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INPEX CORPORATION
Osaka Gas Co., Ltd.
Mitsubishi Heavy Industries, Ltd.

Operations Started for the Nagaoka Methanation Demonstration Utilizing the CO2NNEX® Digital Platform for Transfer and Management of e-Methane Clean Gas Certificates

Tokyo, May 28, 2026 – INPEX CORPORATION (INPEX), Osaka Gas Co., Ltd. (Osaka Gas), and Mitsubishi Heavy Industries, Ltd. (MHI) today started operations of a system to facilitate the transfer and management of Clean Gas Certificates, part of a demonstration project being jointly conducted by INPEX and Osaka Gas aimed at developing practical technology for the reduction and effective utilization of CO_2 emissions by using one of the world's largest-class methanation systems (hereinafter, the "Nagaoka Methanation Demonstration").[*1] This system, which is being developed by Osaka Gas and MHI using the CO2NNEX®[*2] digital platform, is the first of its kind in the city gas industry for transfer and management of Clean Gas Certificates to certify the environmental value[*3] of e-methane.

The Nagaoka Methanation Demonstration is a project to produce e-methane from hydrogen (H_2) and carbon dioxide (CO_2) recovered from the Koshijihara Plant at the INPEX JAPAN Nagaoka Field Office (Nagaoka City, Niigata Prefecture), for planned delivery to customers through INPEX JAPAN's natural gas pipeline. The e-methane produced at the clean gas production facility, which was certified in January 2026, received clean gas equivalent amount certification on May 29.[*4]

Going forward, to build a model for local production and local consumption envisioned as part of the Nagaoka Methanation Demonstration, the partners will convert the environmental value of e-methane into Clean Gas Certificates, and together with Nagaoka City, as well as commercial firms Asahi-Shuzo Sake Brewing Co., Ltd. and Iwatsuka Confectionery Co., Ltd., which are located near the demonstration test facility, will work to transfer and manage clean gas certificates using CO2NNEX. (Fig.1)

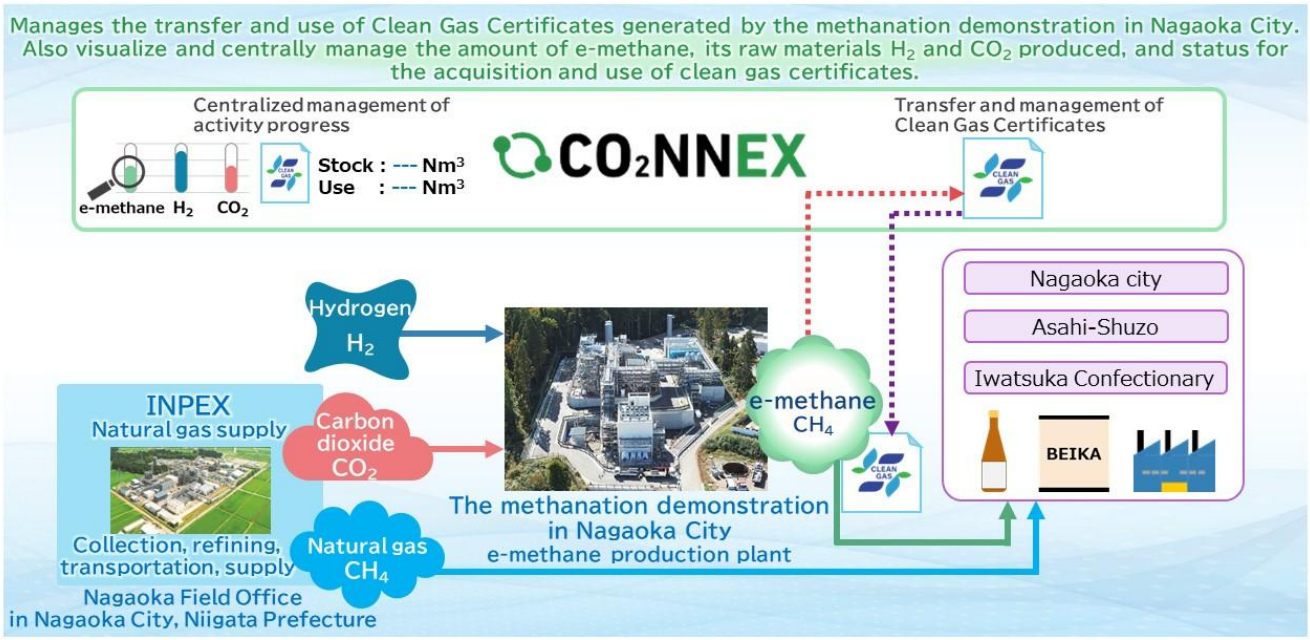

Fig. 1: Envisioned Initiatives using CO2NNEX

In addition to providing data, such as the amount of e-methane, the raw material used in its production (CO_2 and H_2), and the volume of CO_2 emissions across the lifecycle, CO2NNEX enables visualization and central management for the acquisition and use of Clean Gas Certificates, allowing for more advanced progress management for the entire demonstration project. (Fig. 2, integrating and managing the input data on the left and the output data on the right using CO2NNEX)

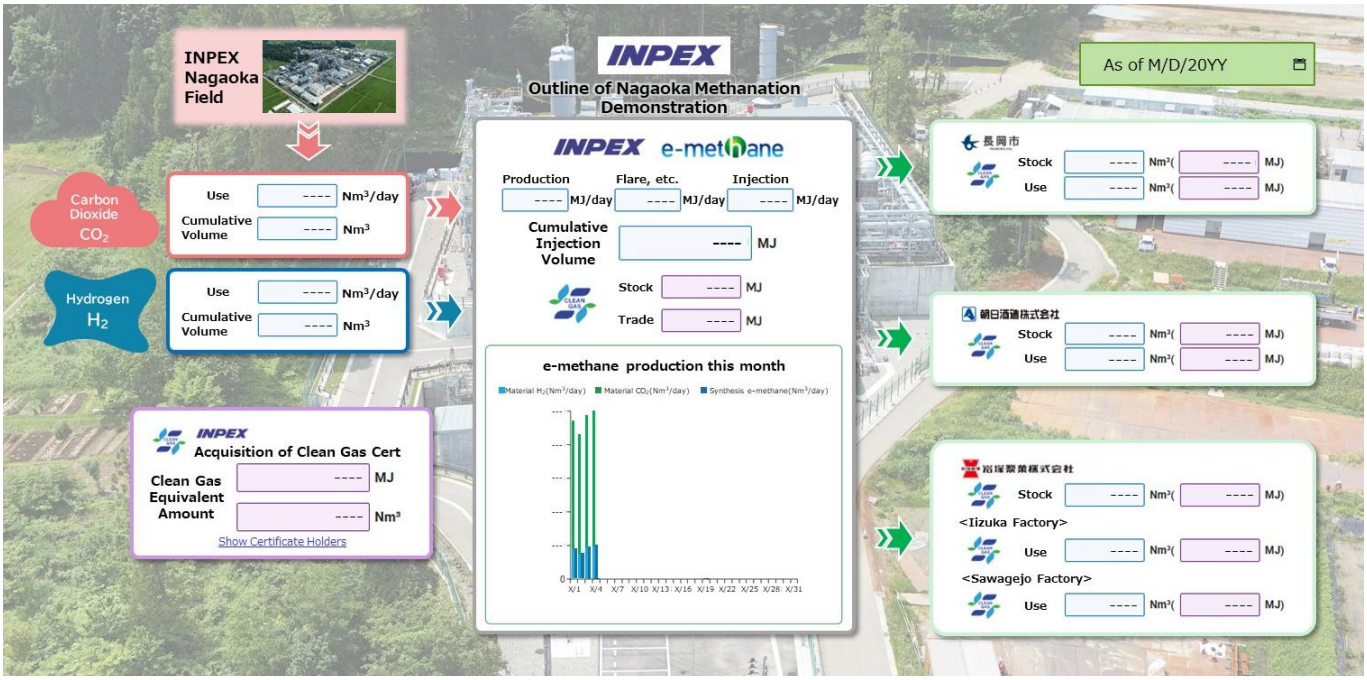

Fig. 2: Progress management for the entire demonstration project (System screen image)

Going forward, Japan's Ministry of Economy, Trade and Industry (METI) plans to conduct a system demonstration project for Environmental Value Certificates for next-generation fuels, including liquid fuels (e-gasoline, SAF) and gaseous fuels (e-methane, biogas).[*5] Operations of CO2NNEX in the Nagaoka Methanation Demonstration aim to provide a precedent for the establishment of the certificate system in the future, in the expectation that the experience gained and knowledge obtained will be useful in the consideration of the certificate system.

Through this initiative, INPEX, Osaka Gas, and MHI will contribute to the practical application of e-methane and the realization of a carbon-neutral society.

Notes

**1: Nagaoka Methanation Demonstration: Project entitled "Development of CO_2 utilization technology for gaseous fuel and Development of practical technology for pipeline injection using large-scale CO_2-methanation system", subsidized by Japan's New Energy and Industrial Technology Development Organization (NEDO). Injection of produced e-methane into natural gas pipelines began on February 20, 2026. The test facility was certified as a clean gas production facility under the Clean Gas Certificate System on January 27, 2026.*
For details, see the following press release:
"INPEX, Osaka Gas Commence Demonstration Operations at World's Largest-Class Methanation Test Facility" (February 24, 2026)
https://www.osakagas.co.jp/en/whatsnew/__icsFiles/afieldfile/2026/02/24/260224_2_1.pdf

**2: CO2NNEX is a digital platform developed by MHI for visualization and management of the CO_2 supply chain. Osaka Gas and MHI are jointly working to implement e-methane attribute data management and Clean Gas Certificate transfer and management functions through CO2NNEX. The implementation of this system is the second example, following Expo 2025 Osaka, Kansai, Japan*
For details, see the following press release:
"CO_2NNEX® Digital Platform for Transfer and Management of e-Methane Clean Gas Certificates to Be Utilized in Nagaoka Methanation Demonstration" (September 11, 2025)
https://www.osakagas.co.jp/en/whatsnew/__icsFiles/afieldfile/2025/09/10/250911_1.pdf

**3: Environmental value: Since CO_2 emitted into the atmosphere (or CO_2 in the atmosphere) is captured and carbon recycled as raw material for e-methane, even when e-methane is used (burned), the amount of CO_2 in the atmosphere does not increase in real terms, so CO_2 emissions are effectively zero.*

**4: Clean gas production facilities, clean gas equivalent: Under the clean gas certificate system, managed in part by the Japan Gas Association (JGA), e-methane and biogas, which carry environmental value (considered not to increase atmospheric CO_2 even when burned), are certified as clean gas and issued Clean Gas Certificates through a process that involves certification of the clean gas production facility, and certification of the equivalent amount of clean gas produced at the certified facility.*
For details, see the Clean Gas Certificate Evaluation Committee website:
https://www.clean-gas-certificate.com/

**5: Japan's Ministry of Economy, Trade and Industry (METI) plans to conduct a demonstration project for the phased launch of a clean fuel certificate system, including gaseous fuels such as synthetic methane (FY2026).*
For details, see the following document (Japanese):
14th Public-Private Council for the Promotion of Methanation (June 18, 2025)

Document 3:"Current Situation Surrounding Synthetic Methane (e-Methane) and Other Materials
https://www.meti.go.jp/shingikai/energy_environment/methanation_suishin/pdf/014_03_00.pdf

■ Overview of CO2NNEX utilization partners (Asahi-Shuzo Sake Brewing, Iwatsuka Confectionery, Nagaoka City)

Municipality Name	Nagaoka City
City Hall Location	1-4-10 Otedori, Nagaoka City, Niigata Prefecture
City Established	April 1906
Mayor	Tatsunobu ISODA
Main Policy Measures	Nagaoka City celebrates the 120th anniversary of the establishment of its municipal government this year, and is launching a new comprehensive plan created together with citizens. The city will further promote “Nagaoka-style innovation” to realize the envisioned future of the town, “Change! Nagaoka, the place you’ll want to continue living, to return to, your chosen city – Innovation-leading city”.

Company Name	Asahi-Shuzo Sake Brewing Co., Ltd.
Head Office Location	880-1 Asahi, Nagaoka-shi, Niigata Prefecture
Established	May 16, 1920
Representative	Yasushi HOSODA, President and CEO
Business Description	Asahi-Shuzo is engaged in the production and sale of Sake. Using soft, clear groundwater from underground veins, high-quality sake rice cultivated in collaboration with local farmers and through ongoing research, as well as wisdom inherited from the Echigo Toji and technological innovation rooted in fundamental research, we remain committed to sincere sake brewing with a focus on Niigata ingredients. Above all, we prioritize quality in everything we do and always put our customers first.

Company Name	Iwatsuka Confectionery Co., Ltd.
Head Office Location	2958 Iizuka, Nagaoka City, Niigata Prefecture
Established	July 29, 1947
Representative	Haruo MAKI, President
Business Description	Iwatsuka Seika mainly focuses on the manufacture and sale of BEIKA. Committed to using 100% domestically produced rice, we ensure strict quality control at every stage—from sourcing raw materials to production and sales—to deliver safe and reliable products. In addition, we are strengthening our collaboration with local agriculture and promoting sustainable business operations.

About INPEX
INPEX Group, in its INPEX Vision 2035 released in February 2025, announced its aim to execute a responsible energy transition focused on ensuring stable supply of lower-carbon energy in a sustainable manner, promoting lower-carbon solutions by leveraging its capabilities and technical expertise. In particular, along with reductions in GHG emissions by integrating CCS into its natural gas/LNG projects, INPEX will provide GHG reduction solutions to third parties.

About Osaka Gas
Daigas Group, based on its Energy Transition 2050 released in February 2025, will work to develop technologies and services that contribute to a carbon-neutral society, actively address climate change and other social challenges, and aim to be a corporate group that contributes to the further advancement of everyday life and business.

About MHI
MHI Group is actively involved in programs targeting the realization of a carbon neutral society. Building a CO_2 ecosystem is central to its energy transition initiatives. As a global leader in CCUS, the company aims to accelerate this ecosystem development by seeking widespread adoption of related hardware as well as the CO2NNEX digital platform.
For more information, see the CO2NNEX website.

*“CO2NNEX” is a registered trademark of MHI in Japan and other countries.