

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

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Introduction

Japan's GOSAT-GW satellite was launched, expected to enhance capability to capture more information on GHG emissions. Japanese companies advance programs to reduce GHG emissions and promote cleaner energy.

[Global Developments]

EQT claims net-zero Scope 1 and 2. In 2024 ESG Report “Promises Made, Promises Delivered” released in late June 2025, EQT claims that it has become the world’s first large-scale, traditional energy company to achieve net-zero Scope 1 and 2 GHG emissions. EQT also reports a corporate-wide Scope 1 methane intensity of 0.0070%.

Range Resources also claims net-zero Scope 1 and Scope 2. In 2024-2025 Corporate Sustainability Report released in late June 2025, Range Resources (RRC) claims net-zero Scope 1 and 2 GHG emissions, reaching its 2025 target one year ahead of schedule. RRC reported a 43% reduction in GHG intensity and an 83% reduction in methane emissions intensity compared to 2019.

GOSAT-GW launched. Japan's GOSAT-GW satellite was launched in late June from the JAXA Tanegashima and entered its orbit. Since the first GOSAT in 2009, the GOSAT series has been the world’s only satellite program capable of continuously monitoring both CO₂ and methane across the entire globe for 16 years. GOSAT-GW significantly increases the volume of data collected compared to its predecessors.

An enabling act concerning CCS, hydrogen, and methane emissions was approved in Italy. Italy’s Cabinet approved in late June a draft enabling act to define the legal framework for CCS, hydrogen, and methane emissions reduction in the energy sector. The measure aims to establish an integrated regulatory framework for CCS, hydrogen sector regulations, and implement EU Methane Regulation.

MethaneSAT lost communication. MethaneSAT satellite lost communication on 20 June and is deemed unrecoverable. However, the project itself will continue. MethaneSAT had been collecting methane emissions data for a year and was one of the most advanced satellites for tracking methane emissions from oil and gas production.

"One Big Beautiful Bill Act" enacted. On 4 July 2025, the "One Big Beautiful Bill Act" was enacted in the United States. The legislation includes provisions to rescind the remaining

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unused funding for the Methane Emissions Reduction Program (MERP) and to postpone the implementation year of the methane fee from 2024 to 2034.

Ship passage was said to trigger seabed methane release. A study by Chalmers University of Technology in Sweden argues that significant amounts of methane can be released by ship traffic in shallow waters. According to the study, the passage of ships causes pressure changes and water disturbance, which trigger the release of methane trapped in seabed sediments.

[Developments in Japan]

"K" Line commences operation of its first vessel powered by bio-LNG. Kawasaki Kisen Kaisha ("K" Line) has commenced its first voyage using bio-LNG fuel on the LNG-fueled car carrier OCEANUS HIGHWAY. Approximately 500 tonnes of liquefied biomethane (LBM), derived from renewable resources, was supplied by Shell.

INPEX establishes a renewable energy subsidiary in Indonesia. INPEX has established PT INPEX Renewable Energy Indonesia in Jakarta to expand its renewable energy business in Indonesia. INPEX aims to strengthen its involvement in geothermal power projects and pursue opportunities, supporting the diversification of its power generation portfolio under the "INPEX Vision 2035".

The Bonaparte CCS project has been granted Major Project Status in Australia. INPEX announced in early July that the Bonaparte CCS project, developed offshore northern Australia through its subsidiary IBEP and in collaboration with TotalEnergies and Woodside, had been granted Major Project Status by the Australian federal government.

ENEOS to invest in an Australian natural hydrogen development company. ENEOS Xplora has decided to invest AUD 4.5 million (JPY 430 million) in Gold Hydrogen in Australia engaged in the exploration and development of natural hydrogen and helium. Natural hydrogen is generated in nature and exists underground.

KHI's demonstration project for low-concentration CO₂ capture. Kawasaki Heavy Industries in mid-July revealed a demonstration project at its Kobe Works to capture low-concentration CO₂ from ambient air and flue gas from power plants, by utilizing a newly developed amine-based solid sorbent. The DAC (Direct Air Capture) facility aims to capture 0.5 - 1 million tonnes of CO₂ annually by around 2030.

ITOCHU to build the world's first ammonia bunkering vessel. ITOCHU Corporation has signed a contract with Sasaki Shipbuilding and Izumi Steel Works to construct the world's first ammonia bunkering vessel. Scheduled for completion by September 2027, the vessel will begin demonstration operations in Singapore in October 2027. It will be capable of carrying 5,000 m³ of ammonia.

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