

Methane and GHG Emissions Management Issues in LNG

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- Policy, markets, and companies -

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Introduction

As the issue of GHG management, notably methane emissions management, is becoming more prominent in the LNG industry, a new periodical information brief is launched, to provide an overview on global and Japanese developments, focusing on company and government initiatives related to the LNG and natural gas value chain.

Global Developments

EU gas industry criticizes EU methane regulation - In late March, Eurogas (A European gas industry association) stated that the EU methane regulation poses "challenges to ensuring the flexibility, affordability, and security". According to the regulation, by 2030 imported gas must demonstrate compliance with methane intensity thresholds.

Lithuania wants EU methane regulation review to boost U.S. LNG imports - In early April, Lithuanian Energy Minister stated that the EU should consider revising its methane regulations to increase imports of U.S. LNG.

EC reportedly considers revisions to methane regulations on U.S. LNG - EC (European Commission) reportedly considers easing methane regulations on gas imported from the United States, according to media reports in late April.

Wärtsilä new solution to reduce methane slip by up to 75% - In early April, Wärtsilä presented a new solution for its dual-fuel engine (Wärtsilä 50DF) that reduces methane slip by up to 75%, converting 50DF to operate in spark-ignited gas (SG) mode, enabling a more optimized combustion process.

Singapore's MPA receives 14 proposals to expand LNG bunkering supply - Maritime and Port Authority of Singapore has received 14 proposals from 18 companies through the Expression of Interest (EOI) process aimed at LNG supply as a marine fuel. 8 include bio-methane and e-methane.

U.S. EPA may reduce GHG emissions data collection - Media reports in early April suggested the EPA (E.S. Environmental Protection Agency) was attempting to reduce reporting requirements for GHG emissions data.

TotalEnergies strengthens its methane emissions reduction target for 2025 - TotalEnergies' sustainability progress report released in late March shows the company has

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achieved its 2025 methane emissions reduction target (a 50% reduction compared to 2020) in 2024. The company aims to achieve 60% by 2025 and 80% by 2030.

IEA says that methane emissions from fossil fuels remain high - IEA's (International Energy Agency) Global Methane Tracker 2025 - released in early May - highlights that methane emissions from fossil fuels remain high. The report includes estimates of emissions from the supply and use of fossil fuels as well as bioenergy. Emissions from decommissioned facilities are also included.

The EU member states consider easing methane emissions regulations - According to a draft document for the EU (European Union) Energy Ministers' meeting in June, member states are calling for energy sector regulations to be included in the "simplification" agenda.

The U.S. House of Representatives plans to withdraw funding for methane emission measures - The Republican majority in the U.S. House of Representatives proposed in early May a budget plan to reduce and repeal clean energy support under the Inflation Reduction Act (IRA). The plan includes the gradual elimination of EV subsidies and renewable energy tax credits, along with the easing of emissions regulations. Some industry incentives, such as those for carbon capture technologies, would be maintained.

Developments in Japan

MOL purchases CO₂ removal credits derived from direct ocean capture - In late March, Mitsui O.S.K. Lines announced a purchase of CO₂ removal credits derived from Direct Ocean Capture technology from U.S.-based Captura. MOL is expected to buy 30,000 tonnes of DOC-derived CO₂ removal credits from Captura by 2030.

Alaska emphasizes U.S.-Japan relations through Alaska LNG development - In late March, the Office of the Governor of Alaska statement pointed to stronger U.S.-Japan relations through Alaska LNG development.

MLIT standardizes ammonia fuel tanks for ships - In late March, the Ministry of Land, Infrastructure, Transport, and Tourism announced the standardization of Type-C pressure vessels for ammonia fuel tanks, to strengthen the domestic supply chain for next-generation fuel ships.

JERA makes FID on low-carbon ammonia in the United States - In early April, JERA, CF Industries and Mitsui & Co., made an FID (final investment decision) on the "Blue Point" low-carbon ammonia project in Louisiana, with an annual capacity of 1.4 million tonnes using natural gas as a feedstock. Commercial operation is scheduled in 2029.

MOL plans to equip Tokyo Gas new LNG carrier with *Wind Challenger* - In early April, Mitsui O.S.K. Lines revealed plans to equip a new LNG carrier to be chartered by Tokyo LNG Tanker Co., Ltd. with two *Wind Challenger* propulsion units. This will be the second

LNG carrier in the world to be equipped with the *Wind Challenger*.

Hokuriku Electric Power to construct a second LNG unit at the Toyama Shinko Plant - Hokuriku Electric Power plans to construct a second LNG unit at the Toyama Shinko Power Plant. The company plans to retire the Coal Unit 2 (250 MW) and the Oil Unit 1 (240 MW). The new LNG Unit 2, with a capacity of 600 MW, is scheduled to start operation in fiscal year 2033.

Japan and Vietnam sign an MOU on energy transition, selecting 14 projects - Japan's METI (Ministry of Economy, Trade and Industry) and Vietnam's Ministry of Industry and Trade signed an MOU (Memorandum of Understanding) on cooperation in energy transition in late April. As part of the Asia Zero Emission Community (AZEC) initiative, they will promote 14 projects, including LNG power generation, ammonia co-firing, and power grid development. The agreement is set for three years with automatic renewal.

Marubeni joins ExxonMobil's low-carbon hydrogen and ammonia project - Marubeni participated in ExxonMobil's low-carbon hydrogen and ammonia project in Baytown, Texas in early May, along with a long-term supply agreement for low-carbon ammonia. The project plans to produce 0.9 million tonnes per year of low-carbon hydrogen and 1 million tonnes of low-carbon ammonia. Marubeni plans to supply 0.25 million tonnes per year of ammonia to Kobe Steel.

Tokyo Gas signs an agreement with the Tokyo Metropolitan Government - Tokyo Gas has been selected for the "Green Methane Production (Synthesis) Project Using Green Hydrogen Produced in Tokyo and Carbon Dioxide from Sewage Sludge". The project uses green hydrogen produced in Tokyo and CO₂ from biogas derived from sewage sludge as raw materials to produce e-methane. This initiative is the first in Japan to continuously supply the mixed gas containing CH₄ and CO₂ from sewage sludge directly through piping without separating them, enabling e-methane production.

ENEOS plans strategic investments in LNG, biofuels, and other areas - ENEOS announced its medium-term management plan for fiscal years 2025 to 2027, with a total strategic investment of JPY 740 billion over the period: JPY 310 billion for low-carbon areas such as LNG development, JPY 250 billion for decarbonization sectors including renewable energy, and JPY 180 billion for foundational and materials sectors.

ENEOS considers a new 750 MW LNG-fired power plant in Kawasaki - ENEOS Power plans to build a new 750 MW LNG-fired power plant in Kawasaki City, aiming to begin operations in the first half of 2033. This will be the first large-scale thermal power project developed solely by the ENEOS Group.

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