METHANE GUIDING PRINCIPLES

Methane Guiding Principles Signatory Reporting

Baker Hughes

2025

Company:

Baker Hughes

Year of Joining Methane Guiding Principles:

2020

Senior Representative:

Ilaria Parrella, Emissions Abatement Executive Director

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

With customers/partners:

- Baker Hughes offers a range of products and services to help our customers identify, reduce and eliminate methane emissions including flare gas recovery, flare optimization, zero-emission compressor, vented gas recompression, compressor upgrades, and low-emission valves to control fugitives and leakage, among other solutions.

- We are actively engaged in helping our customers meet their carbon and methane emissions reduction goals by raising awareness of the benefits of various technologies. At Baker Hughes, we take a holistic, partnership approach to emissions abatement to design and deliver tailored solutions that efficiently and cost-effectively reduce our customer's emissions. Starting with advisory services, we have integrated solutions spanning the entire oil and gas value chain – from the reservoir to recovery. Combining our decades of experience in compression, process and power generation with engineering capabilities and modularization expertise, today we have more than 40 proven technologies to cost-effectively detect, reduce, and prevent all emission types – flaring, venting, fugitives and combustion – with a particular focus on methane.

- Throughout the past year, several collaboration agreements were signed, and activities progressed with major operators and partners for emissions abatement, including methane. For example:
  - On the methane monitoring side, in March 2024 we announced completion of one of the largest ever full-scale studies of flare combustion with bp. This includes methane slip emissions quantification from 65 flares across seven regions, improving bp's methane measurement accuracy and enabling early interventions to reduce emissions.
  - In April 2024 we announced a collaboration with Halfaya Gas Company for a gas flaring reduction project at the Bin Umar gas processing plant in southeastern Iraq
  - In October 2024, we announced our largest order ever of Integrated Compressor Line (ICL) units, for and on behalf of Dubai Supply Authority (DUSUP), to enhance the reliability of energy supply and support local decarbonization efforts in the United Arab Emirates.
  - In November 2024 during COP29, Baker Hughes and SOCAR announced a project that will significantly reduce flaring at SOCAR's refinery in Baku. Using Baker Hughes' innovative emissions abatement technology, the project is expected to to recover flare gas equivalent up to 7 million Nm^3 of methane per year, and further reduce CO_2 emissions by up to 11,000 tons per year.
  - In January 2025 ADNOC Gas announced the deployment of Levidian's LOOP decarbonization unit, in partnership with Baker Hughes, at their Habshan site in the United Arab Emirates. The project will transform methane into valuable graphene and clean hydrogen.
- We continued to collaborate with companies on mobile recompression. These units are used to drastically reduce methane emissions prior to pipeline maintenance phases, avoiding venting into the atmosphere.
- We have continued to deploy our subsea monitoring technology, enabling early detection, investigation, and mitigation of possible leaks and emissions.

How we aim to reduce our own emissions:

- In 2019, Baker Hughes was one of the first companies in our industry to make a public commitment to reduce our operational emissions 50% by 2030 and achieve net-zero Scope 1 and 2 emissions from our operations by 2050.
- During 2023, we reduced our Scope 1 and 2 GHG emissions by 28% compared to our 2019 baseline year.
- We committed to an internal scope 3 (value chain emissions) goal – and have shared the roadmap toward meeting that goal in our latest Corporate Sustainability Report – for each of the 10 categories of scope 3 emissions that relate to our business.
- Through our Carbon Out program, we are empowering each Baker Hughes employee to take an active role in our goal of achieving net-zero GHG emissions by 2050 by identifying actions that reduce our direct and indirect emissions footprint – with over 1,000 projects in the pipeline.
- We completed two projects to reduce methane emissions from our major testing facilities, mitigating our methane emissions while growing our activity.
- Find additional information in our latest Corporate Sustainability Report.

2025 Intended Activity

With customers/partners:

- Our vision is to accelerate methane emissions through tailored abatement solutions.
- We will continue our engagement with current and potential customers across the world to help them reduce emissions in a cost-efficient way.

- We will continue to collaborate with our partner network to offer technologies to increase energy efficiency and reduce greenhouse gas (GHG) emissions, from flaring, venting, fugitives and combustion.

How we aim to reduce our emissions:

- Baker Hughes is committed to reducing our GHG emissions by 50% by 2030 and achieve net-zero emissions by 2050.
- Baker Hughes will continue collaborating with our suppliers and customers to meet our emissions reduction goals.
- Baker Hughes will continue partnering with our customers to understand their challenges and co-create tailored solutions to reduce their emissions?

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

- Baker Hughes is an energy technology company, and we engage with our customers and the industry on the importance of reducing methane emissions.
- Baker Hughes actively participated in speaking opportunities at several conferences and delivered technical presentations and webinars with topics focused on methane reduction in the oil & gas industry, for example:

- During Houston Energy and Climate Week in June 2024, Baker Hughes hosted at our headquarter a public event about climate technologies solutions, with a focus on flaring reduction solutions.
- In July 2024, we organized and moderated a MGP technical webinar focused on engineering solutions for methane abatement.
- In September, at the Baku Climate Action Week, Baker Hughes spoke in a panel dedicated to the role of technology to support measurement, reconciliation and abatement, during the Advancing Global Methane Reduction conference.
- In Q4 2024 we held 2 global webinars with S&P to raise awareness on the issues pertinent to methane emissions reduction.
- During Baker Hughes Annual Meeting in January 2025, we organized a session dedicated on emissions reduction, with global representation.
- At EGYPES 2025 in February of this year, we spoke on a panel about Eliminating Methane Emissions, Reducing Flaring, and Electrifying Operations.
- In February 2025, we participated in the SPE Decarbonization Congress in Houston, with representation in a panel discussion about flare and venting abatement technologies and along with a session about LNG and net-zero methane emissions.
- Also in February 2025 at India Energy Week, we presented at the technical conference outlining solutions to use of flare gases as an alternative fuel for gas turbines.

Our commitment is also formalized through participation in a number of organizations, groups, and industry best practices that focus specifically on the methane emissions challenge. For example, Baker Hughes is actively engaged as a member, in working groups, and other projects for the Methane Guiding Principles (MGP), International Association of Oil and Gas Producers (IOGP), and the Society of Petroleum Engineers (SPE), Methane Challenge US EPA, among other organizations and initiatives.

2025 Intended Activity

Baker Hughes will continue to:

- Raise awareness throughout the supply chain and help to reduce carbon footprints. For example, our proprietary Life Cycle Assessment (LCA) methodology – FastLCA – enables full visibility on asset- and -product level verifiable, Scope 1, 2 and 3 greenhouse gas emissions data.

- Collaborate with our internal technology teams and external partners (academia, research institutes) to drive research and development on methane emissions reduction technologies.

- Increase industry awareness of solutions for methane measurement and abatement by organizing webinars and workshops and participating industry conferences, working groups, and other engagements.

We will continue industry engagement sessions on emissions abatement during our Annual Meeting in Florence gathering global thought leaders.

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 have been adopted into your accounting process if at all.

2024 Completed Activity

- Our flare.IQ technology provides real-time monitoring of flare combustion efficiency (CE), destruction and removal efficiency (DRE), and automatic control of flare operation for assisted flares and has been used to reduce methane emissions in a number of upstream and downstream sites. This combustion efficiency, DRE, tracking method based on flare process conditions provides accurate emission monitoring, thus reducing methane slip from flaring. Case study with bp described here; video here. flare.IQ was launched in 2017 with an emphasis on the North American market and regulatory compliance with the EPA Refinery Sector Rule 63.670. It has been adopted by flare operators around the globe for improving flaring efficiency and methane quantification and reporting in line with OGMP 2.0 level 4. New outputs from flare.IQ are now available including CO2 equivalent emissions, CO and VOC.

- Baker Hughes has developed solutions that improve flare flow measurement and flare combustion efficiency monitoring. Accurate 24/7/365 real-time combustion efficiency is key for flare emission calculations, rather than using static emission factors.

- We published a paper providing an overview of the current state in methane leak detection and quantification using sensors, focusing on the types of sensors, sensing principles, and applications. A particular focus is given to sensors that can be installed on mobile robots and drones." ***Enabling Methane Emission Detection and Quantification in Robots***." Paper presented at the ADIPEC, Abu Dhabi, UAE, November 2024. doi: https://doi.org/10.2118/222470-MS)

2025 Intended Activity

New projects with other customers will come on stream.

Baker Hughes will continue innovation initiatives through in-house research and development, as well as external investments and collaborative partnerships to further enhance our existing offering and develop new technologies to track and reduce emissions. This includes integration of our flare monitoring solution flare.IQ into our existing digital platform.

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

We support the development of well-designed policies that directly reduce methane emissions from global oil and natural gas operations. Policies should address methane emissions from the full natural gas value chain. We believe governments can play an important role in helping the oil and gas industry tackle methane emissions by facilitating investment in infrastructure and technology development.

During 2024 Baker Hughes engaged with regional and national policymakers and governments to outline methane abatement technologies. For example, we actively collaborate in the Emissions Commission of the Argentinian Oil and Gas Institute.

- Click here for our Methane Policy.
- Natural Gas Flaring Policy.
- Methane Venting and Fugitives Policy Principles Statement.

2025 Intended Activity

We will continue to engage in the activities of associations and initiatives that we are members of, to promote sound policy and regulations on methane emissions.

Additionally, we will continue to contribute to discussions on developing GHG regulations at national levels where we have activities and engage with policymakers as appropriate.

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

Baker Hughes advises and provides technology solutions to enable operators globally to achieve OGMP 2.0 gold standard. We disclose information on our Scope 1, Scope 2 and Scope 3 emissions in our latest Corporate Sustainability Report here.

2025 Intended Activity

Baker Hughes will continue participating in various work streams under Methane Guiding Principles that enable regulatory compliance.

In 2025, Baker Hughes will continue to report information within the CDP framework.

Methane Emissions

Do you report absolute methane emissions within your sustainability report?
If so, provide link.

Yes.

Please see page 155 of our Corporate Sustainability Report available here. Our 2024 Corporate Sustainability Report will be published during 2025.

Do you report a methane intensity within your sustainability report?
If so, provide link.

No.

Baker Hughes doesn't produce oil or natural gas.

What is your organization's total absolute methane emissions?
Provide a figure in tons.
Provide latest data publicly available...

2023 Data: Scope 1 – 3,296; Scope 2 – 328 ($MTCO_2e$)

Please see page 155 of our Corporate Sustainability Report, available here.

State your methodology.

GHG Protocols

State your reporting boundary.

N/A

What are your organization's methane intensity? Provide latest data publicly available.

N/A

Baker Hughes doesn't produce oil or gas.

State your methodology.

N/A

State your reporting boundary.

N/A

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.

In 2019, Baker Hughes made a commitment to achieve net-zero Scope 1 and 2 emissions from our operations by 2050. During 2024, we reduced our Scope 1 and 2 GHG emissions by 28% compared to the baseline year - 2019.

In 2023, Baker Hughes reduced scope 1 and 2 methane emissions by 27% compared to previous year. A direct result of internal initiatives such as the projects outlined at the end of Principle One section of this report.

Our latest Corporate Sustainability Report is available here.