

INPEX CORPORATION

Our Approach to Methane Emissions Management

Message from Management

Reducing greenhouse gas emissions from our operations while fulfilling our responsibility to provide a stable supply of energy is a key management priority for INPEX as we work toward net zero. Methane is the primary component of natural gas, but it is also a potent greenhouse gas. We therefore consider the management of methane emissions associated with production and transportation to be a priority.

Regulatory requirements and stakeholder expectations concerning the measurement, reporting and reduction of methane emissions are becoming increasingly stringent in many countries and regions. Beyond responding to these developments, we believe that transparently communicating our emissions profile and the progress of our initiatives is an important responsibility as an energy company.

INPEX's achievement of OGMP 2.0 Gold Standard Reporting marks an important milestone and recognizes the high standard of our methane emissions measurement and reporting practices under an international framework. We will continue to enhance these practices, improve the accuracy and reliability of reported data, identify priority mitigation measures, explore the application of more advanced measurement and emissions reduction technologies, and steadily reduce methane emissions.

Hideki Kurimura

Director, Executive Vice President
Technical Headquarters
HSE

Highlights

0.04% Methane emissions intensity (2025)	OGMP 2.0 Gold Standard Reporting
---	---

Methane emissions (CO₂ equivalent) and methane emissions intensity at INPEX-operated projects are shown below.

	2023	2024	2025
Methane emissions (thousand t-CO ₂ e)	179	155	112
Methane emissions intensity (%)	0.05	0.05	0.04

1. Why Methane Emissions Management Matters

Methane (CH₄), the primary component of natural gas, has a shorter atmospheric lifetime than carbon dioxide (CO₂) but a much stronger warming effect over the near term. According to the IPCC, methane has a global warming potential approximately 30 times that of CO₂ over 100 years and more than 80 times over 20 years. The International Energy Agency (IEA) reports that methane is responsible for around 30% of the rise in global temperatures since the Industrial Revolution and that the energy sector accounts for more than 35% of human-caused methane emissions. Rapid and sustained reductions in methane emissions from oil and natural gas operations are therefore among the most effective measures available to limit near-term warming.

Natural gas plays an important role in supporting the energy transition. However, across production, transportation and use, methane that would otherwise be supplied as fuel can be released unnecessarily through equipment leaks, venting during maintenance and uncombusted methane from flaring. These emissions contribute to climate change and represent a loss of natural gas resources. The environmental value of natural gas can be fully realized only when such emissions are minimized across the value chain. INPEX therefore treats methane emissions reduction as a priority in balancing a stable supply of natural gas with climate action.

References: IPCC (2021), Climate Change 2021: The Physical Science Basis; IEA (2025), Global Methane Tracker 2025, “Understanding methane emissions.”

2. INPEX’s Corporate Position on Climate Change

INPEX is working to transform the energy system toward net zero by 2050 while responding to growing energy demand in Japan and worldwide and fulfilling its responsibility to provide a stable energy supply. This approach is set out in the Corporate Position on Climate Change. To contribute to the goals of the Paris Agreement, INPEX aims to achieve net zero absolute Scope 1 and 2 emissions by 2050 and reduce Scope 1 and 2 emissions intensity by at least 60% by 2035 compared with 2019.

To support these targets, INPEX aims to maintain methane emissions intensity at its operated projects at the current low level and achieve zero routine flaring by 2030.

- **Maintain methane emissions intensity (methane emissions / natural gas production) at the current low level of approximately 0.1%.**
- **Achieve zero routine flaring by 2030.**

In line with these objectives, INPEX continuously reviews its production processes, advances methane measurement and reporting in accordance with the standards of OGMP 2.0 Gold Standard Reporting, and works to improve the accuracy and reliability of reported data. INPEX is also pursuing zero routine flaring to reduce greenhouse gas emissions from its operations.

Source: INPEX, Corporate Position on Climate Change (February 13, 2025).

3. Methane Management Framework: OGMP 2.0

Industry-wide emission factors have traditionally been widely used to quantify methane emissions, but they may not fully reflect the condition or operating circumstances of individual equipment. The IEA and others have also reported discrepancies between estimates based on atmospheric observations by satellites or aircraft and figures calculated and reported using conventional emission factors. Such discrepancies may arise from differences in measurement accuracy, measurement coverage and temporal representativeness. Understanding actual emissions more accurately is essential to identifying priority emission sources and confirming the effectiveness of mitigation measures. INPEX therefore considers measurement-based emissions quantification a fundamental component of methane mitigation.

The Oil & Gas Methane Partnership 2.0 (OGMP 2.0) is the United Nations Environment Programme's (UNEP) flagship oil and gas methane reporting and mitigation program and a core component of UNEP's International Methane Emissions Observatory (IMEO). It promotes methane emissions reductions through measurement-based reporting and is the sector's only comprehensive, measurement-based international reporting framework. Member companies set methane emissions reduction targets and report annually on both operated and non-operated assets using the five reporting levels below, progressively improving data quality and granularity. Gold Standard Reporting is assessed at the company level and reflects implementation of OGMP 2.0 requirements, including progress toward the required reporting levels for material assets.

Level	Reporting granularity and quantification method
Level 1	Report a single aggregated emissions figure at the venture or asset level; used only where information is extremely limited.
Level 2	Report using generic emission factors by IOGP and Marcogaz emission category.
Level 3	Report by detailed source type using generic emission factors.
Level 4	Report by detailed source type using company- or asset-specific methods, including direct measurement, measurement-based specific emission factors and detailed engineering calculations.
Level 5	Combine Level 4 with independent site-level measurements at representative facilities and report after reconciling the two datasets.

Source: Prepared by INPEX based on the OGMP 2.0 Reporting Framework (UNEP / IMEO).

Our Journey

INPEX became the first Japanese company to join OGMP 2.0 in November 2023. In its 2024 and 2025 submissions, INPEX was recognized as being on the Gold Standard Pathway after developing concrete plans to transition its assets to advanced, measurement-based reporting and demonstrating progress in implementing those plans.

Since joining, INPEX has prioritized higher-emitting operated assets and progressively developed source-level inventories, measurement-based quantification, leak detection and repair (LDAR), and site-level measurements. In the 2026 reporting cycle, covering 2025 data, INPEX achieved Gold Standard Reporting for the first time. The recognition reflects implementation of OGMP 2.0 requirements, including measurement-based emissions reporting and efforts to confirm the accuracy and reliability of reported data.

Timing	INPEX's OGMP 2.0 Journey
November 2023	Joined OGMP 2.0 as the first Japanese company.
2024 and 2025	Submitted methane emissions reduction targets, emissions from operated and non-operated assets, and implementation plans toward Gold Standard Reporting. Progressively advanced measurement and reporting.
October 2026	Advanced measurement-based reporting at major operated assets and achieved Gold Standard Reporting at the company level.

Gold Standard Reporting assesses company-level implementation of OGMP 2.0 requirements, including the establishment of methane emissions reduction targets, advancement of measurement-based reporting and progress toward Level 5. It does not certify the volume of emissions reduced or individual mitigation measures. INPEX uses the resulting measurement and reporting data to identify priority emission sources and drive methane reductions.

4. Emissions Detection and Measurement Approach

To understand actual emissions more accurately, INPEX develops source-level inventories and quantifies emissions through direct source measurements, calculations using equipment-specific emission factors, and detailed engineering calculations (bottom-up). At major higher-emitting operated assets, INPEX also uses independent site-level measurements covering the entire facility, including drone-based measurements (top-down). By comparing and reconciling bottom-up estimates with top-down measurements and investigating the causes of discrepancies, INPEX continuously improves the accuracy and reliability of reported data.

The principal measurement methods used at INPEX-operated assets are shown below. Appropriate methods are combined according to asset characteristics, emission sources and operating conditions.

Measurement method	Description
Flow meters and gas chromatography	Continuously measure flare, vent and fuel gas flow using online flow meters and analyze gas composition by gas chromatography to quantify emissions.
Stack testing	Measure exhaust stacks of combustion equipment to quantify uncombusted methane (methane slip).
Optical gas imaging (OGI / QOGI)	Identify leaks using infrared cameras and quantify them using quantitative cameras or tablets.
Drone-based site-level measurement	Use drones equipped with methane, CO ₂ , wind and GPS sensors to establish a downwind measurement plane and quantify total facility emissions.
High-precision mobile methane detection	Mount a high-precision methane detector on a vehicle and survey pipeline routes while driving.

For drone-based site-level measurements, a measurement plane is established downwind of the facility, and emissions are estimated using methane concentrations, wind direction and wind speed. CO₂ is measured at the same time to help assess whether detected emissions originate from combustion processes.

When leaks are identified through LDAR or other activities, they are repaired promptly, subject to safety and operational conditions. For emissions that cannot be repaired immediately, or emissions

from flaring and venting, INPEX assesses environmental impact, safety, technical feasibility, cost and operational impact and considers changes to operating practices or equipment improvements.

5. Initiatives at INPEX-operated Assets

INPEX assesses the materiality of emissions across all operated assets and prioritizes measurement and reduction initiatives at higher-emitting assets. The following sections describe current initiatives and future directions by business type.

5.1 Avoiding Emissions through Design

The most reliable way to reduce emissions is to design facilities so that they do not occur. At INPEX-operated LNG projects, control valves and other instruments are powered by compressed instrument air rather than natural gas. Because gas-driven equipment releases gas each time it operates, using air-driven equipment avoids emissions by design. Gas from centrifugal compressor dry gas seals and glycol dehydration units is routed to recovery systems and is not released to the atmosphere during normal operations. Facilities are also designed, in principle, to avoid routine flaring and venting. INPEX will continue to apply these low-emission design principles to new projects.

5.2 Advancing Measurement in LNG Operations

At INPEX-operated LNG projects, emissions from major sources at offshore production facilities and onshore LNG plants are quantified using measurement-based methods. Emissions from flaring, venting and fuel gas are calculated using continuous online flow measurements and gas composition analysis. Because combustion equipment such as gas turbines may emit uncombusted methane, stack testing is conducted to quantify methane slip. Periodic LDAR surveys using optical gas imaging cameras are carried out on applicable equipment. Detected leaks are quantified and addressed promptly, subject to safety and operational conditions.

In addition to source-level measurements, drone-based site-level measurements independently quantify total facility emissions. Results are compared and reconciled with source-level estimates, and the causes of discrepancies are analyzed and used to improve quantification methods and measurement plans.

5.3 Domestic Natural Gas Pipeline Network

INPEX owns and operates a natural gas pipeline network of approximately 1,500 kilometers in Japan, supplying customers nationwide. In addition to the pipelines themselves, the network includes valve stations installed every few kilometers to isolate gas flows during emergencies or maintenance, and compressor stations that maintain the pressure required for transportation.

Approximately 80% of the pipeline network is periodically surveyed using vehicles equipped with high-precision methane detection systems, while mountainous and other remaining sections are inspected on foot. Quarterly LDAR is conducted at all valve stations, and compressor stations are inspected periodically according to equipment characteristics. Most emissions from the pipeline network result from planned gas releases during maintenance and occur through vent stacks at valve stations. Emissions are calculated using engineering calculations based on measured pressure before depressurization and analysis of sales gas composition.

In 2025, INPEX trialed drone-based measurements to check for internal leakage from valves connected to vent stacks. Building on this trial, INPEX surveyed valves at all valve stations equipped with vent stacks and is taking the necessary action where internal leakage has been identified.

5.4 Domestic Production and Processing Facilities

At other domestic production and processing facilities and LNG receiving terminals with relatively low methane emissions that are not currently classified as material assets under OGMP 2.0, INPEX continues to identify and reduce emission sources, primarily through periodic LDAR. INPEX will consider plans to further advance measurement as necessary, taking into account future trends in production and methane emissions.

6. Initiatives for Non-Operated Assets

In addition to operated assets, INPEX works to quantify and report methane emissions from non-operated assets in which it participates. Among its many participating interests, INPEX identifies the assets accounting for the majority of emissions and prioritizes engagement with their operators to understand emissions and management practices. Many of the higher-emitting non-operated assets are operated by OGMP 2.0 member companies, and INPEX has confirmed that most are implementing measures aligned with OGMP 2.0 requirements. Through regular discussions with operators and greenhouse gas working groups, INPEX shares information on advanced measurement and emissions reduction initiatives and continuously monitors progress.

7. Methane Emissions Data Disclosure and Reliability

INPEX continuously discloses greenhouse gas emissions data, including methane emissions and methane emissions intensity, through its Sustainability Report and other channels. Since joining OGMP 2.0, INPEX has also reported annually under the framework on methane emissions from operated and participating non-operated assets and on the applicable measurement and quantification methods.

Reports submitted to OGMP 2.0 are assessed for data quality and other criteria under the framework. Methane emissions from operated assets included in greenhouse gas data disclosed through the Sustainability Report and other channels are also subject to assurance by an independent third party.

INPEX will continue to improve the transparency and reliability of disclosure by expanding measured data, improving quantification methods and maintaining third-party assurance.

8. Governance and Outlook

Under its Corporate Position on Climate Change, HSE Policy and HSE Management System, INPEX identifies, assesses and reduces methane emissions across its businesses.

Achieving OGMP 2.0 Gold Standard Reporting demonstrates that INPEX has established a foundation for measurement-based methane emissions management. It does not mark the completion of the company's efforts. INPEX will continue to:

- continue bottom-up quantification and site-level measurement to further improve methane emissions estimation accuracy;
- reduce identified emissions through equipment improvements and operational changes;
- prioritize higher-emitting assets and sources and further advance measurement methods;
- advance initiatives toward zero routine flaring by 2030; and
- work with operators and other partners to improve methane management at non-operated assets and contribute to industry-wide reductions.

Glossary

Term	Description
OGMP 2.0	Oil & Gas Methane Partnership 2.0. UNEP's flagship oil and gas methane reporting and mitigation program, a core component of IMEO, and the sector's only comprehensive, measurement-based international reporting framework.
IMEO	International Methane Emissions Observatory, an initiative of UNEP that integrates company-reported data, satellite observations, scientific studies and other data.
LDAR	Leak Detection and Repair: a systematic process for detecting equipment leaks and repairing identified sources.
OGI	Optical Gas Imaging: infrared camera technology that visualizes otherwise invisible gas leaks.
QOGI	Quantitative Optical Gas Imaging: technology that identifies and quantifies gas leaks.
Reconciliation	An iterative process that compares and reconciles source-level estimates with site-level measurements, investigates discrepancies and develops a more accurate and reliable emissions estimate.
Routine flaring	Flaring conducted during normal operations rather than for safety or emergency reasons.
Venting	The intentional release of gas to the atmosphere without combustion.