

THE HONG KONG AND CHINA GAS COMPANY LIMITED GREEN BOND FRAMEWORK

SECOND-PARTY OPINION BY SUSTAINALYTICS

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1. INTRODUCTION

The Hong Kong and China Gas Company Limited (“Hong Kong and China Gas”, commonly known as “Towngas Group”) engages in the production, distribution and marketing of gas in Hong Kong and Mainland China. The company also acts as a piped city-gas operator and serves 21 million residential, commercial and industrial customers. Hong Kong and China Gas operates LPG filling stations, landfill gas utilization projects, aviation fuel storage facility and onshore oil field projects, with a more recent focus on the development of new energy projects covering resource exploitation, liquefaction of coalbed methane, coal-based chemicals and biomass energies. Hong Kong and China Gas also operates as a utility contractor for water, drainage, sewerage, electricity and telecommunications projects. The company was founded in 1862 and it is based in North Point, Hong Kong.

Hong Kong and China Gas has developed a Green Bond Framework¹ (the “Hong Kong and China Gas Green Bond Framework”) under which it will issue a green bond and use the proceeds to finance and/or refinance expenditures related to non-fossil fuel energy investments in the following areas: (i) landfill gas projects; (ii) biomass waste-to-energy projects, (iii) waste treatment projects; (iv) wastewater treatment projects; and (v) any other eligible projects targeting the production of energy from renewable or sustainable sources and/or improvements in the energy efficiency of the company’s non-fossil fuel operations.

Hong Kong and China Gas has engaged Sustainalytics to provide a second opinion on its framework and the framework’s environmental credentials. As part of this engagement, Sustainalytics held conversations with various members of Hong Kong and China Gas’ management team to understand the sustainability impact of their business processes and planned use of proceeds, as well as the management of proceeds and reporting aspects of the issuer’s green bond framework. Sustainalytics also reviewed relevant public documents and non-public information.

This document contains Sustainalytics’ opinion on the Hong Kong and China Gas Green Bond Framework and should be read in conjunction with that framework.

¹ Available at <http://www.towngas.com/en/Green-Bond/towngas-green-bond-framework>

2. SUSTAINALYTICS' OPINION

Section 1: Sustainalytics' Opinion on the Hong Kong and China Gas Green Bond Framework

Summary

Overall, Sustainalytics is of the opinion that the Hong Kong and China Gas Green Bond Framework is transparent and robust and aligns with four pillars of the Green Bond Principles 2017.² Some considerations for this assessment include:

- Sustainalytics is of the opinion that, although Hong Kong and China Gas is a fossil-fuel based company, it has demonstrated an intention to transition away from less-brown fossil-fuel sources (such as natural gas) to a waste-to-energy approach. In Sustainalytics' view, such a transition could be strengthened by adding quantitative and timebound targets with respect to the percentage of its electricity production that it generates from non-fossil fuel sources. Given that the Hong Kong and China Gas Green Bond Framework does not finance any fossil-fuel operations, Sustainalytics is of the opinion that the Hong Kong and China Gas Green Bond Framework contributes to the company's signalled intention to transition towards non-fossil-fuel-based energy production. See Section 2 for more details.
- Waste Treatment, Waste-To-Energy projects, Wastewater Treatment, along with Renewable Energy and non-fossil-fuel-based Energy Efficiency projects, are recognized by the Green Bond Principles as categories with clear environmental benefits. Given that proceeds from the Hong Kong and China Gas Green Bond Framework will not be directed towards fossil-fuel-reliant operations or projects, Sustainalytics views these projects as beneficial (for additional information on impact see Section 3).
- Hong Kong and China Gas involves multiple decision-making corporate bodies for identifying and evaluating Eligible Green Bond Projects. The company's Green Bond Committee, comprising members of the senior executive team as well as the Chief Financial Officer, are in charge of the final approval of the eligible projects.³ Moreover, Hong Kong and China Gas implemented a Green Development Steering Committee which is chaired by the company's Executive Director and Chief Operating Officer.⁴ Both of these committees have 'C-level' involvement, which Sustainalytics views as market best practice.

² "The Green Bond Principles 2017", dated 2 June 2017, issued by the International Capital Market Association (ICMA)

³ Green Bond Framework available at <http://www.towngas.com/en/Green-Bond/towngas-green-bond-framework>

⁴ Sustainability Report 2016 - https://www.towngas.com/getmedia/bdcae171-1bd2-4105-bfbd-89ce270c191c/sr_2016_e.pdf.aspx

- The disclosure and processes defined in the Hong Kong and China Gas Green Bond Framework with respect to the management of proceeds are in line the Green Bond Principles 2017 and reflect market practices.

Use of Proceeds

- Hong Kong and China Gas confirmed to Sustainalytics that, for proceeds used to increase the energy efficiency of its non-fossil-fuel-based operations, it will target a 5% increase in energy efficiency in the next 3-5 years. Sustainalytics recognizes that the green bond market may expect greater efficiency gains like 20%, and recommends that Hong Kong and China Gas strive for greater energy efficiency gains in its non fossil-fuel based operations.
- With respect to waste-water treatment projects, Hong Kong and China Gas has confirmed to Sustainalytics that proceeds will be directed to projects that improve water quality beyond what is legally required by the Chinese national standard.
- Proceeds directed to biofuel production will follow the waste-to-energy approach, mitigating the environmental and social risk of using viable food or forestry products for the production of energy.

Alignment with Green Bond Principles 2017

Sustainalytics has determined that the Hong Kong and China Gas Green Bond Framework aligns to the four pillars of the Green Bond Principles 2017. For detailed information please refer to Appendix 3: Green Bond Programme External Review Form.

Section 2: Sustainability Performance of the Issuer

Hong Kong and China Gas articulates a commitment to environmental protection in its mission statement, which is to provide its customers with a safe and reliable supply of energy while protecting and improving the environment.⁵ The company also has a vision to be Asia's leading energy supplier with an environmentally-friendly focus.⁶ Hong Kong and China Gas's commitment is also made evident through having managerial-level responsibility for environmental issues. For example, the company has implemented a Green Development Steering Committee under the direct oversight of the managing director of Hong Kong and China Gas.⁷

Hong Kong and China Gas has made progress toward delivering on this commitment by achieving a 23% reduction in GHG emissions per unit of gas produced from its Hong Kong production, compared to the baseline year of 2005,⁸ and a 90% reduction in construction waste.⁹ The company also implemented the decarbonization of its operations throughout Hong Kong and Mainland China by launching a Carbon

⁵ <http://www.towngaschina.com/en/About-Us/Vision-and-Mission>

⁶ <http://www.towngaschina.com/en/About-Us/Vision-and-Mission>

⁷ Sustainability Report 2016 - https://www.towngas.com/getmedia/bdcae171-1bd2-4105-bfbd-89ce270c191c/sr_2016_e.pdf.aspx

⁸ Sustainability Report 2016 - https://www.towngas.com/getmedia/bdcae171-1bd2-4105-bfbd-89ce270c191c/sr_2016_e.pdf.aspx

⁹ Annual Report 2016 - https://www.towngas.com/getmedia/866bcd86-b8ea-441d-8c60-04d265a12481/AR2016-Eng_Full.pdf.aspx?ext=.pdf

Reduction Competition, which resulted in 64,500 tonnes of avoided carbon emissions into the atmosphere. Sustainalytics recognizes that Hong Kong and China Gas's emissions reduction is still partially reliant on lower-emission fossil fuels such as natural gas.

However, Hong Kong and China Gas also demonstrates that it is taking steps to transition away from fossil-fuel energy sources. Hong Kong and China Gas's new ECO energy platform¹⁰, through which it has developed various non-fossil-fuel-based waste-to-energy production facilities, is indicative of these steps. Hong Kong and China Gas has also reported that its investments into landfill gas treatment facilities at the South East New Territories (SENT) and the North East New Territories (NENT) landfill sites helped to reduce the company's carbon emissions by an additional 56,000 tonnes a year, and estimated that the latter facility would increase the share of landfill gas to 5% of the company's local energy production in Hong Kong.¹¹

Sustainalytics is of the opinion that, although Hong Kong and China Gas is a fossil-fuel-based company, it has demonstrated an intention to transition away from fossil-fuel sources to a waste-energy approach. In Sustainalytics' view, such a transition could be strengthened by adding quantitative and timebound targets with respect to the percent of the company's energy production that it generates from non-fossil-fuel sources. Given that the Hong Kong and China Gas Green Bond Framework does not finance any fossil-fuel operations, Sustainalytics is of the opinion that the Hong Kong and China Gas Green Bond Framework contributes to the company's transition away from fossil-fuel energy.

Well positioned to mitigate common Environmental and Social risks associated with energy production

Besides respecting all laws and regulations in place in Hong Kong and Mainland China, the company implemented a Health, Safety and Environmental (HSE) Policy as well as a Total Quality Management (TQM) programme that strives for a holistic management of environmental and social risks specific to an energy producer and utilities company.¹² Sustainalytics views positively the following risk management criteria:

- (i) Hong Kong and China Gas' HSE policy is implemented across the company with the purpose of reinforcing the company's sustainability strategy. The HSE policy comprises a Process Hazard Analysis through which Hong Kong and China Gas evaluates the potential causes and impacts of operational incidents and determines any necessary critical controls;
- (ii) Hong Kong and China Gas' implemented a Total Quality Management programme in Mainland China so as to improve operational safety standards, work quality and services; the company received two gold awards from the 15th Hong Kong Occupational Safety and Health Award in recognition of its efforts to improve safety management standards;

¹⁰ https://www.towngas.com/getmedia/866bcd86-b8ea-441d-8c60-04d265a12481/AR2016-Eng_Full.pdf.aspx?ext=.pdf

¹¹ https://www.towngas.com/getmedia/9bc8b39f-2517-4842-862a-1fb2a82de91e/TGSD_FullReport_2016_en.pdf.aspx?ext=.pdf

¹² Sustainability Report 2016 - https://www.towngas.com/getmedia/bdcae171-1bd2-4105-bfbd-89ce270c191c/sr_2016_e.pdf.aspx

- (iii) The HSE Policy is developed around the prescriptions of recognized standards such as ISO 9001, ISO 14001 and OHSAS 18001.
- (iv) Hong Kong and China Gas has implemented a Stakeholder Engagement programme to help assess the sustainability performance of the company and identify the key topics of sustainability relevance for the company's stakeholders.

Sustainalytics is of the opinion that the health, safety and environmental policies and programmes outlined above enable the company to identify and mitigate social and environmental risks associated with Eligible Green Projects.

Section 3: Impact of Use of Proceeds

Importance of waste-to-energy projects in China

Hong Kong's urbanization rate of 100% in 2017, along with China's urbanization rate of 57.9%¹³ (which is projected to reach 80% by 2030¹⁴) have been correlated with increases in energy consumption and pollution rates.¹⁵ However, utilities companies such as Hong Kong and China Gas have dedicated capital expenditures for the deployment of waste-to-energy technologies in order to better capitalize on new market opportunities and contribute to China's national targets to divert a third of its waste to waste-to-energy plants by 2030.¹⁶

Sustainalytics believes that Hong Kong and China Gas' proposed landfill gas treatment facility in Tseung Kwan O (Hong Kong), along with the company's proposed waste-to-energy facilities in Zhangjiagang (China) and Suzhou (China), will positively contribute to China's national target to increase the share of clean energy to 15% by 2020 and to 30% by 2030.¹⁷ Moreover, Sustainalytics estimates that Hong Kong and China and Gas' waste-to-energy projects will also have a positive impact in lowering China's anthropogenic emissions of methane – a highly potent GHG – from landfills. It is estimated that the proposed projects would also help support China's efforts to reduce its reliance on coal-fired electricity production and thereby have an indirect positive impact on the country's air quality.

Separately, Sustainalytics believes that Hong Kong and China Gas' proposed agricultural waste processing plant in Hubei, China would also have a significant positive impact on air quality in the agriculture-dependent communities in China that traditionally practice open-field burning of their agricultural waste. While the opinion of the scientific community is that the negative impact of open-field burning has been generally underestimated in China,¹⁸ local authorities have recognized these practices as having a severe environmental and social impact and have established national plans to

¹³ <https://www.cia.gov/library/publications/the-world-factbook/fields/2212.html>

¹⁴ <https://esa.un.org/unpd/wup/Country-Profiles/>

¹⁵ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3733467/>

¹⁶ <https://e360.yale.edu/features/as-china-pushes-waste-to-energy-incinerators-protests-are-mounting>

¹⁷ <https://www.reeep.org/projects/china-roadmap-30-renewable-energy-penetration-2030>

¹⁸ <https://www.nature.com/articles/srep32307>

modernize its agricultural practices.¹⁹ Under China's 13th Five-Year Plan, the local government supports targeted environmental efforts including carbon emission reduction, pollutants emission reduction, smog reduction and clean energy promotion. It is Sustainalytics' opinion that Hong Kong and China Gas' proposed project in Hubei would positively contribute to tackling China's air quality challenges and contribute to China's biomass-to-energy national policies and its energy diversification commitments.

Importance of wastewater treatment projects in China

China's accelerated urbanization rates and rapid economic growth has been generating environmental degradation, most visible in the area of water pollution, due to uncontrolled wastewater discharges. The Chinese government recognized the negative environmental impacts associated with wastewater discharges, it imposed a Water Pollution Prevention and Control Action Plan and it placed the country's most eastern main rivers and water bodies into the Class V category, a level at which the water is considered too polluted for any uses.²⁰ However, China's Water Pollution Prevention and Control Action Plan²¹ includes ten measures as well as specific indicators that emphasize the markets' role in tackling water pollution. It is Sustainalytics' opinion that Hong Kong and China Gas' proposed wastewater treatment projects have a strong potential to capitalize on new market opportunities and are aligned with China's efforts to address wastewater practices.

Contribution to the Sustainable Development Goals

The Sustainable Development Goals (SDGs) were set in September 2015 and form an agenda for achieving sustainable development by the year 2030. Hong Kong and China Gas' Green Bond Framework advances the following SDG goals and targets:

Use of Proceeds Category	SDG	SDG target
Landfill gas collection and treatment (renewable energy)	SDG 7: Affordable and Clean Energy	7.1 By 2030, ensure universal access to affordable, reliable and modern energy services 7.1.2 Proportion of population with primary reliance on clean fuels and technology 7.2 By 2030, increase substantially the share of renewable energy in the global energy mix 7.2.1 Renewable energy share in the total final energy consumption
Waste-to-energy (renewable energy)	SDG 7: Affordable and Clean Energy	7.1 By 2030, ensure universal access to affordable, reliable and modern energy services 7.1.2 Proportion of population with primary reliance

¹⁹ <http://www.cn.undp.org/content/china/en/home/presscenter/articles/2017/05/19/undp-participates-in-china-biomass-energy-forum-2017.html>

²⁰ <https://journals.cdrs.columbia.edu/wp-content/uploads/sites/25/2016/10/70-343-1-PB.pdf>

²¹ http://english.gov.cn/policies/latest_releases/2015/04/16/content_281475090170164.htm

		on clean fuels and technology 7.2 By 2030, increase substantially the share of renewable energy in the global energy mix 7.2.1 Renewable energy share in the total final energy consumption
Wastewater treatment	SDG 6: Clean Water and Sanitation	6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally 6.3.1 Proportion of wastewater treated safely

Conclusion

Hong Kong and China Gas has developed a Green Bond Framework under which it intends to issue green bonds. Proceeds of the bonds will be used to finance or refinance expenditures related to investments in the company's utilities and gas-production assets with the aim of improving their environmental performance, specifically projects relating to: (i) landfill gas projects; (ii) biomass waste-to-energy projects, (iii) waste treatment projects; (iv) wastewater treatment projects; and (v) any other eligible projects targeting the production of energy from renewable or sustainable sources and/or improvements in the energy efficiency of the company's non-fossil fuel operations.

Although Hong Kong and China Gas is primarily a fossil-fuel-based company, it has demonstrated an intention to transition away from less-brown fossil-fuels sources (such as natural gas) to a waste-to-energy approach (see Section 2 for details). Given that the Hong Kong and China Gas Green Bond Framework does not finance any fossil-fuel operations, Sustainalytics is of the opinion that the Hong Kong and China Gas Green Bond Framework contributes to the company's signalled intention to transition towards non-fossil-fuel-based energy production. Additionally, Sustainalytics is of the opinion that Hong Kong and China Gas' proposed waste-to-energy and wastewater treatment projects in China will have a positive environmental impact and will also contribute to China's efforts to decouple urbanization and economic growth from environmental degradation.

Based on the above, Sustainalytics is of the opinion that the Hong Kong and China Gas Green Bond Framework is transparent, credible, contributes to the company's transition towards non-fossil fuel based energy sources, and is in alignment with the four pillars of Green Bond Principles 2017.

APPENDICES

Appendix 1: Green Bond/Green Bond Programme External Review Form

Green Bond / Green Bond Programme External Review Form

Section 1. Basic Information

Issuer name: The Hong Kong and China Gas Company Limited

Green Bond ISIN or Issuer Green Bond Framework Name, if applicable: The Hong Kong and China Gas Company Limited Green Bond Framework

Review provider's name: Sustainalytics

Completion date of this form: 1 November, 2017

Publication date of review publication:

Section 2. Review overview

SCOPE OF REVIEW

The review assessed the following elements and confirmed their alignment with the GBPs:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Use of Proceeds | <input checked="" type="checkbox"/> Process for Project Evaluation and Selection |
| <input checked="" type="checkbox"/> Management of Proceeds | <input checked="" type="checkbox"/> Reporting |

ROLE(S) OF REVIEW PROVIDER

- | | |
|---|--|
| <input checked="" type="checkbox"/> Consultancy (incl. 2 nd opinion) | <input type="checkbox"/> Certification |
| <input type="checkbox"/> Verification | <input type="checkbox"/> Rating |
| <input type="checkbox"/> Other (please specify): | |

EXECUTIVE SUMMARY OF REVIEW and/or LINK TO FULL REVIEW (if applicable)

Please refer to The Hong Kong and China Gas Company Limited Green Bond Framework available at <http://www.towngas.com/en/Green-Bond/towngas-green-bond-framework> and Second-Party Opinion Document above.

Section 3. Detailed review

1. USE OF PROCEEDS

Overall comment on section (if applicable):

Proceeds of the green bond will be used to finance or refinance expenditures related to investments in improving the company's environmental performance, specifically activities relating to: (i) landfill gas projects; (ii) biomass waste-to-energy projects, (iii) waste treatment projects; (iv) wastewater treatment projects; and (v) any other eligible projects targeting the production of energy from renewable or sustainable sources and / or improvements in the energy efficiency of the company's operations.

Waste Treatment, Waste-To-Energy projects, Wastewater Treatment, along with Renewable Energy and non-fossil-fuel-based Energy Efficiency projects, are recognized by the Green Bond Principles categories with clear environmental benefits. Given that proceeds from the Hong Kong and China Gas Green Bond Framework will not be directed towards fossil-fuel-reliant operations or projects, Sustainalytics views these projects as impactful.

Although Hong Kong and China Gas is primarily a fossil-fuel-based company, it has demonstrated an intention to transition away from less-brown fossil-fuels sources (such as natural gas) to a waste-to-energy approach (see Section 2 for details). Given that the Hong Kong and China Gas Green Bond Framework does not finance any fossil-fuel operations, Sustainalytics is of the opinion that the Hong Kong and China Gas Green Bond Framework contributes to the company's signalled intention to transition towards non-fossil-fuel-based energy production. Additionally, Sustainalytics is of the opinion that Hong Kong and China Gas' proposed waste-to-energy and wastewater treatment projects in China will have a positive environmental impact and will also contribute to China's efforts to decouple urbanization and economic growth from environmental degradation.

Use of proceeds categories as per GBP:

- | | |
|--|---|
| <input checked="" type="checkbox"/> Renewable energy | <input checked="" type="checkbox"/> Energy efficiency |
| <input checked="" type="checkbox"/> Pollution prevention and control | <input type="checkbox"/> Sustainable management of living natural resources |
| <input type="checkbox"/> Terrestrial and aquatic biodiversity conservation | <input type="checkbox"/> Clean transportation |
| <input checked="" type="checkbox"/> Sustainable water management | <input type="checkbox"/> Climate change adaptation |
| <input type="checkbox"/> Eco-efficient products, production technologies and processes | <input type="checkbox"/> Other (please specify): |
| <input type="checkbox"/> Unknown at issuance but currently expected to conform with GBP categories, or other eligible areas not yet stated in GBPs | |

If applicable please specify the environmental taxonomy, if other than GBPs:

2. PROCESS FOR PROJECT EVALUATION AND SELECTION

Overall comment on section (if applicable):

Hong Kong and China Gas involves multiple decision-making bodies for identifying and evaluating the Eligible Green Bond Projects. The company's Green Bond Committee, comprising members of the senior executive team as well as the Chief Financial Officer, are in charge for the final approval of the eligible projects. Moreover, Hong Kong and China Gas implemented a Green Development Steering Committee which is chaired by the company's Executive Director and Chief Operating Officer. Both of these committees have a 'C-level' involvement and therefore Sustainalytics assesses this as a market best practice.

Evaluation and selection

- | | |
|--|---|
| <input checked="" type="checkbox"/> Defined and transparent criteria for projects eligible for Green Bond proceeds | <input checked="" type="checkbox"/> Documented process to determine that projects fit within defined categories |
| <input type="checkbox"/> Summary criteria for project evaluation and selection publicly available | <input type="checkbox"/> Other (please specify): |

Information on Responsibilities and Accountability

- | | |
|--|--|
| <input checked="" type="checkbox"/> Evaluation / Selection criteria subject to external advice or verification | <input type="checkbox"/> In-house assessment |
| <input type="checkbox"/> Other (please specify): | |

3. MANAGEMENT OF PROCEEDS

Overall comment on section (if applicable):

For each Green Bond issue under the Hong Kong and China Gas Green Bond Framework, the funds will be specially earmarked within Hong Kong and China Gas to ensure that such funds are only disbursed to identified projects qualifying as Eligible Green Projects as defined under the Use of Proceeds. Any balance of issuance proceeds not allocated to Eligible Green Projects will be held in accordance with Hong Kong and China Gas's treasury policies, invested in cash, cash equivalent and/or money market instruments.

Sustainalytics is of the opinion that this is in line with market practice.

Tracking of proceeds:

- | |
|---|
| <input checked="" type="checkbox"/> Green Bond proceeds segregated or tracked by the issuer in a systematic manner |
| <input checked="" type="checkbox"/> Disclosure of intended types of temporary investment instruments for unallocated proceeds |
| <input type="checkbox"/> Other (please specify): |

Additional disclosure:

- | | |
|--|---|
| <input type="checkbox"/> Allocations to future investments only | <input checked="" type="checkbox"/> Allocations to both existing and future investments |
| <input type="checkbox"/> Allocation to individual disbursements | <input type="checkbox"/> Allocation to a portfolio of disbursements |
| <input type="checkbox"/> Disclosure of portfolio balance of unallocated proceeds | <input type="checkbox"/> Other <i>(please specify)</i> : |

4. REPORTING

Overall comment on section (if applicable):

Allocation reporting

Hong Kong and China Gas will provide information on the allocation of the net proceeds of its Green Bond(s) for each eligible project on the company's website as well as on Hong Kong and China Gas' Green Bond Report. Such information will be provided on an annual basis until the net proceeds have been allocated. This is in line with market practices.

Impact reporting

Where feasible, Hong Kong and China Gas will report on the environmental performance of the Eligible Green Projects funded. Examples of indicators include GHG emissions reduction (in tons of equivalent CO₂ per year, volume of treated wastewater and volume of processed waste. Sustainalytics recommends that Hong Kong strives to provide constantly updated and relevant impact reporting information.

Sustainalytics is of the opinion that reporting is in line with market norms.

Use of proceeds reporting:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Project-by-project | <input type="checkbox"/> On a project portfolio basis |
| <input type="checkbox"/> Linkage to individual bond(s) | <input type="checkbox"/> Other <i>(please specify)</i> : |

Information reported:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Allocated amounts | <input type="checkbox"/> GB financed share of total investment |
| <input type="checkbox"/> Other <i>(please specify)</i> : | |

Frequency:

- | | |
|--|--------------------------------------|
| <input checked="" type="checkbox"/> Annual | <input type="checkbox"/> Semi-annual |
| <input type="checkbox"/> Other <i>(please specify)</i> : | |

Impact reporting:

- | | |
|--|---|
| <input checked="" type="checkbox"/> Project-by-project | <input type="checkbox"/> On a project portfolio basis |
| <input type="checkbox"/> Linkage to individual bond(s) | <input type="checkbox"/> Other (please specify): |

Frequency:

- | | |
|--|--------------------------------------|
| <input checked="" type="checkbox"/> Annual | <input type="checkbox"/> Semi-annual |
| <input type="checkbox"/> Other (please specify): | |

Information reported (expected or ex-post):

- | | |
|--|---|
| <input checked="" type="checkbox"/> GHG Emissions / Savings | <input type="checkbox"/> Energy Savings |
| <input checked="" type="checkbox"/> Other ESG indicators (please specify): | |
| Volume of treated water (in m ³) | |
| Volume of processed waste (in m ³) | |

Means of Disclosure

- | | |
|---|--|
| <input type="checkbox"/> Information published in financial report | <input checked="" type="checkbox"/> Information published in sustainability report |
| <input type="checkbox"/> Information published in ad hoc documents | <input checked="" type="checkbox"/> Other (please specify):
Hong Kong and China Gas website |
| <input type="checkbox"/> Reporting reviewed (if yes, please specify which parts of the reporting are subject to external review): | |

Where appropriate, please specify name and date of publication in the useful links section.

USEFUL LINKS (e.g. to review provider methodology or credentials, to issuer's documentation, etc.)

Hong Kong and China Gas website: <https://www.towngas.com/en/Home>
 Hong Kong and China Gas' Sustainability Report: https://www.towngas.com/getmedia/bdcae171-1bd2-4105-bfbd-89ce270c191c/sr_2016_e.pdf.aspx

SPECIFY OTHER EXTERNAL REVIEWS AVAILABLE, IF APPROPRIATE

Type(s) of Review provided:

- | | |
|--|--|
| <input type="checkbox"/> Consultancy (incl. 2 nd opinion) | <input type="checkbox"/> Certification |
| <input type="checkbox"/> Verification / Audit | <input type="checkbox"/> Rating |
| <input type="checkbox"/> Other (please specify): | |

Review provider(s):

Date of publication:

ABOUT ROLE(S) OF REVIEW PROVIDERS AS DEFINED BY THE GBP

- (i) **Consultant Review:** An issuer can seek advice from consultants and/or institutions with recognized expertise in environmental sustainability or other aspects of the issuance of a Green Bond, such as the establishment/review of an issuer's Green Bond framework. "Second opinions" may fall into this category.
- (ii) **Verification:** An issuer can have its Green Bond, associated Green Bond framework, or underlying assets independently verified by qualified parties, such as auditors. In contrast to certification, verification may focus on alignment with internal standards or claims made by the issuer. Evaluation of the environmentally sustainable features of underlying assets may be termed verification and may reference external criteria.
- (iii) **Certification:** An issuer can have its Green Bond or associated Green Bond framework or Use of Proceeds certified against an external green assessment standard. An assessment standard defines criteria, and alignment with such criteria is tested by qualified third parties / certifiers.
- (iv) **Rating:** An issuer can have its Green Bond or associated Green Bond framework rated by qualified third parties, such as specialised research providers or rating agencies. Green Bond ratings are separate from an issuer's ESG rating as they typically apply to individual securities or Green Bond frameworks / programmes.

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As the Opinion is based on information made available by the client, Sustainalytics does not warrant that the information presented in this Opinion is complete, accurate or up to date.

Nothing contained in this Opinion shall be construed as to make a representation or warranty, express or implied, regarding the advisability to invest in or include companies in investable universes and/or portfolios. Furthermore, this Opinion shall in no event be interpreted and construed as an assessment of the economic performance and credit worthiness of the bond, nor to have focused on the effective allocation of the funds’ use of proceeds.

The client is fully responsible for certifying and ensuring its commitments’ compliance, implementation and monitoring.

SUSTAINALYTICS

Sustainalytics is an independent ESG and corporate governance research, ratings and analysis firm supporting investors around the world with the development and implementation of responsible investment strategies. With 13 offices globally, Sustainalytics partners with institutional investors who integrate environmental, social and governance information and assessments into their investment processes. Today, the firm has more than 300 staff members, including 170 analysts with varied multidisciplinary expertise of more than 40 sectors. Through the IRRI survey, investors selected Sustainalytics as the best independent responsible investment research firm for three consecutive years, 2012 through 2014 and in 2015, Sustainalytics was named among the top three firms for both ESG and Corporate Governance research. The firm was also named the Best SRI or Green Bond Research Firm by Global Capital in 2015. For more information, visit www.sustainalytics.com

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