

METHANATION STUDY MOU BETWEEN ATCO and Osaka Gas Australia

Osaka Gas Australia Pty Ltd (“OGA”) and ATCO Australia (“ATCO”) have undertaken a MOU to jointly study the viability of a methanation pilot plant to produce renewable synthetic methane.

KEY POINTS

- **OGA and ATCO have signed a MOU to undertake a joint methanation study to explore the viability of a methanation concept to produce renewable synthetic methane for domestic and export purposes.**
 - **The study will source CO2 capture opportunities around Australia and green hydrogen production opportunities from renewable sources.**
 - **The process of producing renewable synthetic methane is viewed as a form of abating future CO2 emissions by utilizing carbon captured from CO2 emitters or from Direct Air Capture and a form of promoting green hydrogen production.**
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OGA and ATCO has signed an MOU to undertake a preliminary desktop engineering study and feasibility study on the financial, technical, and commercial viability of a Pilot Project.

Methanation is a method of producing methane from a chemical process by combining CO2 with hydrogen through a catalyst.

Methanation using hydrogen produced from renewable energy and combining CO2, that is captured from a CO2 emissions source or Direct Air Capture (DAC), yields renewable synthetic methane. OGA seeks to achieve carbon neutrality of natural gas with renewable synthetic methane whilst using existing natural gas infrastructure and facilities.

Renewable synthetic methane is viewed as a form of abating future CO2 emissions by utilizing carbon captured from CO2 emitters or from DAC, a form of Carbon Capture Utilization (CCU). It is also viewed as a form of driving economies of scale in the production of green hydrogen by supporting offtake of hydrogen and thereby driving down the cost of hydrogen production. The basic elements in CO2 methanation have already been established. The study will seek viability of a pilot plant project to further develop the methanation process through optimization and scaling up of the production process.

The study is in line with the “Carbon Neutral Vision” announced by Osaka Gas Co. Ltd in January 2021, that has an ongoing initiative to identify and develop new technologies that are key to the decarbonization of the Group’s operations. It is also supported by the Green Growth Strategy announced by the Japanese government lead by the Ministry of Economy, Trade, and Industry (METI) to target injection of synthetic methane of 1% into the Japanese gas distribution network by 2030 and 90% by 2050.

Managing Director of OGA, Yo Otsuka, comments: “As Osaka Gas steps forward into a carbon neutral society, our social and environmental pathways are paramount to the company and its stakeholders. We acknowledge valuable and high caliber partnerships and are proud to be working with ATCO on this joint study in methanation. With Australia’s abundant renewable resources and existing

infrastructure, we believe that Australia is one of the prime locations for manufacturing renewable synthetic methane which will bring us closer to Osaka Gas's net zero targets".

ABOUT OSAKA GAS AUSTRALIA Pty Ltd

Osaka Gas Australia Pty Ltd is an Australian company that owns five (5) assets and is a wholly owned subsidiary of Osaka Gas Co. Ltd. Osaka Gas is a leading energy company and the second largest gas supplier in Japan. Founded in 1897 and in operation since 1905, the company serves around 5 million natural gas customers in the Kansai region, the most populated area in western Japan, including Osaka, where the company is headquartered.

ABOUT ATCO

ATCO provides integrated energy, housing, transportation, and infrastructure solutions.

The company offers comprehensive solutions and service excellence in:

- Structures & Logistics – workforce housing, innovate modular facilities, construction, site support service, and logistics and operations management.
- Energy Infrastructure – electricity generation, transmission, and distribution; natural gas transmission, distribution and infrastructure development; energy storage and industrial water solutions; and electricity and natural gas retail sales
- Transportation – ports and transportation logistics
- Commercial Real Estate

An Illustrative Example of the Methanation Value Chain through the use of Existing gas Infrastructure

