Collective knowledge of the highest governance body                         | P. 3 Board Statement<br><br>P. 20 ESG Governance   | –                | –                               |
| 2-18          | Evaluation of the performance of the highest governance body                | P. 20-21 ESG Governance  | –                | –                               |
| 2-19          | Remuneration policies   | <a href="#">Annual Report 2024</a><br><br><a href="#">Terms of Reference of Remuneration Committee</a>                 | –                | –                               |
| 2-20          | Process to determine remuneration   | <a href="#">Annual Report 2024</a><br><br><a href="#">Terms of Reference of Remuneration Committee</a>                 | –                | –                               |
| 2-21          | Annual total compensation ratio   | P. 50 Co-Creating a Harmonious Workplace   | –                | –                               |

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GRI Standards Content Index Table

| GRI Standards | Disclosure                                    | Location/URL<br>(Unless otherwise specified, references pertain to the sections of the ESG Report 2024)   | Omission/<br>Remarks | GRI 11: Oil and Gas Sector 2021 |
|---------------|---|---|----------------------|---------------------------------|
| 2-22          | Statement on sustainable development strategy | P. 3 Board Statement<br><br>P. 4-5 Chairman's Statement<br><br>P. 6-7 CEO's Statement   | –                    | –                               |
| 2-23          | Policy commitments                            | P. 22 ESG Governance<br><br>P. 44 United in Effort – Drawing a Blueprint for a Sustainable Society – Management Approach<br><br>P. 66 Towards Carbon Neutral – Initiating the New Green Era – Management Approach<br><br>P. 94 Effective Collaboration – Upgrading the Value Chain – Management Approach<br><br><u>ESG Policies</u> | –                    | –                               |
| 2-24          | Embedding policy commitments                  | P. 22 ESG Governance<br><br>P. 44 United in Effort – Drawing a Blueprint for a Sustainable Society – Management Approach<br><br>P. 66 Towards Carbon Neutral – Initiating the New Green Era – Management Approach<br><br>P. 94 Effective Collaboration – Upgrading the Value Chain – Management Approach<br><br><u>ESG Policies</u> | –                    | –                               |

| GRI Standards | Disclosure   | Location/URL<br>(Unless otherwise specified, references pertain to the sections of the ESG Report 2024)   | Omission/<br>Remarks | GRI 11: Oil and Gas Sector 2021 |
|---------------|--|---|----------------------|---------------------------------|
| 2-25          | Processes to remediate negative impacts            | P. 32 Business Ethics<br><br>P. 44 United in Effort – Drawing a Blueprint for a Sustainable Society – Management Approach<br><br>P. 66 Towards Carbon Neutral – Initiating the New Green Era – Management Approach<br><br>P. 94 Effective Collaboration – Upgrading the Value Chain – Management Approach | –                    | –                               |
| 2-26          | Mechanisms for seeking advice and raising concerns | P. 32 Business Ethics   | –                    | –                               |
| 2-27          | Compliance with laws and regulations               | P. 32 Business Ethics<br><br>P. 44 United in Effort – Drawing a Blueprint for a Sustainable Society – Management Approach<br><br>P. 66 Towards Carbon Neutral – Initiating the New Green Era – Management Approach<br><br>P. 94 Effective Collaboration – Upgrading the Value Chain – Management Approach | –                    | –                               |
| 2-28          | Membership associations                            | P. 79 Collaborative Low-Carbon Development  | –                    | –                               |
| 2-29          | Approach to stakeholder engagement                 | P. 35-36 Stakeholder Engagement<br><br>P. 36-41 Double Materiality Assessment (DMA)   | –                    | –                               |
| 2-30          | Collective bargaining agreements                   | P. 51 Co-Creating a Harmonious Workplace  | –                    | –                               |



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GRI Standards Content Index Table

| GRI Standards                           | Disclosure   | Location/URL<br>(Unless otherwise specified, references pertain to the sections of the ESG Report 2024)   | Omission/<br>Remarks | GRI 11: Oil and Gas Sector 2021 |
|---|--|---|----------------------|---------------------------------|
| Material Topics                         |  |   |                      |                                 |
| GRI 3: Material Topics 2021             |  |   |                      |                                 |
| 3-1                                     | Process to determine material topics   | P. 37 Double Materiality Assessment (DMA)   | –                    | –                               |
| 3-2                                     | List of material topics  | P. 38 Double Materiality Assessment (DMA)   | –                    | –                               |
| Economic                                |  |   |                      |                                 |
| GRI 201: Economic Performance 2016      |  |   |                      |                                 |
| 3-3                                     | Management of material topics  | P. 8 Business Overview  | –                    | 11.14.1                         |
| 201-1                                   | Direct economic value generated and distributed                                | P. 9 Business Profile   | –                    | 11.14.2                         |
|   |  | P. 102 Key Statistics<br><a href="#">Annual Report 2024</a>   | –                    | 11.21.2                         |
| 201-2                                   | Financial implications and other risks and opportunities due to climate change | P. 69-71 Climate Governance<br><br>P. 24-25 <a href="#">Climate-Related and Nature-Related Directive Guide</a>  | –                    | 11.2.2                          |
| 201-4                                   | Financial assistance received from government                                  | <a href="#">Annual Report 2024</a>  | –                    | 11.21.3                         |
| GRI 202: Market Presence 2016           |  |   |                      |                                 |
| 3-3                                     | Management of material topics  | P. 8-9 Business Overview  | –                    | 11.14.1                         |
| 202-1                                   | Ratios of standard entry-level wage by gender compared to local minimum wage   | Towngas Smart Energy is preparing for future disclosure.  | –                    | –                               |
| 202-2                                   | Proportion of senior management hired from the local community                 | P. 50 Co-Creating a Harmonious Workplace  | –                    | 11.14.3                         |
| GRI 203: Indirect Economic Impacts 2016 |  |   |                      |                                 |
| 3-3                                     | Management of material topics  | P. 44 United in Effort – Drawing a Blueprint for a Sustainable Society – Management Approach<br><br>P. 66 Towards Carbon Neutral – Initiating the New Green Era – Management Approach | –                    | 11.14.1                         |

| GRI Standards                           | Disclosure   | Location/URL<br>(Unless otherwise specified, references pertain to the sections of the ESG Report 2024) | Omission/<br>Remarks | GRI 11: Oil and Gas Sector 2021 |
|---|--|---|----------------------|---------------------------------|
| 203-1                                   | Infrastructure investments and services supported                                | P. 44 Building Safety Lines of Defence  | –                    | 11.14.4                         |
|   |  | P. 58-61 Caring for the Community   | –                    | –                               |
|   |  | P. 74-77 Climate Actions  | –                    | –                               |
|   |  | P. 79-82 Collaborative Low-Carbon Development   | –                    | –                               |
| 203-2                                   | Significant indirect economic impacts  | P. 58-61 Caring for the Community   | –                    | 11.14.5                         |
| GRI 204: Procurement Practices 2016     |  |   |                      |                                 |
| 3-3                                     | Management of material topics  | P. 94 Effective Collaboration – Upgrading the Value Chain – Management Approach                         | –                    | 11.14.1                         |
| 204-1                                   | Proportion of spending on local suppliers  | P. 109 Key Statistics   | –                    | 11.14.6                         |
| GRI 205: Anti-corruption 2016           |  |   |                      |                                 |
| 3-3                                     | Management of material topics  | P. 32 Business Ethics   | –                    | 11.20.1                         |
| 205-1                                   | Operations assessed for risks related to corruption                              | P. 32 Business Ethics   | –                    | 11.20.2                         |
| 205-2                                   | Communication and training about anti-corruption policies and procedures         | P. 32-33 Business Ethics<br><br>P. 106 Key Statistics   | –                    | 11.20.3                         |
| 205-3                                   | Confirmed incidents of corruption and actions taken                              | P. 32-33 Business Ethics<br><br>P. 106 Key Statistics   | –                    | 11.20.4                         |
| GRI 206: Anti-competitive Behavior 2016 |  |   |                      |                                 |
| 3-3                                     | Management of material topics  | P. 32 Business Ethics   | –                    | 11.19.1                         |
| 206-1                                   | Legal actions for anti-competitive behaviour, anti-trust, and monopoly practices | P. 32 Business Ethics   | –                    | 11.19.2                         |
| GRI 207: Tax 2019                       |  |   |                      |                                 |
| 3-3                                     | Management of material topics  | <a href="#">Annual Report 2024</a>  | –                    | 11.21.1                         |
| 207-1                                   | Approach to tax  | <a href="#">Annual Report 2024</a>  | –                    | 11.21.4                         |
| 207-2                                   | Tax governance, control, and risk management                                     | <a href="#">Annual Report 2024</a>  | –                    | 11.21.5                         |
| 207-3                                   | Stakeholder engagement and management of concerns related to tax                 | <a href="#">Annual Report 2024</a>  | –                    | 11.21.6                         |
| 207-4                                   | Country-by-country reporting   | <a href="#">Annual Report 2024</a>  | –                    | 11.21.7                         |

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| GRI Standards                     |  | Location/URL<br>(Unless otherwise specified, references pertain to the sections of the ESG Report 2024) | Omission/<br>Remarks | GRI 11: Oil and Gas Sector 2021 |
|-----------------------------------|--|---|----------------------|---------------------------------|
| Environmental                     |  |   |                      |                                 |
| GRI 301: Materials 2016           |  |   |                      |                                 |
| 3-3                               | Management of material topics                              | P. 85 Natural Resources Management  | –                    | –                               |
| 301-1                             | Materials used by weight or volume                         | P. 111 Key Statistics   | –                    | –                               |
| 301-2                             | Recycled input materials used                              | P. 85 Natural Resources Management<br><br>P. 111 Key Statistics   | –                    | –                               |
| GRI 302: Energy 2016              |  |   |                      |                                 |
| 3-3                               | Management of material topics                              | P. 83 Natural Resources Management  | –                    | 11.1.1                          |
| 302-1                             | Energy consumption within the organisation                 | P. 83 Natural Resources Management<br><br>P. 111 Key Statistics   | –                    | 11.1.2                          |
| 302-2                             | Energy consumption outside of the organisation             | Towngas Smart Energy is preparing for future disclosure.  | –                    | 11.1.3                          |
| 302-3                             | Energy intensity   | P. 83 Natural Resources Management<br><br>P. 111 Key Statistics   | –                    | 11.1.4                          |
| 302-4                             | Reduction of energy consumption                            | P. 75-77 Climate Actions<br><br>P. 83 Natural Resources Management                                      | –                    | –                               |
| 302-5                             | Reductions in energy requirements of products and services | P. 75-77 Climate Actions<br><br>P. 83 Natural Resources Management                                      | –                    | –                               |
| GRI 303: Water and Effluents 2018 |  |   |                      |                                 |
| 3-3                               | Management of material topics                              | P. 84 Natural Resources Management  | –                    | 11.6.1                          |
| 303-1                             | Interactions with water as a shared resource               | P. 84 Natural Resources Management  | –                    | 11.6.2                          |
| 303-2                             | Management of water discharge-related impacts              | P. 84 Natural Resources Management  | –                    | 11.6.3                          |
| 303-3                             | Water withdrawal   | P. 111 Key Statistics   | –                    | 11.6.4                          |
| 303-4                             | Water discharge  | P. 84 Natural Resources Management  | –                    | 11.6.5                          |
| 303-5                             | Water consumption  | P. 84 Natural Resources Management  | –                    | 11.6.6                          |

| GRI Standards              |   | Location/URL<br>(Unless otherwise specified, references pertain to the sections of the ESG Report 2024)   | Omission/<br>Remarks  | GRI 11: Oil and Gas Sector 2021    |
|----------------------------|---|---|---|------------------------------------|
| GRI 304: Biodiversity 2016 |   |   |   |                                    |
| 3-3                        | Management of material topics   | P. 87-88 Protecting Natural Capital and Biodiversity<br><br>P. 30-49 Climate-Related and Nature-Related Directive Guide   | –   | 11.4.1                             |
| 304-1                      | Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas | P. 87 Protecting Natural Capital and Biodiversity<br><br>P. 35-39 Climate-Related and Nature-Related Directive Guide  | –   | 11.4.2                             |
| 304-2                      | Significant impacts of activities, products and services on biodiversity  | P. 87 Protecting Natural Capital and Biodiversity<br><br>P. 37-47 Climate-Related and Nature-Related Directive Guide  | –   | 11.4.3                             |
| 304-3                      | Habitats protected or restored  | P. 87 Protecting Natural Capital and Biodiversity<br><br>P. 90-91 Case Study: Biodiversity and New Energies Symposium Creating a Green Future Together<br><br>P. 35-39 Climate-Related and Nature-Related Directive Guide | –   | 11.4.4                             |
| 304-4                      | IUCN Red List species and national conservation list species with habitats in areas affected by operations                                | P. 87 Protecting Natural Capital and Biodiversity<br><br>P. 36-39 Climate-Related and Nature-Related Directive Guide  | –   | 11.4.5                             |
| GRI 305: Emissions 2016    |   |   |   |                                    |
| 3-3                        | Management of material topics   | P. 67-74 Climate Governance<br><br>P. 78 Gas Leakage Management   | –   | 11.1.1<br><br>11.2.1<br><br>11.3.1 |
| 305-1                      | Direct (Scope 1) GHG emissions  | P. 72 Climate Governance<br><br>P. 110 Key Statistics   | All CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O, HFCs, PFCs, SF <sub>6</sub> , NF <sub>3</sub> are covered in the calculation. | 11.1.5                             |
| 305-2                      | Energy indirect (Scope 2) GHG emissions   | P. 72 Climate Governance<br><br>P. 110 Key Statistics   | All CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O, HFCs, PFCs, SF <sub>6</sub> , NF <sub>3</sub> are covered in the calculation. | 11.1.6                             |

Appendix II: Indices for the Report  
GRI Standards Content Index Table

| GRI Standards       | Disclosure   | Location/URL<br>(Unless otherwise specified, references pertain to the sections of the ESG Report 2024) | Omission/<br>Remarks  | GRI 11: Oil and Gas Sector 2021 |
|---------------------|--|---|---|---------------------------------|
| 305-3               | Other indirect (Scope 3) GHG emissions   | P. 73 Climate Governance<br><br>P. 110 Key Statistics   | –   | 11.1.7                          |
| 305-4               | GHG emissions intensity  | P. 72 Climate Governance<br><br>P. 110 Key Statistics   | All CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O, HFCs, PFCs, SF <sub>6</sub> , NF <sub>3</sub> are covered in the calculation. Scope 1 and 2 of GHG emissions are included in the intensity ratio. | 11.1.8                          |
| 305-5               | Reduction of GHG emissions   | P. 74-77 Climate Actions<br><br>P. 78 Gas Leakage Management  | –   | 11.2.3                          |
| 305-6               | Emissions of ozone-depleting substances (ODS)  | P. 111 Key Statistics   | –   | –                               |
| 305-7               | Nitrogen oxides (NO <sub>x</sub> ), sulphur oxides (SO <sub>x</sub> ), and other significant air emissions | P. 111 Key Statistics   | –   | 11.3.2                          |
| GRI 306: Waste 2020 |  |   |   |                                 |
| 3-3                 | Management of material topics  | P. 85 Natural Resources Management  | –   | 11.5.1                          |
| 306-1               | Waste generation and significant waste-related impacts   | P. 85 Natural Resources Management  | –   | 11.5.2                          |
| 306-2               | Management of significant waste-related impacts  | P. 85 Natural Resources Management  | –   | 11.5.3                          |
| 306-3               | Waste generated  | P. 85-86 Natural Resources Management<br><br>P. 111 Key Statistics                                      | –   | 11.5.4                          |
| 306-4               | Waste diverted from disposal   | P. 85-86 Natural Resources Management<br><br>P. 111 Key Statistics                                      | –   | 11.5.5                          |
| 306-5               | Waste directed to disposal   | P. 85-86 Natural Resources Management<br><br>P. 111 Key Statistics                                      | –   | 11.5.6                          |

| GRI Standards                                   | Disclosure   | Location/URL<br>(Unless otherwise specified, references pertain to the sections of the ESG Report 2024) | Omission/<br>Remarks | GRI 11: Oil and Gas Sector 2021 |
|---|--|---|----------------------|---------------------------------|
| GRI 308: Supplier Environmental Assessment 2016 |  |   |                      |                                 |
| 3-3   | Management of material topics  | P. 94-97 Supplier Management  | –                    | –                               |
| 308-1   | New suppliers that were screened using environmental criteria                                      | P. 96 Supplier Management   | –                    | –                               |
| 308-2   | Negative environmental impacts in the supply chain and actions taken                               | P. 95 Supplier Management   | –                    | –                               |
| Social  |  |   |                      |                                 |
| GRI 401: Employment 2016                        |  |   |                      |                                 |
| 3-3   | Management of material topics  | P. 50-51 Co-Creating a Harmonious Workplace   | –                    | 11.10.1<br>11.11.1              |
| 401-1   | New employee hires and employee turnover   | P. 104-106 Key Statistics   | –                    | 11.10.2                         |
| 401-2   | Benefits provided to full-time employees that are not provided to temporary or part-time employees | P. 52-53 Co-Creating a Harmonious Workplace   | –                    | 11.10.3                         |
| 401-3   | Parental leave   | P. 52 Co-Creating a Harmonious Workplace<br><br>P. 107 Key Statistics                                   | –                    | 11.10.4                         |
| GRI 402: Labour/Management Relations 2016       |  |   |                      |                                 |
| 3-3   | Management of material topics  | P. 51 Co-Creating a Harmonious Workplace  | –                    | 11.10.1                         |
| 402-1   | Minimum notice periods regarding operational changes   | Towngas Smart Energy is preparing for future disclosure.  | –                    | 11.10.5                         |
| GRI 403: Occupational Health and Safety 2018    |  |   |                      |                                 |
| 3-3   | Management of material topics  | P. 46-48 Building Safety Lines of Defence   | –                    | 11.9.1                          |
| 403-1   | Occupational health and safety management system   | P. 46 Building Safety Lines of Defence  | –                    | 11.9.2                          |
| 403-2   | Hazard identification, risk assessment, and incident investigation                                 | P. 46 Building Safety Lines of Defence  | –                    | 11.9.3                          |
| 403-3   | Occupational health services   | P. 47 Building Safety Lines of Defence<br><br>P. 52-53 Co-Creating a Harmonious Workplace               | –                    | 11.9.4                          |



Appendix II: Indices for the Report

GRI Standards Content Index Table

| GRI Standards                        | Disclosure  | Location/URL<br>(Unless otherwise specified, references pertain to the sections of the ESG Report 2024) | Omission/<br>Remarks   | GRI 11: Oil and Gas Sector 2021 |
|--------------------------------------|---|---|--|---------------------------------|
| 403-4                                | Worker participation, consultation and communication on occupational health and safety                        | P. 47-48 Building Safety Lines of Defence<br><br>P. 52-53 Co-Creating a Harmonious Workplace            | –  | 11.9.5                          |
| 403-5                                | Worker training on occupational health and safety   | P. 47 Building Safety Lines of Defence  | –  | 11.9.6                          |
| 403-6                                | Promotion of worker health  | P. 47-48 Building Safety Lines of Defence   | –  | 11.9.7                          |
| 403-7                                | Prevention and mitigation of occupational health and safety impacts directly linked by business relationships | P. 47-48 Building Safety Lines of Defence<br><br>P. 52-53 Co-Creating a Harmonious Workplace            | –  | 11.9.8                          |
| 403-8                                | Workers covered by an occupational health and safety management system  | P. 46-47 Building Safety Lines of Defence   | Workers including contractors are covered by occupational safety and health management system. | 11.9.9                          |
| 403-9                                | Work-related injuries   | P. 47 Building Safety Lines of Defence<br><br>P. 108 Key Statistics                                     | –  | 11.9.10                         |
| 403-10                               | Work-related ill health   | P. 47 Building Safety Lines of Defence<br><br>P. 108 Key Statistics                                     | –  | 11.9.11                         |
| GRI 404: Training and Education 2016 |   |   |  |                                 |
| 3-3                                  | Management of material topics   | P. 54-57 Co-Creating a Harmonious Workplace   | –  | 11.10.1<br>11.11.1              |
| 404-1                                | Average hours of training per year per employee   | P. 54 Co-Creating a Harmonious Workplace  | –  | 11.10.6<br>11.11.4              |
| 404-2                                | Programmes for upgrading employee skills and transition assistance programmes                                 | P. 54-57 Co-Creating a Harmonious Workplace   | –  | 11.10.7                         |
| 404-3                                | Percentage of employees receiving regular performance and career development reviews                          | P. 50 Co-Creating a Harmonious Workplace<br><br>P. 106 Key Statistics                                   | –  | 11.10.7                         |

| GRI Standards  | Disclosure   | Location/URL<br>(Unless otherwise specified, references pertain to the sections of the ESG Report 2024) | Omission/<br>Remarks                                    | GRI 11: Oil and Gas Sector 2021 |
|--|--|---|---|---------------------------------|
| GRI 405: Diversity and Equal Opportunity 2016                  |  |   |   |                                 |
| 3-3  | Management of material topics  | P. 51 Co-Creating a Harmonious Workplace  | –   | 11.11.1                         |
| 405-1  | Diversity of governance bodies and employees   | P. 51 Co-Creating a Harmonious Workplace  | –   | 11.11.5                         |
|  |  | P. 107 Key Statistics   |   |                                 |
| 405-2  | Ratio of base salary and remuneration of women to men  | P. 50 Co-Creating a Harmonious Workplace  | –   | 11.11.6                         |
|  |  | P. 107 Key Statistics   |   |                                 |
| GRI 406: Non-discrimination 2016                               |  |   |   |                                 |
| 3-3  | Management of material topics  | P. 32 Business Ethics   | –   | 11.11.1                         |
|  |  | P. 51 Co-Creating a Harmonious Workplace  |   |                                 |
| 406-1  | Incidents of discrimination and corrective actions taken   | P. 32 Business Ethics   | No recorded incident of discrimination during the year. | 11.11.7                         |
|  |  | P. 51 Co-Creating a Harmonious Workplace  |   |                                 |
|  |  | <u>Anti-Discrimination Policy</u>   |   |                                 |
| GRI 407: Freedom of Association and Collective Bargaining 2016 |  |   |   |                                 |
| 3-3  | Management of material topics  | P. 51 Co-Creating a Harmonious Workplace  | –   | 11.13.1                         |
| 407-1  | Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk | P. 51 Co-Creating a Harmonious Workplace  | –   | 11.13.2                         |
| GRI 408: Child Labour 2016                                     |  |   |   |                                 |
| 3-3  | Management of material topics  | P. 32 Business Ethics   | –   |                                 |
|  |  | P. 51 Co-Creating a Harmonious Workplace  |   |                                 |
| 408-1  | Operations and suppliers at significant risk for incidents of child labour                                     | P. 32 Business Ethics   | –   |                                 |
|  |  | P. 51 Co-Creating a Harmonious Workplace  |   |                                 |

Appendix II: Indices for the Report

GRI Standards Content Index Table

| GRI Standards                             |  | Disclosure   |  | Location/URL<br>(Unless otherwise specified, references pertain to the sections of the ESG Report 2024) | Omission/<br>Remarks | GRI 11: Oil and Gas Sector 2021 |
|---|--|--|--|---|----------------------|---------------------------------|
| GRI 409: Forced or Compulsory Labour 2016 |  |  |  |   |                      |                                 |
| 3-3                                       | Management of material topics  | P. 32 Business Ethics  | –  |   | 11.12.1              |                                 |
|   |  | P. 51 Co-Creating a Harmonious Workplace   |  |   |                      |                                 |
| 409-1                                     | Operations and suppliers at significant risk for incidents of forced or compulsory labour  | P. 32 Business Ethics  | –  |   | 11.12.2              |                                 |
|   |  | P. 51 Co-Creating a Harmonious Workplace   |  |   |                      |                                 |
| GRI 410: Security Practices 2016          |  |  |  |   |                      |                                 |
| 3-3                                       | Management of material topics  | Towngas Smart Energy is preparing for future disclosure.                           | –  |   | 11.18.1              |                                 |
| 410-1                                     | Security personnel trained in human rights policies or procedures                          | Towngas Smart Energy is preparing for future disclosure.                           | –  |   | 11.18.2              |                                 |
| GRI 413: Local Communities 2016           |  |  |  |   |                      |                                 |
| 3-3                                       | Management of material topics  | P. 58-61 Caring for the Community  | –  |   | 11.15.1              |                                 |
| 413-1                                     | Operations with local community engagement, impact assessments, and development programmes | P. 58-61 Caring for the Community  | –  |   | 11.15.2              |                                 |
|   |  | P. 109 Key Statistics  |  |   |                      |                                 |
| 413-2                                     | Operations with significant actual and potential negative impacts on local communities     | –  | No actual and potential negative impacts on local communities were recorded. |   | 11.15.3              |                                 |
| GRI 414: Supplier Social Assessment 2016  |  |  |  |   |                      |                                 |
| 3-3                                       | Management of material topics  | P. 94-96 Effective Collaboration – Upgrading the Value Chain – Governance Approach | –  |   | 11.10.1              |                                 |
| 414-1                                     | New suppliers that were screened using social criteria                                     | P. 96 Supplier Management  | –  |   | 11.10.8<br>11.12.3   |                                 |
| 414-2                                     | Negative social impacts in the supply chain and actions taken                              | P. 96 Supplier Management  | –  |   | 11.10.9              |                                 |
| GRI 415: Public Policy 2016               |  |  |  |   |                      |                                 |
| 3-3                                       | Management of material topics  | <u>Stakeholder Engagement Policy</u>   | –  |   | 11.22.1              |                                 |
| 415-1                                     | Political contributions  | P. 58-61 Caring for the Community  | –  |   | 11.22.2              |                                 |

| GRI Standards  |   | Disclosure |  | Location/URL<br>(Unless otherwise specified, references pertain to the sections of the ESG Report 2024) | Omission/<br>Remarks             | GRI 11: Oil and Gas Sector 2021 |
|--|---|------------|--|---|----------------------------------|---------------------------------|
| GRI 416: Customer Health and Safety 2016                   |   |            |  |   |                                  |                                 |
| 3-3  | Management of material topics   |            |  | P. 98-99 Customer Service Management  | –                                | 11.3.1                          |
| 416-1  | Assessment of the health and safety impacts of product and service categories                 |            |  | P. 48-49 Building Safety Lines of Defence<br><br>P. 98-99 Customer Service Management                   | –                                | 11.3.3                          |
| 416-2  | Incidents of non-compliance concerning the health and safety impacts of products and services |            |  | P. 32 Business Ethics   | –                                | –                               |
| GRI 417: Marketing and Labelling 2016                      |   |            |  |   |                                  |                                 |
| 3-3  | Management of material topics   |            |  | P. 98-99 Customer Service Management  | –                                | –                               |
| 417-1  | Requirements for product and service information and labelling                                |            |  | P. 32 Business Ethics<br><br>P. 98-99 Customer Service Management                                       | –                                | –                               |
| 417-2  | Incidents of non-compliance concerning product and service information and labelling          |            |  | P. 32 Business Ethics   | –                                | –                               |
| 417-3  | Incidents of non-compliance concerning marketing communications                               |            |  | P. 32 Business Ethics   | –                                | –                               |
| GRI 418: Customer Privacy 2016                             |   |            |  |   |                                  |                                 |
| 3-3  | Management of material topics   |            |  | P.33-34 Data Privacy and Cybersecurity<br><br><u>Information Security Policy</u>                        | –                                | –                               |
| 418-1  | Substantiated complaints concerning breaches of customer privacy and losses of customer data  |            |  | –   | No relevant cases were recorded. | –                               |
| GRI 11.8: Asset integrity and critical incident management |   |            |  |   |                                  |                                 |
| 3-3  | Management of material topics   |            |  | P. 44-45 Building Safety Lines of Defence   | –                                | 11.8.1                          |
| 306-3  | Significant Spills  |            |  | P. 44-45 Building Safety Lines of Defence<br><br>P. 78 Gas Leakage Management                           | –                                | 11.8.2                          |

# Appendix II: Indices for the Report

## Sustainability Accounting Standards Board (SASB) Sustainability Accounting Standard for the Gas Utilities & Distributors Sector Content Index

This content index is based on the Sustainability Accounting Standards Board (SASB) Standard for the Gas Utilities & Distributors sector. Please refer to the table below for detailed information, and consult the related detailed information available through the Environmental, Social and Governance Report 2024.

| TOPIC                                      | Code         | Metric  | Location in the ESG Report 2024   |
|--|--------------|---|---|
| Sustainability Disclosure Topics & Metrics |              |   |   |
| Energy Affordability                       | IF-GU-240a.1 | Average retail gas rate for (1) residential, (2) commercial, (3) industrial customers, and (4) transportation services only                             | –   |
|  | IF-GU-240a.3 | (1) Number of residential customer gas disconnections for non-payment, (2) percentage reconnected within 30 days  | –   |
|  | IF-GU-240a.4 | Discussion of impact of external factors on customer affordability of gas, including the economic conditions of the service territory                   | –   |
| End-Use Efficiency                         | IF-GU-420a.2 | Customer gas savings from efficiency measures, by market  | –   |
| Integrity of Gas Delivery Infrastructure   | IF-GU-540a.1 | Number of (1) reportable pipeline incidents, (2) corrective actions received and (3) violations of pipeline safety statutes                             | –   |
|  | IF-GU-540a.2 | Percentage of distribution pipeline that is (1) cast or wrought iron and (2) unprotected steel  | –   |
|  | IF-GU-540a.3 | Percentage of gas (1) transmission and (2) distribution pipelines inspected   | –   |
|  | IF-GU-540a.4 | Description of efforts to manage the integrity of gas delivery infrastructure, including risks related to safety and emissions                          | P. 44-49 Building Safety Lines of Defence<br><br>P. 78 Gas Leakage Management |
| Activity Metrics                           |              |   |   |
|  | IF-GU-000.A  | Number of: (1) residential, (2) commercial, and (3) industrial customers served   | –   |
|  | IF-GU-000.B  | Amount of natural gas delivered to: (1) residential customers, (2) commercial customers, (3) industrial customers, and (4) transferred to a third party | –   |
|  | IF-GU-000.C  | Length of gas (1) transmission and (2) distribution pipelines   | P. 102 Key Statistics   |

# Verification Statement



## INDEPENDENT ASSURANCE OPINION STATEMENT

**Statement No: SRA-HK-824017-001**

**Towngas Smart Energy Company Limited**

**Environmental, Social, and Governance ("ESG") Report 2024**

The British Standards Institution is independent of Towngas Smart Energy Company Limited and its subsidiaries (hereinafter referred to as "Towngas Smart Energy" collectively in this statement) and has no financial interest in the operation of Towngas Smart Energy other than for the assessment and assurance of Towngas Smart Energy Environmental, Social, and Governance Report 2024 (the "Report").

This independent assurance opinion statement is prepared on the basis of review by the British Standards Institution of the Report presented by Towngas Smart Energy. The review does not extend beyond such information and is solely based on it. In performing such review, the British Standards Institution has assumed that all such information is complete and adequate.


- Scope**
- The scope of engagement agreed upon with Towngas Smart Energy includes the following:
- The assurance scope is consistent with the description of the Report. The Report is prepared in accordance with the Appendix C2: ESG Reporting Guide under Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited ("SEHK"), and the Global Reporting Initiative ("GRI") Universal Standard 2021, with reference to the International Sustainability Standards Board's ("ISSB") IFRS<sup>®</sup> Sustainability Disclosure Standards – IFRS S1 General Requirements for Disclosure of Sustainability-related Financial Information ("IFRS S1") and IFRS S2 Climate-related Disclosures ("IFRS S2"), Sustainability Accounting Standards Board ("SASB") Standards for the Gas Utilities & Distributors sector, the Recommendations of the Task Force on Climate-related Financial Disclosures ("TCFD"), Recommendations of the Taskforce on Nature-related Financial Disclosures ("TNFD"), GRI 11: Oil and Gas Sector Disclosure 2021, China Enterprise Reform and Development Society and CSR Cloud Research Institute ("責任雲研究院") Guidelines on Corporate Social Responsibility Reporting for Chinese Enterprises ("CASS-ESG 6.0") and ISO 26000 Guidance on Social Responsibility of the International Organisation for Standardisation.
  - In accordance with Type 2 High Level of Assurance as defined in the AA1000 Assurance Standard V3 ("AA1000AS V3"), BSI evaluates the nature and extent of Towngas Smart Energy's adherence to the four reporting principles of Inclusivity, Materiality, Responsiveness and Impact in preparing the Report. The reliability of specified sustainability performance information and data disclosed in the Report has also been evaluated.

**Opinion Statement**

We conclude that the Report provides a fair view of Towngas Smart Energy's sustainability plan and performance in the reporting year. The Report subject to assurance is free from material misstatement based upon evaluation within the limitations of the scope of the assurance, the information and data provided by Towngas Smart Energy and the samples taken. Based on our work carried out during the assurance process, we believe that data and information stated in the Reporting Organization's Report is correctly presented and that Inclusivity, Materiality, Responsiveness and Impact based on AA1000 criteria are correctly addressed. We believe that the environmental, social and governance general disclosures and key performance indicators are fairly represented in the Report, in which Towngas Smart Energy's efforts to pursue sustainable development are recognized by its stakeholders.

Our work was carried out by a team of sustainability report assurors in accordance with the AA1000AS V3. We planned and performed this part of our work to obtain the necessary information and explanations. We considered Towngas Smart Energy has provided sufficient evidence to support its self-declaration of compliance with the Appendix C2: ESG Reporting Guide under Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited ("SEHK"), and GRI Universal Standard 2021, with reference to IFRS S1 and IFRS S2, SASB Standards for the Gas Utilities & Distributors sector, the Recommendations of the TCFD, Recommendations of the TNFD, GRI 11: Oil and Gas Sector Disclosure 2021, CASS-ESG 6.0 and ISO 26000 is fairly stated and the Report is considered acceptable in meeting the principles as set out in AA1000 AccountAbility Principles 2018 ("AA1000AP (2018)").

For and behalf of BSI:



Michael Lam, Senior Vice President, APAC Assurance



...making excellence a habit.™

Issue Date: 2025-04-01      Effective Date: 2025-04-01



Verification Statement

Statement No: SRA-HK-824017-001

Methodology

- Our work was designed to gather evidence on which to base our conclusion. We undertook the following activities:
- A top level review of issues raised by external parties that could be relevant to Towngas Smart Energy's policies to provide a check on the appropriateness of statements made in the Report.
  - Discussion with staff on Towngas Smart Energy's approach to stakeholder engagement. We had no direct contact with external stakeholders during this assurance process.
  - Interview with staff involved in ESG management, report preparation and provision of report information.
  - Review of key organizational developments.
  - Review of supporting evidence for claims made in the Report, and
  - An assessment of Towngas Smart Energy's reporting and management processes concerning reporting against the principles of Inclusivity, Materiality, Responsiveness and Impact as described in the AA1000AP (2018).

Conclusions

A review of the Report issued by Towngas Smart Energy against the AA1000AS V3 principles of Inclusivity, Materiality, Responsiveness and Impact, and the GRI Universal Standard 2021, as well as the Appendix C2: ESG Reporting Guide under Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited ("SEHK") is set out below:

Based on the procedures performed and evidence obtained, we believe that data and information stated in the Reporting Organization's Report is correctly presented and that Inclusivity, Materiality, Responsiveness and Impact based on AA1000 criteria are correctly addressed.

Although BSI reviews all 2024 ESG data indicators within our Sustainability Data Transparency Index ("SDTI") as part of our assurance process, specific attention and further review was paid to the following data points:

|   |  |
|---|--|
| Energy Consumption                      | Diesel, Natural Gas, LPG, Unleaded Petrol, Electricity, and Total Energy Consumption   |
| Waste Disposal                          | Non-hazardous waste<br>Hazardous waste   |
| Water Withdrawal                        | Water withdrawal - from municipal water suppliers  |
| Air Emissions                           | NO <sub>x</sub> emissions, SO <sub>x</sub> emissions and Respirable suspended particulates (PM10)                                    |
| Greenhouse Gas ("GHG") Emissions        | Direct GHG emissions (Scope 1), Indirect GHG emissions (Scope 2 and Scope 3) (Group Level), and Carbon Intensity (City-gas Business) |
| Number of Employees                     | Full time (by gender, age, employee category, region)  |
| Gender Pay Ratio                        | Base salary by employee category   |
| Gender Ratio                            | By employee category   |
| Fatalities                              | Employees and contractors  |
| Lost-Time Injury Frequency Rate (LTIFR) | Employees and contractors  |
| Critical Tier-1 supplier                | Number and percentage of total purchased amount  |
| Supplier Screening                      | Percentage of new suppliers that were screened using ESG criteria (in terms of total purchased amount)                               |
| Supplier Assessment and Development     | Percentage of critical tier-1 supplier used S-carbon platform (in terms of total purchased amount)                                   |

We considered Towngas Smart Energy has provided sufficient evidence that its self-declaration of compliance with GRI Universal Standard 2021, as well as the Appendix C2: ESG Reporting Guide under Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited ("SEHK"), with reference to IFRS S1 and IFRS S2, SASB Standards for the Gas Utilities & Distributors sector, the Recommendations of the TCFD, Recommendations of the TNFD, GRI 11: Oil and Gas Sector Disclosure 2021, CASS-ESG 6.0 and ISO 26000 is fairly stated and the Report is considered acceptable in meeting the principles as set out in AA1000AP (2018).

Issue Date: 2025-04-01

Effective Date: 2025-04-01

Statement No: SRA-HK-824017-001

Assurance Level

The Type 2 High Level of Assurance provided in our review is defined by the scope and methodology described in this statement.

Responsibilities

It is the responsibility of Towngas Smart Energy's senior management to ensure that the information being presented in the Report is accurate. Our responsibility is to provide an independent assurance opinion statement to stakeholders giving our professional opinion based on the scope and methodology described.

Ability and Independence

The assurance team was composed of Lead Assuror and Assuror, who are experienced in the industrial sector, and trained in a range of sustainability, environmental and social standards including GRI Series Standards, AA1000, HKEX Environmental, Social and Governance Reporting Guide, ISO 14064, ISO 14001, ISO 50001, ISO 45001, ISO 9001, etc.

British Standards Institution is a leading global standards and assessment body founded in 1901. The assurance is carried out in line with the BSI Fair Trading Code of Practice.





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