



Public Relations Group, Corporate Communications Unit
Akasaka Biz Tower, 5-3-1 Akasaka, Minato-ku, Tokyo 107-6332 JAPAN

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**INPEX Commences CO₂ Injection into Depleted Gas Field at Kashiwazaki Hydrogen Park
as Part of Integrated Blue Hydrogen and Ammonia Production and Utilization
Demonstration Project in Kashiwazaki, Niigata Prefecture**

TOKYO, JAPAN - [INPEX CORPORATION](#) (INPEX) announced that it has commenced the injection of CO₂ generated as a by-product of hydrogen production into a subsurface reservoir in the Hirai area of the Higashi-Kashiwazaki Gas Field, where gas production has already ceased, as part of its Integrated Blue Hydrogen and Ammonia Production and Utilization Demonstration Project (the “Demonstration Project”) being conducted in Kashiwazaki City, Niigata Prefecture.

The Demonstration Project is the first in Japan to integrate the entire hydrogen and ammonia value chain, from production through utilization, involving hydrogen and ammonia as clean energy sources that do not emit CO₂ during use. The commencement of CO₂ injection will enable the project to reduce CO₂ emissions by capturing and storing CO₂ generated during hydrogen production.

The Demonstration Project is a locally integrated project based in Niigata Prefecture, where INPEX has conducted operations for many years. The feedstock gas used in the project is domestically produced natural gas from the Minami-Nagaoka Gas Field operated by INPEX in Niigata Prefecture. Hydrogen produced through the Demonstration Project is supplied as electricity within Niigata Prefecture via hydrogen-fired power generation facilities located at Kashiwazaki Hydrogen Park. In addition, a portion of the hydrogen is converted into ammonia and supplied to customers within the prefecture.

In the Demonstration Project, CO₂ generated from the hydrogen production facility is separated and captured using HiPACT®, a high-pressure CO₂ capture technology jointly developed by JGC Global Co., Ltd. And BASF. A key feature of the technology is its ability to capture CO₂ under high-pressure conditions, which is expected to reduce energy consumption and costs required for the entire CO₂ capture and injection process compared with conventional technologies. The technology is also expected to play an important role in improving the economic viability of blue hydrogen and ammonia production as well as carbon capture and storage (CCS) projects, thereby contributing to their wider deployment and commercialization.

The hydrogen and ammonia production facilities and CO₂ capture processes of the Demonstration Project are being implemented under a subsidized project adopted by the New Energy and Industrial Technology Development Organization (NEDO) as part of its program entitled “Development of Technologies for Fuel Ammonia Production and Utilization / Technology Development for Blue Ammonia Production.”

The implementation and evaluation of geological CO₂ storage are being carried out under a joint research project with the Japan Organization for Metals and Energy Security (JOGMEC) entitled “Demonstration Project to Assess CO₂ Storage Capacity in Depleted Oil and Gas Fields in Japan for Decarbonization through Natural Gas Utilization and Related Initiatives.”

In February 2025, INPEX announced [INPEX Vision 2035](#), which sets forth the realization of a “Responsible Energy Transition.” Under the vision, INPEX aims to expand the provision of low-carbon solutions centered on CCS and hydrogen by 2035. The Demonstration Project represents an important initiative toward achieving this objective. Through the project, INPEX will continue to advance efforts to help realize a carbon-neutral society.

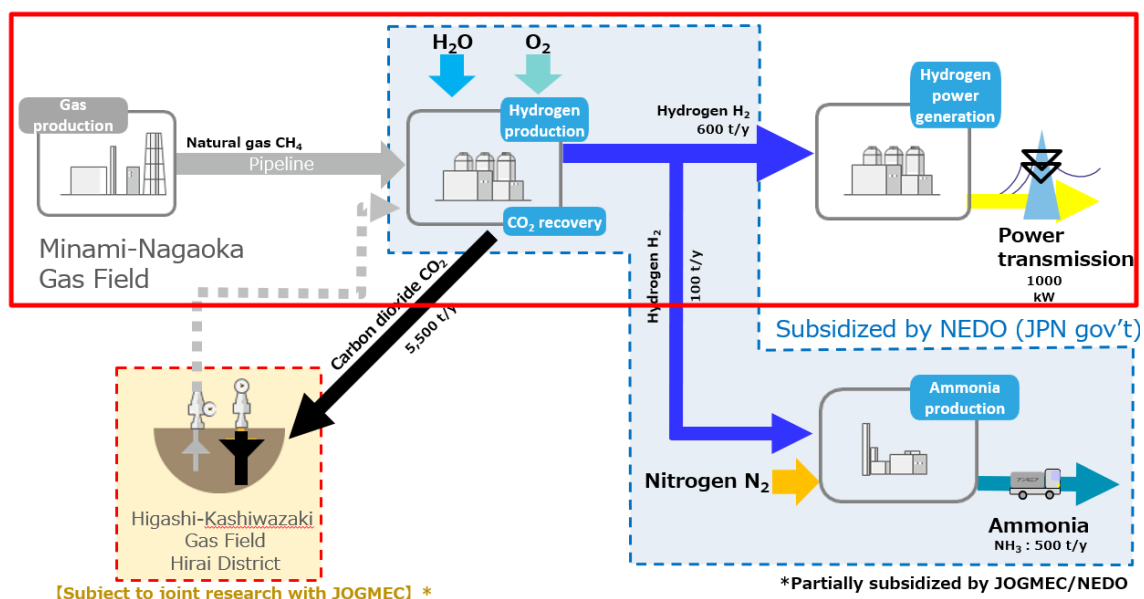
¹ Carbon Capture Utilization and Storage: A technology for capturing, storing, and utilizing carbon dioxide.

1. Project overview

Content	- Hydrogen/ammonia production and CO₂ recovery (Subsidized by NEDO) - CCUS, including evaluation of CO₂ storage potential of depleted oil and gas fields in Japan (Joint research with JOGMEC)
Timeline	Second half of fiscal 2022 until end of September 2026 (This represents the period of the NEDO subsidized project and the JOGMEC joint research. Following the completion of this period, the company plans to continue the project operations under its own business initiative.)
Location	INPEX Higashi-Kashiwazaki Gas Field Hirai District, Kashiwazaki City, Niigata Prefecture
Summary	1) Demonstration of production of blue hydrogen and supply of clean electricity using blue hydrogen 2) Ammonia production using a recently developed low-temperature, low-pressure synthesis process 3) Evaluation and verification of CO ₂ storage potential of depleted oil and gas fields in Japan

	4) Confirmation of enhanced gas recovery (EGR) by CO₂ injection 5) Implementation of CO₂ injection monitoring to confirm safety
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2. Project diagram



About INPEX

INPEX is Japan's largest exploration and production (E&P) company, engaged in the development and operation of oil and gas projects worldwide. We are committed to contributing to a brighter future by delivering energy in a sustainable way. As part of this commitment, we are also engaging in lower-carbon solutions such as CCS, hydrogen and integrated power supply, while pursuing new opportunities in the evolving energy landscape.

For more information, visit <https://www.inpex.com/english/index.html>.

Media Contact: INPEX Tokyo Office, Public Relations Group, Tel) +81-3-5572-0750