Methane and GHG Emissions Management Issues in LNG - June 2025 - Policy, markets, and companies -

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Introduction

Momentum is built to reduce methane emissions in the LNG industry. At the LNG Producer Consumer Conference on 20 June 2025, METI (Japan's Ministry of Economy, Trade and Industry) and JOGMEC (Japan Organization for Metals and Energy Security), together with IEA (International Energy Agency), UNEP's IMEO (United Nations Environment Programme's International Methane Emissions Observatory), GIIGNL (International Group of Liquefied Natural Gas Importers), EDF (Environmental Defense Fund), and MiQ (a methane emissions certification body) issued a statement to accelerate the reduction of LNG supply chain emissions.

[Global Developments]

"One Big Beautiful Bill Act" includes repeal of Methane Emissions Reduction Program. The U.S. Senate narrowly passed the "One Big Beautiful Bill Act" on 1 July. The bill includes repeal of the EPA's Methane Emissions Reduction Program, cancels financial incentives for operators to reduce emissions, and delays the fee on excessive methane waste until 2034. The Senate version of the bill returns to the House of Representatives for consideration.

IPAA prefers full repeal of Methane Emissions Reduction Program. Independent Petroleum Association of America (IPAA) expressed in late May disappointment that the complete repeal of the Methane Emissions Reduction Program (MERP) was not achieved in the "One Big, Beautiful Bill."

SouthStar Energy tests MiQ's "MethaneScout". SouthStar Energy Services announced in early June a pilot introduction during the summer of "MethaneScout" MiQ's GHG - methane emissions tracking platform, as the first U.S. retail energy firm. The tool will leverage data based on MiQ's "Supply Chain Emissions Protocol".

Two natural gas producing companies in the United States claim "Net-Zero". EQT Corporation and Range Resources Corporation announced in late June that they have achieved net zero Scope 1 and Scope 2 greenhouse gas emissions, respectively.

EU considers relaxing methane emissions regulations for gas imports. At the EU Energy Ministers' meeting held on 16 June there was consideration of potential relaxation or

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"simplification" of the methane regulations. These regulations were adopted in May 2024, but with the EU moving away from Russian gas and increasing LNG imports from the United States, there are concerns that compliance with these regulations is difficult.

NGO EIA's report on EU methane regulations. NGO EIA (Environmental Investigation Agency) released in early June a report on EU methane regulations. The report counters the claims made by some industry groups and member states that reducing methane emissions from domestic and imported fossil fuels would threaten energy security.

Percepto's AI-powered methane emission detection system for drones. Percepto announced in the middle of June an AI-driven methane emission detection system. By automating Optical Gas Imaging (OGI) surveys using autonomous drones and combining them with AI developed for remote operations and upstream oil and gas operators, the system enables real-time emission detection.

ASEAN Centre for Energy's "Methane Management Roadmap for Oil and Gas in ASEAN". The ASEAN Centre for Energy (ACE) released in the middle of June "Methane Management Roadmap for Oil and Gas in ASEAN." The report outlines strategies for methane emission reduction. It emphasizes the importance of leakage detection technologies, standardized reporting frameworks, the introduction of certification programs, and the use of low-cost technologies (such as LDAR and flare reduction).

IEA's report on GHG emissions from the LNG value chain. IEA released a new report presenting a comprehensive estimate of GHG emissions from the global LNG value chain and key opportunities for reduction. The annual emissions are estimated at 350 million tonnes, with 70% from CO_2 and 30% from methane. The average GHG emission intensity of LNG is estimated at 20 g CO_2-eq per MJ, which is higher than the average for natural gas overall (12 g). However, more than 99% of LNG consumed in 2024 had lower life-cycle emissions than coal, averaging 25% less globally. The report cautions that comparisons with coal alone risk setting unambitious climate targets. It finds that over 60% of emissions from LNG supply can be reduced using existing technologies, with methane abatement alone able to cut nearly 25% of total emissions - half of which can be achieved at no net cost. Further reductions are possible through flaring mitigation at LNG facilities and associated gas fields.
Japan strengthens international collaboration to reduce GHG emissions from the LNG

[Developments in Japan]

Kyushu Electric Power plans to invest JPY 1.5 trillion in decarbonization over the next 11 years. Kyushu Electric Power announced in late May a management plan to invest JPY 1.5 trillion over the next 11 years. The company plans to advance offshore wind, pumped storage, and battery development, aiming to expand sales by 37% compared to 2024, reaching 37 TWh with 10 GW renewable energy capacity. In thermal power, the company

plans to achieve 20% ammonia co-firing with coal, 10% hydrogen co-firing with LNG, and develop CCUS projects.

METI offers subsidies for fuel costs for hydrogen fuel cell (FC) trucks. METI (Japan's Ministry of Economy, Trade and Industry) offers subsidies for fuel costs for hydrogen fuel cell (FC) trucks and buses in six prefectures. The subsidy is set at JPY 700 per kg of hydrogen, covering about three-quarters of the price difference between hydrogen and diesel fuel. Fukushima, Tokyo, Kanagawa, Aichi, Hyogo, and Fukuoka are designated as "priority regions" for FC commercial vehicles. Around 90 hydrogen stations in the priority regions will receive subsidies to cover hydrogen procurement costs.

Tokyo Gas' agreement with Tokyo Metropolitan Government on carbon neutrality. Tokyo Gas signed an agreement with the Tokyo Metropolitan Government to accelerate efforts toward carbon neutrality in late May. The agreement includes collaboration on areas such as stabilizing energy supply and demand, expanding the use of renewable energy, utilizing green hydrogen, promoting biofuels and synthetic fuels.

Toho Gas' project for the design and verification of hydrogen supply infrastructure at Nagoya Port. Toyota Tsusho, Taiyo Nippon Sanso, and Toho Gas announced that a hydrogen supply infrastructure design and verification project for Nagoya Port was selected by NEDO. The initiative is based on the findings of a 2022 study that identified a potential annual hydrogen demand of up to 1,500 tonnes around Nagoya Port. The project is targeting logistics vehicles and large cranes within the port area.

The GX Promotion Act amendment has been enacted. The revised GX Promotion Act, which mandates participation in the emissions trading system for companies emitting 100,000 tonnes or more of CO_2 annually starting in fiscal year 2026, was enacted in late May.

Saibu Gas' "Methanation Local Production for Local Consumption Model". The operation of the demonstration facility for the "Regional Co-Creation and Cross-Sector Carbon Neutral Technology Development and Demonstration Project," selected by the Ministry of the Environment for fiscal year 2023, started at Hibiki LNG in early June.

CLEAN expands. At the LNG Producer Consumer Conference on 20 June, JAPEX, ENEOS, and ITOCHU joined the CLEAN Initiative, bringing the total number of participating companies to 27.

Japan Strengthens International Cooperation on Methane Emissions Data Transparency. METI, MOE (Ministry of Environment), JOGMEC, NIES issued a statement with IMEO on: 1. Collaboration under the CLEAN Initiative; 2. IMEO's contribution to CLEAN Annual Report; 3. Cooperation in the Southeast Asia METEC; 4. Integration of GOSAT-GW satellite data.

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