



METHANE
GUIDING
PRINCIPLES

Methane Guiding Principles Signatory Reporting

Beijing Gas Group Co., Ltd.

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Company: Beijing Gas Group Co., Ltd.

Year of Joining Methane Guiding Principles: 2018

Senior Representative: Mr CHEN Jun



Principle One:

Continually reduce methane emissions.

- Please state what specific activities or projects your company has undertaken to reduce methane emissions. Please refer to the previous year's annual MGP reporting where applicable to refer to intended activity. Link to sustainability report where relevant to provide further detail.
- Describe how the reduction was achieved including description of the asset type, technology type, timeframe. What was the end result?
- Provide data to support your description e.g., the actual amount of emissions reduction achieved, or the reduction in methane intensity.

2024 Completed Activity

- **Reduce Fugitive Emissions.** Beijing Gas continuously optimizes the leakage detection model to establish a monitoring system which 'primarily based on efficient mobile detection, supplemented by localized fixed sensing'. We strengthen the capability of 'early detection + early handling' and explore new methods for 'high-precision leakage detection', first is to comprehensively consider the ontology factors of pipeline, classify and stratify detection plans, and achieve comprehensive detection through an integrated 'mobile + fixed' detection and monitoring approach, which includes 'initial high-precision screening, five-meter-line screening, trolley measurement, and AI model recognition' for full-domain detection. Second is to formulate high-precision leakage detection plans, and organize high-precision detection efforts by local units to reduce emission.
- **Reduce Operational Venting Emissions .** Beijing Gas applies 'key technologies and complete process equipment for non-stop urban gas supply' to replace traditional manual operations, thereby reducing methane emissions caused by pressure relief venting during manual operations. In 2024, approximately 1,300 tons of routine methane venting emissions were reduced.

2025 Intended Activity

- **Optimize pipeline network operation management and enhance risk prevention and control capabilities.** Beijing Gas sets plan to initiate updates and optimizations to the pipeline operation methods, focusing on addressing three

major operational risks: leakage, third-party damage, and equipment failure. The deployment of the above-mentioned full-domain detection for initial assessment and application of comprehensive leakage detection shall be able to improve the self-inspection rate of pipeline leakage.

- **Promote corrosion control, repair, and retrofit to reduce fugitive emissions from gas pipelines.** Beijing Gas intends to strengthen the cathodic protection system for in-service pipelines, improve construction standards of corrosion protection for newly constructed pipelines, strictly control the quality of on-site anti-corrosion construction at key points, install stray current drainage measures as needed, and reinforce pipeline protection to enhance network resilience.
- **Promote the application of emission reduction technologies.** Beijing Gas targets to promote the application of leak detection and repair (LDAR) at large scale above grade gas facilities such as gate stations, metering and pressure regulating stations, and CNG/LNG fueling stations to reduce fugitive methane emissions from sealing points. We plan to promote mechanical blocking equipment and technical services throughout the gas industry to reduce methane emission intensity during operational processes.

Principle Two:

Advance strong performance across the gas supply chain.

Please include answers to the following questions:

1. Did you participate in any methane research or plan to do so?
2. Did you conduct any outreach on methane management?
 - Describe what action you have taken to engage industry players across the value chain to better understand how to achieve robust methane emissions management.
 - Outreach activity could include training sessions, participation in webinars, influencing of NOJV partners, or publication of guidance. Activity could also include commercial incentives or engagement with investors to drive better performance by others.
 - Provide details of any outcomes that resulted from your action.

2024 Completed Activity

- The national standard 'Requirements of the Greenhouse Gas Emissions Accounting and Reporting - Part 48: Urban Gas Supply Enterprises', which compiled by Beijing Gas, has completed the review process. This standard fills the gap in China's urban gas industry for greenhouse gas emission accounting, lays the foundation for enterprises to establish a baseline and carry out methane emission control.
- Beijing Gas reviews our methane emission control management documents, standards, and research projects, completes the compilation of an innovation achievement report titled 'Construction and Practice of Methane Emission Control System for Gas Distribution Systems in Mega City'. This report which includes the background of methane emission control system, key practices, and the effects of the system won the Second Prize for 'Innovation in Enterprise Management in Beijing'.
- Beijing Gas fulfills the compilation the practice case report for enterprise-level methane emission control titled 'Construction and Practice of Methane Emission Grading Control System for Urban Gas Stations', including the background, objectives, key measures and corresponding effects. This case report is awarded the '2024 Excellent Practice Case for Green and Low-Carbon Development in Enterprises'.
- We actively participates in oil and gas industry conferences by sharing technical experiences and management practices of Beijing Gas in methane emission reduction in urban gas distribution systems, and learns from advanced practices in the industry.

In 2024, Beijing Gas attended a total of 10 industrial conferences as the topic of methane emission control and shared our experiences and practices at 4 of these conferences.

- We compile the 'Carbon Peak Action Plan of Beijing Gas' to effectively promote the carbon peak actions of ourselves and subsidiaries, contribute to the capital's overall goal of achieving carbon peak.

2025 Intended Activity

- Beijing Gas aims to maintain close contact with organizations such as the China Oil and Gas Methane Alliance, the Environmental Defense Fund (EDF), and CN Energy News, actively organize and participate in industry conferences, training sessions, technical exchanges, and other activities, foster extensive communication and collaboration with stakeholders across the entire natural gas value chain. We prepare to engage in collaborative research projects to promote innovation in methane emission control technologies and share best practices, establish a collaborative innovation mechanism of 'industry-academia-research-application' with universities and related research institutions to continuously enhance our operational management and technical capabilities.
- In terms of standard research, we intend to advance the release process of the national standard 'Requirements of the Greenhouse Gas Emissions Accounting and Reporting - Part 48: Urban Gas Supply Enterprises' and promote the standard after its release. Meanwhile, we would undertake the research project for the Beijing's provincial standard 'Guidelines for Carbon Footprint Accounting of Natural Gas Products'.
- Beijing Gas is going to continue to play a bridging role by leveraging the 2025 World Gas Conference (WGC) to promote international dialogue on methane emission control among the domestic oil and gas industry and to share advanced management experiences and practices globally.

Principle Three:

Improve accuracy of methane emissions data.

Please include answers to the following questions:

- Describe action taken to improve methane emissions data collection methodologies. This could be application of new technology at an operated site(s), investment and participation in R&D initiatives, development of monitoring/modelling software, or support to research that improves the accuracy of the quantification of methane emissions.
- Where new technology /software has been piloted or adopted, it is helpful to describe how it works, the reasons it was selected, and how it was deployed. Any data that can be shared to demonstrate improvements is useful.
- How these new methods/technologies has been adopted into your accounting process if at all.

2024 Completed Activity

- Beijing Gas recognizes a comprehensive detection and repair quality management is an effective method for controlling methane leakage. To further improve the methane emission control level, we selected a representative gate station and based on the actual situation and needs of methane emission detection and repair to design and develop a WeChat mini-program for methane emission control in urban station. Considering the convenience and accessibility, with the hardware and network foundation available to a large number of users, the inspection personnel can open the WeChat mini-program on any mobile devices with network (including smartphones and tablets).

2025 Intended Activity

- Beijing Gas plans to continue to carry out research on urban gas methane emission accounting and quantification technologies and methods, expand the number and variety of measured samples. We intend to perform cross-validation of multiple types of detection technologies and methods such as OGI and FID under different scenarios, continuously improve the accuracy of data.

Principle Four:

Advocate sound policy and regulations on methane emissions.

Please include answers to the following questions:

- Advocacy consists of active participation in legal consultation processes, external policy statements, and direct engagement with government.
- Consider providing details on the region or regulation involved, how you undertook your advocacy, others involved, and the outcome.

2024 Completed Activity

- Beijing Gas actively engages in communication with Beijing Municipal Ecology and Environment Bureau, including participated in the '2024 Beijing International Forum for Metropolitan Clean Air and Climate Actions' which is a professional forum as a part of 'China International Fair for Trade in Services', and shared Beijing Gas's methane emission control system under the theme of clean air. We collaborate with the Affairs Center for Climate Change Management in Beijing to jointly apply for the research project of Beijing's provincial standard 'Guidelines for Carbon Footprint Accounting of Natural Gas Products' to promote the establishment of provincial standards for carbon footprint of natural gas products in Beijing.

2025 Intended Activity

- Keeping collaboration with the Affairs Center for Climate Change Management in Beijing to conduct research on the research project of Beijing's provincial standard 'Guidelines for Carbon Footprint Accounting of Natural Gas Products' and develop a exposure draft for public and profession consultation.

Principle Five:

Increase transparency.

Please include answers to the following question:

1. Are you participating in OGMP 2.0, or do you intend to do so? If you are participating in OGMP 2.0 you may provide a link to the website.
- Describe what activity you have carried out e.g., providing information in relevant external reports on methane emissions data, methodologies, and progress and challenges in methane emissions management.
 - If you have contributed towards the standardization of comparable external methane reporting describe the activity, you have taken.

2024 Completed Activity

- N/A

2025 Intended Activity

- N/A

Methane Emissions

Do you report absolute methane emissions within your sustainability report?

If so, provide link.

Beijing Gas actively participates in the carbon peak action plan, TCFD report and CDP carbon disclosure work of its parent company, Beijing Enterprises Group. The carbon peak action plan, TCFD report and CDP carbon disclosure work elaborate on relevant information concerning methane emission control and management efforts by Beijing Gas. However, due to the lack of quantifiable detection standards and limited samples in the detection data, it is currently insufficient to accurately reflect the actual emissions of the enterprise. Therefore, this information is not available at this stage.

Do you report a methane intensity within your sustainability report?

If so, provide link.

Information is currently unavailable for the same reasons mentioned above.

What is your organization's total absolute methane emissions?

Provide a figure in tons.

Provide latest data publicly available...

Information is currently unavailable for the same reasons mentioned above.

State your methodology.

Information is currently unavailable for the same reasons mentioned above.

State your reporting boundary.

Information is currently unavailable for the same reasons mentioned above.

What are your organization's methane intensity?

Provide latest data publicly available.

Information is currently unavailable for the same reasons mentioned above.

State your methodology.

Information is currently unavailable for the same reasons mentioned above.

State your reporting boundary.

Information is currently unavailable for the same reasons mentioned above.

Do you have a methane emission target?

If yes, please state what it is, including the boundaries and methodology.

If no, are you developing such a target? Please state your intended timeline.

Strive to control the methane emission intensity of operational facilities to below 0.12% by 2025, with the goal of reducing the emission intensity to near-zero by 2030.