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**INPEX Commences Ammonia Production and Supply at Kashiwazaki Hydrogen Park
as Part of Integrated Blue Hydrogen and Ammonia Production and Utilization
Demonstration Project in Niigata, Japan**

TOKYO, JAPAN - [INPEX CORPORATION](#) (INPEX) announced that it has commenced ammonia production as part of its Integrated Blue Hydrogen and Ammonia Production and Utilization Demonstration Project (the “Demonstration Project”) being conducted in Kashiwazaki City, Niigata Prefecture, and began supplying the ammonia to Mitsubishi Gas Chemical Company, Inc. (MGC).

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. With the commencement of ammonia production and supply, INPEX has achieved integrated demonstration operations covering the process from hydrogen production through ammonia production. By acquiring knowledge related to the production and supply of hydrogen and ammonia, INPEX will utilize the findings from the Demonstration Project in optimization studies for future large-scale low-carbon solution businesses.

The feedstock gas used to produce hydrogen, and ammonia is domestically produced natural gas from the Minami-Nagaoka Gas Field operated by INPEX in Nagaoka City, Niigata Prefecture. CO₂ generated as a by-product during the production process is injected into a subsurface reservoir in the Hirai area of the Higashi-Kashiwazaki Gas Field, where gas production has already ceased, as part of a carbon capture, utilization and storage (CCUS¹) initiative, thereby reducing atmospheric CO₂ emissions.

The Demonstration Project produces ammonia from hydrogen using a low-temperature, low-pressure ammonia synthesis technology developed by Tsubame BHB Co., Ltd. (the “Technology”). Using a proprietary electride catalyst², the Technology enables highly efficient ammonia synthesis under lower-temperature and lower-pressure conditions than the conventional Haber-Bosch process³. This is expected to enable more compact facilities and reduce the energy required for ammonia production. The Technology also enables on-site production near areas of demand and is expected to play an important role in helping realize decentralized ammonia supply in the future.

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 envisages 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.

² Electride catalyst: An ammonia synthesis catalyst incorporating an electride, or electron-containing compound, that enables ammonia synthesis under low-temperature and low-pressure conditions.

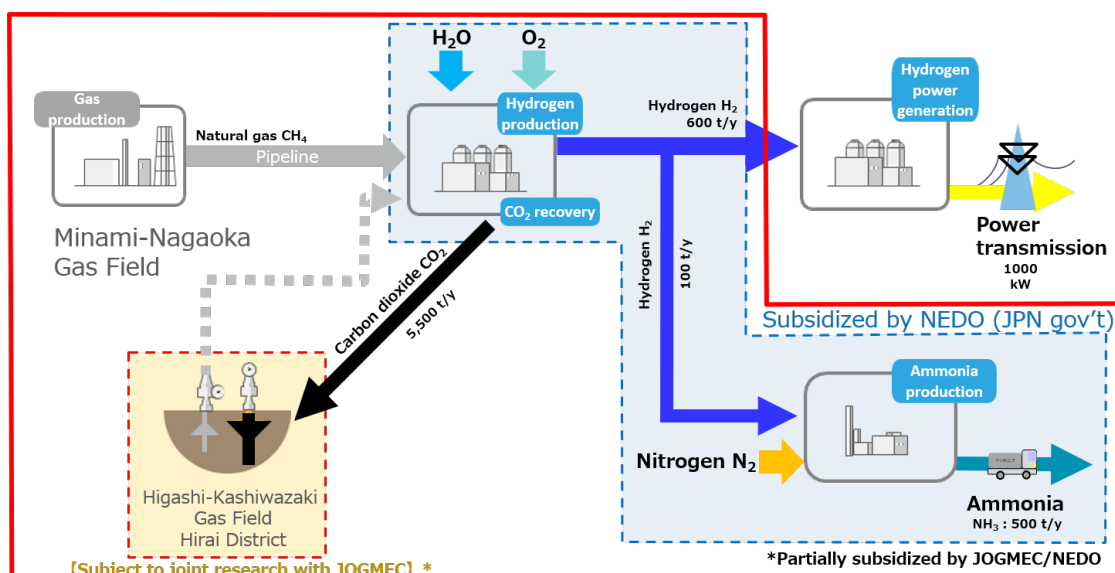
³ Haber-Bosch process: The conventional industrial process for synthesizing ammonia from nitrogen and hydrogen. It is the predominant ammonia production technology and operates under high-temperature and high-pressure conditions.

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	Fiscal 2022 until end of December 2026 (NEDO subsidized project) Fiscal 2022 until end of September 2026 (JOGMEC joint research) October 2026 until end of March 2028 (JOGMEC post-project 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 CO ₂ injection 5) Implementation of CO ₂ injection monitoring to confirm safety

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>.

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