

## Methane and GHG Emissions Management Issues in LNG

- Policy, markets, and companies - August 2025

Hiroshi Hashimoto and Satoshi Kihara\*

### 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. Japan's notable initiatives include Tokyo's hydrogen co-firing boiler and Asahi Kasei's high-purity biomethane production, pioneering use of LiDAR for methane visualization.

### [Global Developments]

**MiQ points to certified gas as key to reducing methane emissions.** MiQ welcomed in late July the IEA report "Prospects for Natural Gas Certification" and supported its recommendation to establish minimum criteria for certified gas in order to ensure transparency and credibility of emissions information.

**U.S. EPA to delay methane regulations on drilling for 18 months.** EPA (U.S. Environmental Protection Agency) proposed in late July an 18-month extension, until January 2027, for compliance with requirements to install methane control devices, continuous monitoring, and leak detection systems, as well as to conduct leak repairs in gas and oil drilling.

**ENEOS Xplora's pilot test visualizing methane emissions with LiDAR.** Japan's ENEOS Xplora Inc. announced in late July completion of Japan's first pilot test of visualizing methane emissions from natural gas production using fixed continuous monitoring with LiDAR ("Light Detection and Ranging," a technology that determines object distance and shape).

**Malaysia launches ASEAN-Korea Methane Mitigation Project.** Malaysia launched in late July "ASEAN-Korea Cooperation for Methane Mitigation (AKCMM)" with support from the ASEAN-Korea Cooperation Fund. The Global Green Growth Institute (GGGI) will implement the initiative, while Malaysia will strengthen its leadership role.

**EU maintains methane regulations, potentially introducing flexibility.** The EU reportedly intends to allow some flexibility in implementation of the methane regulation.

**Tokyo Gas demonstrates a method for measuring and visualizing methane concentrations.** Tokyo Gas Co., Ltd. has started a demonstration study of a method for measuring and visualizing methane concentrations using its laser-based detection technology. JAXA has commissioned the company to evaluate whether the method can be used to measure emissions from rice paddies.

---

\* The writers belong to the Energy Security Unit.

**BKV announces a deal for Carbon Sequestered Gas (CSG).** BKV Corporation announced in the middle of August a deal for Carbon Sequestered Gas (CSG) with Gunvor providing a commitment for Gunvor to purchase, market, and sell CSG - a differentiated, premium commodity market product supported by BKV's CCUS business, including the Barnett Zero Project.

**Groups file a petition to nullify EPA's methane regulation delay.** Groups petitioned the D.C. Circuit Court of Appeals to nullify the EPA's "2024 methane regulation delay rule". This petition follows the lawsuit of 31 July challenging the delay and represents an additional step to reinstate the regulation without waiting for the court's final ruling.

### **[Developments in Japan]**

**Tokyo launches Japan's first hydrogen co-firing boiler for district heating.** The Tokyo Metropolitan Authority has begun operating Japan's first "hydrogen co-firing boiler" using city gas and hydrogen at the Aomi South Plant, utilizing green hydrogen from Yonekurayama in Kofu. In addition to district heat supply, the system is combined with fuel cells and solar power to provide lighting for nearby facilities.

**Asahi Kasei produces methane from sewage sludge with high purity and high recovery.** Asahi Kasei has demonstrated a biogas purification system at a sewage treatment plant in Kurashiki, Okayama, achieving 97% purity and 99.5% recovery of biomethane. The system combines zeolite technology with PVSA (Pressure Vacuum Swing Adsorption) to ensure stable high performance.

**Kawasaki Heavy Industries begins construction of a large-scale liquefied hydrogen storage tank.** Kawasaki Heavy Industries has begun assembling a 50,000 m<sup>3</sup> aboveground flat-bottom cylindrical liquefied hydrogen storage tank at its Harima Works. As part of a NEDO demonstration project, the tank will be installed at a storage terminal under construction in Kawasaki's Ogishima area.

**Panasonic and Osaka Gas develop the first hydrogen co-firing absorption chiller-heater.** Panasonic Corporation, Osaka Gas Co., Ltd., and Daigas Energy Co., Ltd. have developed the first absorption chiller-heater capable of co-firing hydrogen and natural gas. The system supports a multi-fuel operation with a hydrogen-to-natural gas mixing ratio ranging from 0% to 100%.

**Tokyo Metropolitan Authority and Suez Canal Economic Zone signs an MoU on Green Hydrogen.** The Bureau of Industrial and Labor Affairs of the Tokyo Metropolitan Government and the Suez Canal Economic Zone (SCZONE) announced in late August the signing of an MoU (Memorandum of Understanding) on green hydrogen cooperation.

Contact: [report@tky.ieej.or.jp](mailto:report@tky.ieej.or.jp)