

# News Release

**Kanadevia**  
Technology for people and planet

**Kanadevia Corporation**  
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## **Contract Executed with Oman LNG for Pilot Plant Pre-FEED and Commercial Plant Concept Study**

Kanadevia Corporation signed a contract with Oman LNG LLC (hereinafter referred to as OLNG) for Pilot Plant pre-FEED (Front Engineering and Design) and Commercial Plant Concept Study.



Contract signing announcement ceremony at the 'LNG Producer-Consumer Conference 2025' held on June 20, 2025. (From right: Minister of Economy, Trade and Industry Yoji Muto, Oman LNG CEO Hamed Al Naamany, Junichi Yamamoto, Executive Officer and Head of Decarbonization Business Unit at our company)

Oman is geographically well-suited for renewable energy such as solar and wind power and Oman is positioning the production of green hydrogen using renewable energy as a central element of its energy strategy as outlined in initiatives such as "Oman Vision 2040" and the "National Green Hydrogen Strategy." Additionally, Oman's Net Zero program is actively pursuing technologies such as the utilization of CCU (Carbon Capture and Utilization), which recycles emitted CO<sub>2</sub>, and Kanadevia's methanation technology is one of the technologies to be applied and contributes to achieve circular Carbon economy linked to the Sultanate's of Oman National Green Hydrogen Strategy.

OLNG is assessing the development and construction of a methanation plant that converts carbon dioxide utilizing green hydrogen into "e-methane" (synthetic methane) through methanation process, with a world-leading production scale of 18,000 Nm<sup>3</sup>/h of e-methane. In the Concept Study, the technical and commercial study will be conducted for the production and processing of hydrogen, carbon dioxide, and e-methane to verify and establish the components necessary for the construction of a commercial plant. In the Pre-FEED, tasks such as conceptual design and cost estimation will be carried out for the pilot plant (e-methane production volume: 1,200 Nm<sup>3</sup>/h), which is planned to be constructed as a preliminary stage before building the commercial methanation plant.

The pilot plant consists of a seawater desalination system, which converts seawater into pure water and fed to a water electrolysis system to generate hydrogen from fresh water, and a methanation system that reacts hydrogen with carbon dioxide to produce e-methane. In the Pre-FEED phase, works will be carried out for establishing the scaling of the current operational Methanation and components related to these systems following by estimating costs related to EPC (engineering, procurement, and construction) for the Pilot Plant and lifecycle assessment utilizing Green Hydrogen as part of the feedstock.

Since the 1970s, Kanadevia has accumulated its expertise in constructing seawater desalination plants in the Middle East. Currently, our wholly-owned subsidiary Osmoflo Holdings Pty Ltd (Australia) is engaged in water treatment operations in the Middle East. Further, through our wholly-owned subsidiary Kanadevia Inova AG (Switzerland), we contribute to the Middle East in the field of Waste to Energy plants. OLNG highly evaluated our group's comprehensive plant construction capabilities, as well as our possession of technologies related to seawater desalination, water electrolysis, and methanation, which brings overall design and construction of the overall system.

In December 2022, the governments of Japan and Oman signed a "Memorandum of Cooperation on hydrogen, fuel ammonia and carbon recycling including methanation." onto materialize the philosophy of the Memorandum of Cooperation, our company and OLNG signed a "Memorandum of understanding cooperation in the field of Methanation" in March 2024. The contract we have executed with Oman LNG advances the initiatives of both governments and paves the way for the realization of a commercial methanation plant. Japan and Oman aim to achieve net-zero greenhouse gas emissions by 2050, and our company is committed to contributing to global decarbonization through the social implementation of methanation, by harnessing the collective strength of our group.

- Methanation: In this project, the Sabatier reaction methanation is adopted. Discovered by scientist Paul Sabatier in 1911, this chemical reaction synthesizes methane from carbon dioxide and hydrogen. It involves reacting hydrogen and carbon dioxide in a reaction vessel filled with catalysts to synthesize methane, the main component of natural gas.

The overview of this project is as follows:

1. Contract Counterparts : Oman LNG LLC (Oman)
2. Scope of work: Concept Study related to the methanation commercial plant (verification and establishment of components and process) and Pre-FEED for the construction of pilot plant (e-methane production volume of 1,200 Nm<sup>3</sup>/h).