

Osaka Gas' e-methane joint project in Peru with Marubeni and PERU LNG advances to the Pre-FEED phase

August 22, 2023
Osaka Gas Co., Ltd.

Osaka Gas Co., Ltd. (Osaka Gas) today announced the signing of an agreement with Marubeni Corporation and PERU LNG S.R.L. (Peru LNG) for a joint detailed study on producing and liquefying e-methane¹ at PERU LNG's natural gas liquefaction terminal in Peru and delivering such e-methane to Japan, Peru and other areas. These three partners will work on this study as a Pre Front-End Engineering and Design (Pre-FEED) stage activity following a joint feasibility study launched in July 2022² on their collaboration to produce approximately 60,000 tons of e-methane annually by 2030.

In this detailed study, Osaka Gas and its partners plan to discuss terms and conditions for e-methane feedstock procurement, examine e-methane plant construction specifications, and analyze the business feasibility for producing, liquefying, and supplying approximately 60,000 tons per year (equivalent to 10,000 Nm³/h) of e-methane to the markets in Japan and Peru. Once the Pre-FEED is concluded, the three partners will assess the results to determine if an investment decision could be made by 2025 to commence e-methane production by 2030.

In the previous study, the three partners confirmed the feasibility of producing e-methane at a competitive cost at PERU LNG's natural gas liquefaction terminal, using carbon dioxide (CO₂) recovered from the terminal facility and green hydrogen³ generated from competitive renewable energy, such as hydro-, solar, and wind power, abundantly available in the area where the terminal is located.

1 Synthetic methane produced from CO₂ and non-fossil fuel-based feedstock, such as green hydrogen

2 Announced on July 14, 2022, in a press release: "Osaka Gas Announces Feasibility Study into Methanation Project in Peru: Syngas Production and Marketing in Collaboration with Marubeni and PERU LNG"

https://www.osakagas.co.jp/en/whatsnew/_icsFiles/afieldfile/2022/07/13/220714_1.pdf

3 Hydrogen generated by using renewable energy without emitting CO₂ in the process

About e-methane

e-methane is a new energy source seen as a solution to a seamless energy transition to a carbon neutral society. Consisting of the main component of natural gas, e-methane is compatible with the existing gas infrastructure, including LNG terminals and gas equipment for consumers. Introducing e-methane to energy markets will save the social cost of replacing or modifying the existing gas infrastructure, as required in the case of other options, such as hydrogen, through the continued utilization of those facilities.

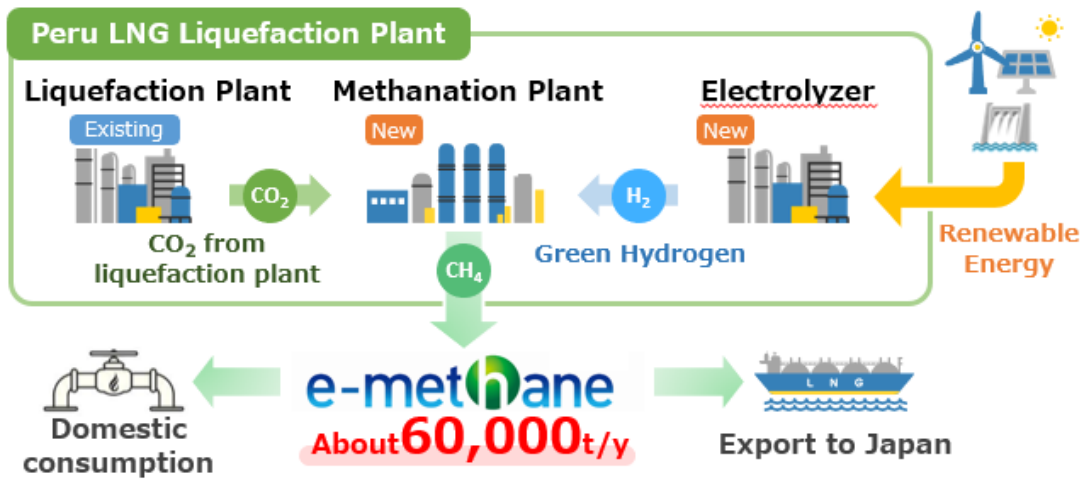
About Osaka Gas

Osaka Gas aims to achieve carbon neutrality across its corporate group (Daigas Group) by 2050 as a goal set in the Carbon Neutral Vision released in January 2021 and Energy Transition 2030 released in March 2023. To realize this ambition, the company pursues net zero solutions, including e-methane, and drives e-methane technology development through R&D activities and demonstration projects in Japan to promote its wide usage. It also proceeds with several feasibility studies to produce e-methane in strategic locations, such as North America, South America, Australia, the Middle East, and Southeast Asia.

PERU LNG's natural gas liquefaction terminal



Project Scheme



Project Partners

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|----------------|---|
| Name | Marubeni Corporation |
| Location | 4-2 Ohtemachi 1-chome, Chiyoda-ku, Tokyo, Japan |
| Established | December 1, 1949 |
| Representative | Masumi Kakinoki, President and CEO |

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|----------------|---|
| Name | PERU LNG S.R.L. |
| Location | Calle Las Palmeras 435, Edificio PAL 400, Oficina 302, San Isidro, Lima, Peru |
| Established | March 24, 2003 |
| Representative | Maria Julia Aybar, Gerente General |