

Methane and GHG Emissions Management Issues in LNG

- Policy, markets, and companies - November 2025

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Introduction

As usual, the brief monthly report for November 2025 covers global and domestic efforts to manage methane and greenhouse gas emissions in the LNG and energy sectors. Multiple nations reinforced their commitments by signing a COP30 methane reduction declaration and launching new programs. Technological advancements featured practical mitigation solutions, including the successful trial of a plasma-catalytic methane reduction system for LNG carriers. Japanese corporate activities have been observed on regional decarbonization technologies and investments in developing economies.

[Global Developments]

IMO Net-Zero Framework is postponed. The Marine Environment Protection Committee (MEPC) of the International Maritime Organization (IMO) decided in the middle of October to postpone for one year the adoption of the draft amendments to MARPOL Annex VI, which include the Net-Zero Framework.

Wärtsilä renews lifecycle agreement with TMS Cardiff for LNG carriers. Finland's Wärtsilä has extended its lifecycle agreement with Greece's TMS Cardiff Gas for another five years, to support the two-stroke main engines of seven LNG carriers. The partnership aims to minimize operational downtime risks and maintain high reliability and availability in response to growing global LNG demand.

IMEO releases *Eye on Methane 2025*. IMEO (International Methane Emissions Observatory) released in late October "*Eye on Methane 2025*", warning that global efforts to curb methane emissions remain insufficient. Of roughly 3,500 leak alerts detected by satellites, governments and companies responded to only 12%. Although more than 150 countries have pledged to cut methane emissions by 30% by 2030, actual emissions continue to rise.

Companies to expand JCM by *Alternate Wetting and Drying (AWD)* irrigation technology. Eight Japanese companies, including Green Carbon, established in late October the "Rice Paddy JCM Consortium" to promote JCM credits derived from rice cultivation. The consortium utilizes *Alternate Wetting and Drying (AWD)* irrigation technology in the Philippines to analyse rice yields, methane reduction effects, and weather-related risks.

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The United Kingdom unveils new Methane Action Plan. The British government announced in late October a new Methane Action Plan. In the fuel supply sector, the plan focuses on achieving zero routine flaring by 2030, enhancing leak detection, and promoting clean energy and biomethane. The government intends to expand support to other countries through Climate and Clean Air Coalition (CCAC) and Global Methane Pledge (GMP), while addressing methane emissions associated with imported fuels.

Successful test of plasma-catalytic methane reduction system. Greece's Daphne Technology announced in late October that a trial with Maran Gas achieved a methane slip reduction of 4 ± 2 g/kWh. The LNG carrier *Maran Gas Chios* was the first to be equipped with the *SlipPure™ Plasma-Catalytic Methane Slip Aftertreatment* system. The company plans to further develop the technology for onshore and maritime applications, in combination with its commercialized *PureMetrics™* emissions monitoring platform.

EDF and others urge EPA to maintain GHGRP. EDF (Environmental Defense Fund) and 67 organizations oppose EPA's proposed repeal of the *Greenhouse Gas Reporting Program (GHGRP)*. The groups emphasize that the program has, for over a decade, provided essential data on climate pollution from major emission sources, and warn that its repeal lacks legal justification while undermining transparency and competitiveness.

Industry supports continuation of GHGRP. U.S. Chamber of Commerce and its coalition industry members, including USLNG Association (LNG Allies), supported the continuation of the GHGRP. ExxonMobil said that "the GHGRP is a critical element. . . to obtain 'country equivalency status' under the European Union's (EU) Methane Emissions Regulation. . ."

Columbia's SierraCol Energy achieves OGMP 2.0 Gold Standard. Colombia's SierraCol Energy announced in early November that it had achieved the "Gold Standard" under the OGMP 2.0 framework. SierraCol met all Gold Standard requirements by reaching Level 5 reporting across all its key assets in just two years since joining the initiative.

Canadian government considers removal of emissions cap. In its 2025 federal budget, the Canadian government indicated the possibility of removing the oil and gas emissions cap. The budget notes that as the national industrial carbon pricing system is strengthened and support for carbon capture and storage (CCS) deployment expands, "the cap would no longer be required."

Countries sign methane reduction declaration at COP30. The declaration "*Drastically Reducing Methane Emissions in Global Fossil Fuel Sector*" was signed in early November ahead of COP30 by United Kingdom, Japan, Germany, France, Canada, Kazakhstan, and Norway, supported by European Commission, IEA (International Energy Agency), and OLADE (La Organización Latinoamericana de Energía). They support the

actions to implement robust MMRV and to establish a panel of governments. . .to work towards near-zero methane intensity marketplace.

Super Pollutant Country Action Accelerator is launched. CCAC (Climate and Clean Air Coalition) launched in early November the *Super Pollutant Country Action Accelerator*, a new 3-year, programme to help governments in ODA-eligible countries to drive deep and sustained reductions in super pollutant emissions. The first cohort of seven countries - Brazil, Cambodia, Indonesia, Kazakhstan, Mexico, Nigeria, and South Africa - was announced at COP30. These countries will collectively receive an initial support package of USD 25 million.

Brazil, China and the United Kingdom host a methane summit. Brazil, China and the United Kingdom hosted a methane summit in early November, bringing together representatives from Barbados, France, Germany, CCAC, and Bloomberg Philanthropies. Leaders underscored the urgent need to tackle the "other half" of climate change, including methane, nitrous oxide, hydrofluorocarbons (HFCs).

"Food Waste Breakthrough" to halve waste and reduce methane emissions. UNEP (United Nations Environment Programme) launched in the middle of November *"Food Waste Breakthrough"* initiative to halve global food waste by 2030 and reduce methane emissions by up to 7%. The GEF (Global Environment Facility) will provide USD 3 million over four years to support food-waste prevention and methane mitigation in developing countries. Brazil, Japan, and the United Kingdom will serve as country champions.

JOGMEC launches CLEAN Annual Report 2025. According to *"CLEAN Annual Report 2025"* the initiative welcomed three new members - ITOCHU Corporation, JAPEX, and ENEOS - as well as ADNOC, MiQ, and bp as supporters, bringing total participation to 27 companies in two years. The report assesses methane intensity and mitigation efforts across 22 projects linked to LNG SPAs (sale and purchase agreements) with Japanese and Korean buyers.

UNEP releases "Global Methane Status Report 2025". UNEP released in the middle of November *"Global Methane Status Report 2025"*. The report notes significant progress since the launch of the Global Methane Pledge in 2021, but stresses that further action is required to achieve GMP goal of reducing methane emissions by 30% from 2020 levels by 2030. UNEP warns that fully deploying already proven and readily available mitigation measures is essential to close the gap.

Increasing global efforts to reduce methane emissions. IMEO newsletter offers an overview of increasing global efforts to reduce methane emissions. The newsletter highlights the crucial role of credible, real-world data in meeting GMP target of a 30% reduction by 2030. Key developments include the Super Pollutant Country Action Accelerator, new

initiatives targeting the waste and agriculture sectors, and an IMEO-backed ministerial meeting hosted by Japan.

[Developments in Japan]

JERA's Joint Study on LNG Value Chain in Indonesia. JERA and PT PLN Energi Primer Indonesia (PLN EPI) announced in late October initial findings of their joint study on developing an LNG value chain in Indonesia. Amid rising power demand, declining domestic gas resources, and the need for decarbonization, the two companies agreed to continue their collaboration.

MOL partners with Kumejima to advance ocean thermal energy conversion. MOL (Mitsui O.S.K. Lines) announced in late October a partnership agreement with Kumejima Town in Okinawa. The collaboration will focus on decarbonization technologies such as Ocean Thermal Energy Conversion (OTEC), the utilization of deep ocean water, and Direct Ocean Capture (DOC) of CO₂, while promoting regional development.

Wärtsilä signs 9-year lifecycle agreement with Hankyu Ferry. Wärtsilä signed in early November a 9-year lifecycle agreement with Hankyu Ferry covering the advanced vessels *Yamato* and *Settsu*. The agreement includes remote operational support, predictive maintenance through "Expert Insight," and condition monitoring, to ensure uninterrupted operations, optimize fuel efficiency, and reduce emissions.

32 "Midori Infinity" supporters issue joint statement. Japan's Ministry of Agriculture, Forestry and Fisheries hosted a seminar at COP30, where 32 private companies supporting the "Midori Infinity" initiative released a joint statement. The statement highlights the need to promote the overseas deployment of GHG reduction technologies that contribute to food security, particularly in addressing the growing climate challenges in the agriculture and livestock sectors.

Sumitomo Corporation invests in India to advance biomethane. Sumitomo Corporation announced in the middle of November an acquisition of a partial stake in TruAlt, India's largest ethanol producer. The companies plan to build 16 compressed biomethane gas (CBG) production facilities, with phased operations beginning in 2026. Total production is expected to reach 320 tonnes per day, primarily as automotive fuel. Sumitomo also aims to expand collaboration with TruAlt into bioethanol, and SAF.

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