

Methane and GHG Emissions Management Issues in LNG

- Policy, markets, and companies - September 2025

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Introduction

As usual, the brief monthly report covers recent global and domestic efforts to manage methane and greenhouse gas emissions in the LNG and energy sectors. International developments include new technologies for low-emission LNG engines, the release of methane risk visualization tools. The report also highlights Japan's initiatives, such as linking methane detection solutions with insurance products and engaging in bilateral cooperation with countries like Tanzania and India on LNG and joint crediting mechanisms for emission reduction projects.

[Global Developments]

Japan's Methane Emission Detection Solution Linked with Insurance: Sompo Japan, JGC Global, and Momentick, launched Japan's first methane emission detection solution linked with an insurance product in late August. Sompo Risk analyses methane emissions using satellite imagery, while Sompo Japan provides risk reports to customers. JGC Global's GHG measurement services and Momentick's software support emission management.

PSE Healthy Energy Releases "Methane Risk Map" Visualizing Hazardous Substances from Methane Leaks. PSE Healthy Energy of the United States released in late August "Methane Risk Map," which visualized hazardous air pollutants associated with methane leaks.

Rystad Whitepaper Well-to-tank emissions assessment 2025: Rystad Energy's "Well-to-tank emissions assessment 2025" published in late August explores the lifecycle impact of LNG as a marine fuel. Upstream and liquefaction operations are responsible for the bulk of CO₂ well-to-tank emissions, but these and downstream bunker distribution both contribute proportionately large shares of methane emissions.

TRC Chair Praises Methane Emission Cuts Amid Production Growth: Texas Railroad Commission Chairman praised in late August reports that oil and gas operators in the Permian Basin had reduced methane intensity by 50% since 2022, despite production reaching record highs. It is possible to achieve both "reliable energy supply" and "environmental protection" according to him.

Darwin LNG Methane Leak Found: Methane had been reportedly leaking from a storage tank.

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WinGD's and Hanwha's LNG carrier engine with Variable Compression Ratio technology: WinGD and Hanwha Engine claimed in early September that they had produced the world's first X72DF-2.2 VCR engine with Variable Compression Ratio technology. The low-emission engine technology for ships using both LNG and diesel fuel is supposed to maximize fuel efficiency and reduce methane slip.

WinGD Joins MAMII: WinGD announced in early September its participation in the Methane Abatement in Maritime Innovation Initiative (MAMII), a global framework aimed at reducing methane emissions from LNG-fueled vessels. WinGD is the first engine design company to join the initiative.

U.S. PHMSA Reportedly Moves Natural Gas Pipeline LDAR Rule to Long-Term Actions: According to media reports in early September, under the previous administration, a draft rule on leak detection and repair (LDAR) for natural gas pipelines had been prepared. The LDAR rule was not removed from the Spring 2025 regulatory agenda but has been moved to the "long-term actions" stage.

Red Cedar Becomes the First Midstream Operator to Achieve MiQ Certification: Red Cedar, a joint venture between the Southern Ute Indian Tribe and Kinder Morgan, has obtained an MiQ certification for its gathering and boosting facility in Colorado. This is the first certification of its kind in the segment.

MiQ Welcomes the Report on the EU Methane Regulation by RMI, EDF, and CATF: In early September MiQ welcomed the report on the implementation of the EU methane regulation by RMI, EDF, and CATF. The proposal is described as cost-effective, immediately implementable, and a practical solution that balances energy security with emissions reduction.

The United States Reportedly Urges Reconsideration of EU Methane Regulation: According to an early September media report, the U.S. administration is pushing for a delay or easing of the EU Methane Regulation.

Canadian Government Weighs Removal of Oil and Gas Sector Emissions Cap: According to mid-September media reports, the Canadian government is considering removing the emissions cap on the oil and gas sector. The measure could be included in the "climate competitiveness strategy" later this year. The removal of the cap is expected to be contingent on advancing projects such as the "Pathways" carbon capture and storage (CCS) initiative.

EPA Proposes Rule to Suspend Greenhouse Gas Reporting Program: The U.S. Environmental Protection Agency (EPA) announced a proposed rule to suspend the Greenhouse Gas Reporting Program (GHGRP).

[Developments in Japan]

Tokyo and Suez Canal Reach Agreement on Green Hydrogen Cooperation: The Tokyo Metropolitan Government's Bureau of Industrial and Labor Affairs and Egypt's Suez Canal Economic Zone announced in late August that they had signed an agreement on green hydrogen cooperation.

JGC Signs an MoU with Tanzania on LNG: JGC Corporation signed in late August an MoU (Memorandum of Understanding) with the government of Tanzania on sharing LNG plant expertise and other cooperation. With an LNG development project in mind, LNG plant knowledge will be shared through talks on key technologies, economics, and other topics.

Mitsubishi Corporation Withdraws from Three Offshore Wind Projects: Mitsubishi Corporation announced in late August termination of offshore wind power projects in Akita and Chiba. Following a reassessment prompted by supply chain disruptions and soaring material costs, the partners concluded that it was difficult to establish a feasible plan.

Japan and India Signs MOU on JCM: The Government of Japan established a Joint Crediting Mechanism (JCM) with the Government of India in late August. The scheme will promote business expansion by Japanese companies in India, while part of the resulting emission reductions will be used by companies and toward Japan's own reduction targets. India is the 31st country to sign a JCM agreement with Japan.

Osaka Gas Invests in Methane Emission Reduction Project in the Philippines: Osaka Gas has invested in a methane emission reduction project in Ilocos Norte, Philippines, led by Green Carbon and aiming to qualify under the Joint Crediting Mechanism (JCM). The project employs Alternate Wetting and Drying (AWD) irrigation technology, which can reduce methane emissions from rice paddies by 30% compared with conventional methods.

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