



August 2, 2021

ENEOS Begins Joint Study with Neoen for Development of a Japan-Australia CO₂-free Hydrogen Supply Chain in South Australia

ENEOS Corporation (President: Ota Katsuyuki; "ENEOS") announces that it has concluded a memorandum with Neoen Australia Pty Ltd. ("Neoen" hereinafter) to conduct a study on a potential business collaboration for the construction of a CO₂-free hydrogen supply chain between Japan and Australia.

In anticipation of a hydrogen-oriented society toward decarbonization, ENEOS is striving to develop a CO₂-free hydrogen supply chain in Japan and overseas. Outside Japan, the wide range of alliances in Australia, Middle East and Asia are being utilized to implement verification for the realization of a large-scale supply of cost-competitive hydrogen.

As a part of these initiatives, ENEOS plans to conduct a study for collaboration with a local company in Australia to build a supply chain for an affordable and stable supply of CO₂-free hydrogen (green hydrogen) produced from renewable energy. This will be achieved by utilizing Australia's excellent potential for cost-competitive hydrogen production due to its favorable climate conditions, including wind and sunlight, and expansive land.

Neoen is one of the world's leading independent renewable energy power producers with more than 2 GW of renewable energy generation in operation or under construction in Australia. In South Australia, the company is currently developing two pioneering projects—the Goyder Renewables Zone and Crystal Brook Energy Park. These projects combine wind, solar and battery storage to provide a firm renewable energy power supply—overcoming the limitations of wind or solar only projects.

In the study*, the two companies will jointly examine the potential for the stable supply of affordable hydrogen produced from renewable energy in South Australia. Specifically, Neoen will study stable renewable energy supply and water electrolysis cells for hydrogen production. ENEOS will be responsible for more efficient production of methylcyclohexane (MCH) and maritime transport of MCH as a form of hydrogen storage and transport from Australia to Japan.

South Australia is one of the most developed regions in the world in terms of battery storage infrastructure. In addition, the state government is promoting development of next-generation energy industries, including hydrogen and ammonia, and planning expansion of facilities at its leading port, which is expected to be used as the base for hydrogen export to Japan.

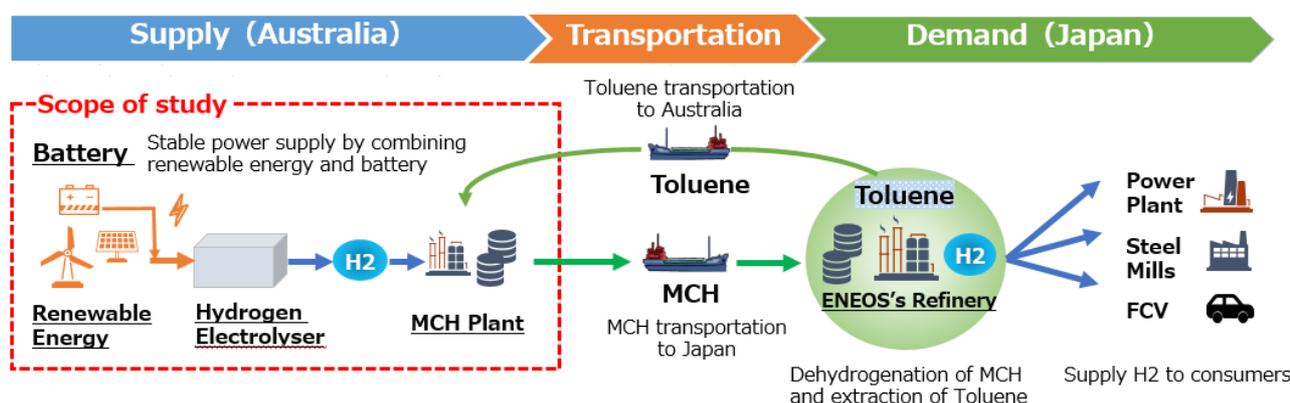
The two companies will actively utilize government support, including the Green Innovation Fund in Japan and the hydrogen hub project in Australia, to achieve early development of a CO₂-free hydrogen supply chain between Japan and Australia.

This initiative is consistent with United Nations Sustainable Development Goals (SDGs) 7. Affordable and clean energy, 9. Industry, innovation and infrastructure, and 13. Climate action. ENEOS is contributing to the realization of a low-carbon, recycling-oriented society through the promotion of hydrogen use, including the joint study with Neoen.

*Overview of the CO₂-free hydrogen supply chain and the scope of joint study with Neoen

1. Manufacturing green hydrogen from renewable-energy-derived power through water electrolysis in Australia
2. Conversion of manufactured hydrogen into MCH, a form of efficient hydrogen storage and transport
3. Maritime transport of MCH to Japan by tankers
4. Receipt, storage and dehydrogenation of MCH at ENEOS refineries and supply of hydrogen for industrial use at nearby thermal power plants, steel refineries, etc.
5. Toluene separated in the dehydrogenation process is returned to Australia for repeat use as a raw material in MCH production.

ENEOS's existing petroleum-related infrastructure, including tankers, storage tanks and dehydrogenation facilities, can be utilized in the CO₂-free hydrogen supply chain, enabling development of a new energy supply system while curbing new investment.



[Reference]

Overview of Neoen

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| Official Name | Neoen Australia Pty Ltd |
| Established | 2013 |
| Representative | Louis de Sambucy, Managing Director |
| Head Office | Sydney, New South Wales, Australia |
| Business Profile | Australian subsidiary of the Neoen Group based in France. The company specializes in solar power generation, wind power generation and other renewable energy business projects. Its power generation capacity in Australia exceeds 2 GW, including those currently under construction. |