



METHANE
GUIDING
PRINCIPLES

Methane Guiding Principles Signatory Reporting

N.V. Nederlandse Gasunie

2025



Company: N. V. Nederlandse Gasunie

Year of Joining Methane Guiding Principles: May, 2019

Senior Representative: Merel Bijlsma

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

- **The project “Eliminate emissions through electrification or air/N2 supply” has been started to eliminate methane emissions on pressure reduction stations. The start of this project was reported as intended activity in our last reporting. The project aims to remove the methane emission from 45 stations.**
- **Start of a pilot project to remove emissions from gas operated line valves. This pilot project is a continuation of the intended activity as reported in 2024.**
- **The project to reduce compressor related emissions has been continued. For 8 compressor stations project proposals were formulated defining how to reduce those emission on these stations. Re-compression of the emitted methane was identified as the general favorable option.**
- **In 2024 mobile compression units were purchased to reduce emissions from pipeline works. This was stated as a planned activity in the previous reporting. Furthermore an internal policy has been established outlining the specific situations in which the new units should be utilized to mitigate emissions. The general aim of the policy is to reduce all emissions from pipeline works if possible.**



- **Improvement of measurement, reporting and verification (MRV) in accordance with OGMP 2.0 requirements. This was also a planned activity for 2024 as reported earlier. Gasunie improved their MRV through a site level measurement and reconciliation campaign. More information on this can be found under “principle 3 - Improve accuracy of methane emissions data”. Furthermore, source level reporting were improved through development of new automated detailed engineering calculations for pressure relief related emissions. Also, a broad measurement campaign with improved measurement equipment (HFS) was performed to improve insights into our fugitive emission landscape. The site level measurements improved our confidence in reported methane emissions supporting our prioritization for emission reduction actions. The improved source level campaign also assisted in prioritizing leakage repairs based on the leak size.**
- **Continuation of our digitization and automation project to register emissions in our IT infrastructure. This was stated as a planned activity in the previous reporting.**
- **Not mentioned in previous reporting as a planned activity: In 2024 we tested 4 new approaches to reduce emissions from leaking components. The test performed were:**
 - **Drill into and stop flow on a 1 inch pipe**
 - **Seal by injection with a suitable sealing compound and discontinue the components**
 - **Placing air tight enclosures on leaking components**
 - **Sealing grease nipples with specialized oil**
 - **Excavations on compressor stations were performed to improve our knowledge on removing underground leakages.**
- **Not mentioned in previous reporting: Created a separate team that has complete focus on reducing administrative burden for the organization in relation to leakage repairs. This has resulted in a faster process to repair leakages. Although this administrative task does not reduce emissions by itself it supports our emission reduction activities and was a crucial improvement in advancing our emission reductions.**

- **Not mentioned in previous reporting: A specialized team was formed in our organization that focusses on repair of leakage.**

2025 Intended Activity

- **Continue with the project to remove emissions from pressure reduction stations. The project is expected to be finalized in 2028.**
- **Further decrease repair times through definition of “typical leakages” and optimizing the associated repair processes.**
- **Start placing the re-compressor units at our sites to reduce compressor related emissions.**
- **Perform a study to eliminate start-up methane emission during of a blending station at the peak shaving LNG installation.**
- **Purchase of additional mobile compression units for different pressure spectrums to reduce emissions from maintenance activities.**
- **Perform a study to reduce emissions from the peak shaving LNG plant through a refurbishment of the plant.**

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

- **In 2024 Gasunie participated in Marcogaz, GIE, GERG and CEN for methane related subjects as planned in 2023.**
 - **Within CEN Gasunie contributes to the development of three standards in relation to the European methane regulation.**
 - **Within Marcogaz Gasunie contributes to the workgroup methane emission + on methane related questions.**
 - **Within GERG Gasunie supported research on methane measurement technologies and emission mitigation options.**
- **In 2024 Gasunie was a member of the MGP Midstream Methane Action Group. Within this group information specific to the midstream sector was shared and discussed for methane mitigation options.**

2025 Intended Activity

- **Gasunie intends to continue their participation in Marcogaz, GIE, GERG, and CEN.**
- **Gasunie plans to work closely together with other TSOs in Europe for the identification on best practices regarding mitigation measurements and methane emission detection.**



- **Gasunie plans a participation in a midstream focused workgroup from MGP.**

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

- **Site level measurements were performed with drones and laser spectroscopy technology. The results of these measurements were satisfying and provided more insight in our emission landscape across different sites. The technology was chosen because of the high accuracy of the sensor technology and the ability to capture the concentration levels of the cross section of methane clouds. Drones as a carrier system allow for measurements of often un-accessible high emission sources. However the measurements have to be found to be highly dependent on the meteorological conditions which provides a challenge in measurement planning.**
- **Site level measurements were performed with a mobile laboratory using laser spectroscopy and a tracer gas for reference values. The results of these measurements were satisfying and provided more insights in our emissions from different sites. The technology was chosen as the tracer gas improves the RDM approach that is also used by the drone measurements providing a clear baseline for the measurement model. Furthermore the mobile laboratory can distinguish methane and ethane concentration ensuring that only**

emissions from our own sites are accounted for in the calculations. These measurements were dependent on meteorological conditions and the accessibility of street infrastructure at and around the measured sites.

- A study using satellites for methane detection was finished. The results of the study leave room for improvement. Obstacles in the study process were related to capacity restrictions of multiple resources and unsuitable meteorological conditions.
- A broad source level measurement campaign was completed using HFS to increase insight into the distribution of fugitive emissions.
- A broad source level measurement campaign was executed to increase insight into emission from network components that are not situated on sites (e.g. valve stations).
- Harmonization of source level measurements to increase data homogeneity and reporting quality.
- An automatic engineering calculation was developed for reporting the emissions of a pressure regulation unit on an LNG tank. Previously those emission estimates were based on yearly average values. The new developed automation uses operating data to perform the calculation.
- For underground methane emission quantification we tested the use of measuring mats with HFS. Similar mats are typically used at DSOs. In our test we used them to measure the emissions from leaking underground valves. The results from this test are still being discussed internally.
- QOGI and OGI cameras were used for leakage screening on different sites. Also QOGI was classified as the least favorable option for emission quantification of un-accessible locations due to its high uncertainties.
- High Flow Sampling was used to measure the emissions from vent stack. The measurement was satisfying and will form a standard element of our source level repertoire for the measurement campaign in the following year. However this approach is limited to an operation condition where no emergency vents can take place, i.e. idle machine situations.

- **A pilot project with satellite measurements was concluded. The pilot aimed to identify controlled emission on specific sites.**
- **The development of IT tools for methane registration and reporting was continued in 2024.**

2025 Intended Activity

- **Continuation of IT tools for methane registration and reporting.**
- **Active participation on innovating and testing methane measurement and reduction technologies.**
- **An internal tool is being developed to calculate (potential) emissions from various maintenance tasks performed on our network. The tool will be deployed within our organization and used for reporting purpose. It will also be used to determine which emission evasion strategy should be chosen.**
- **Perform a site level measurement campaign, including small emitting sites in the measurement plans.**
- **Perform source level measurements on all our operated assets with multiple measurements of potential leak sources per year.**
- **Contribute to a study for acoustic based leak detection.**

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

- **In 2024 the European Regulation for methane reduction was launched providing a European policy on methane emission reduction. Gasunie was involved in the development of this regulation.**
- **Gasunie worked together with GIE, Marcogaz, Eurogas and several other institutions on methane emissions. This institutions are (activities continued):**
 - **European commission**
 - **UNEP**
 - **OGMP 2.0**
 - **Methane Guiding Principles**
 - **CEN TC 234 WG14 Methane**
 - **Dutch branche organization NBNL**

2025 Intended Activity

- **Gasunie intends to continue their collaboration with the mentioned organizations.**

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

- **Gasunie joined MGP as a signatory in 2019**
- **Gasunie joined OGMP in 2020 for reporting**
- **Gasunie publishes their methane emissions in the annual reports**
- **Gasunie delivered data of 2024 reporting according to OGMP 2.0 format and achieved gold standard.**
- **Gasunie fills the chairmanship of CEN TC 234 WG14 Methane**

2025 Intended Activity

- **Gasunie will publish their methane emission in their annual reporting**
- **Gasunie contributes within CEN to the development of standards for quantification, leak detection and repair, and venting for TSO, DSO, LNG and UGS.**

Methane Emissions

Do you report absolute methane emissions within your sustainability report?

If so, provide link.

Gasunie reports absolute methane emission in their annual reports. The methane emissions are reported under scope 1 of the Greenhouse Gas Protocol (GGP) as network losses. Methane is reported as an absolute number and in CO2 equivalents with a Global Warming Potential (GWP) of 28. (based on [IPCC AR5 report](#)).

Do you report a methane intensity within your sustainability report?

If so, provide link.

Gasunie does not report methane intensity. Gasunie rather reports an absolute amount of methane emissions.

What is your organization's total absolute methane emissions?

Provide a figure in tons.

Provide latest data publicly available.

Gasunie publishes its methane emissions in its annual report, which can be found at Gasunie [Annual Report](#). At the time of publication of this report, the final review is ongoing. Therefore, the total methane emissions cannot be presented yet. For further information, please refer to the website where the annual reports are published.

State your methodology.

Gasunie deploys the methodology of OGMP 2.0 for methane emission reporting.

The inventory of our emission sources consists of:

1. Fugitive emissions of compressor station, underground storage facilities, measurement and regulating stations, gas delivery stations, reducing stations, export stations, and high pressure valve stations.
2. Vented emission from: maintenance, measurement equipment, pneumatic devices, compressor starts / stops , compressor seal gas emissions, incident emission
3. Incomplete combustion emissions of gas fired compressors and gas engines.

Gasunie has been working for years to set up a methane inventory. The documentation on our emission and activity factor database is being updated on a regular basis. The inventory is based on the outcome of research projects in the last decade, and Piping & Instrumentation Diagrams of potential leaking sources..

Depending on the type of emission, we use measurement calculation and estimation to derive the methane emission factors.

State your reporting boundary.

Gasunie reports the methane emission from the operated assets. These include

- Gasunie Transport services BV
- BBL Company V.O.F
- Energystock B.V.
- EemsEnergy Terminal B.V.
- Gasunie Germany

What are your organization's methane intensity?

Provide latest data publicly available.

Methane intensity data is not reported.

State your methodology.

Methane intensity data is not reported.

State your reporting boundary.

Methane intensity data is not reported.

**Do you have a methane emission target?
If yes, please state what it is, including the boundaries and
methodology.**

We have the following emission reduction target for methane.

2030: The methane emissions (network losses) is < 70 kilotons of CO₂ equivalents (using GWP of 28).

We have the following ambition for our overall CO₂ equivalent emissions

2045: our infrastructure will be net zero in 2045.

Those targets include the operated assets of Gasunie and the methodology to assets methane emissions is based on OGMP 2.0.

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

Not applicable.