Commencement of the Pre-FEED Study with Santos, Osaka Gas and Toho Gas for Production and Export of e-methane in Australia

August 21, 2024 Tokyo Gas Co., Ltd.

Tokyo, August 21, 2024 – Tokyo Gas Co., Ltd. (Tokyo Gas), Osaka Gas Australia Pty Ltd (OGA), Toho Gas Co., Ltd and Santos Ltd (Santos) through Santos Ventures Pty Ltd, a subsidiary of Santos, have entered into an agreement to conduct a pre-FEED study on a project to produce emethane^{*1} at Moomba in the Cooper Basin, located in the central eastern part of Australia, where Santos has knowledge from decades of development and operation of upstream gas fields, and to export e-methane to Japan.

This study is based on the results of the feasibility study^{*2} undertaken by Tokyo Gas and Santos since November 2023. The project aims to export more than 130,000 tons of e-methane per year (equivalent to approx. 180 million m3 of city gas per year) to Japan from 2030 at the earliest.

For this Pre-FEED initiative, Tokyo Gas has secured a subsidy of Japan's Ministry of Economy, Trade, and Industry^{*3}.

Tokyo Gas is collaborating with various entities in Japan and overseas to achieve net-zero CO_2 emissions, a goal set forth in the Group Management Vision "Compass 2030", by combining renewable energy, hydrogen, methanation^{*4}, CCUS, and other measures. In particular, we are working toward the future implementation of e-methane, aiming to introduce e-methane equivalent to 1% ^{*5} of Tokyo Gas' gas sales volume by 2030, and more than 10 times carbon neutral gas by 2040. Tokyo Gas has been promoting e-methane demonstration projects in Japan and strive to establish a large-scale global e-methane supply chain that includes North America, Southeast Asia, the Middle East and Australia. Tokyo Gas will continue to strive for the early establishment of the e-methane supply chain and contribute to the Japanese government's goal of carbon neutrality in 2050.

Renewable energy	Abundant solar and wind energy available in the Cooper Basin
Carbon dioxide	Sourced from nearby projects or those in Eastern Australia
Natural gas pipeline	Existing pipelines to Eastern Australia and the Northern Territory
LNG export terminal	Gladstone LNG and Darwin LNG accessible from the area

■Key elements for the project

■ Site location of Moomba and flow of e-methane export



Partners

Company Name	Santos Ltd
Headquarters	Adelaide, South Australia, Australia
Established	March 1954
Representative	Kevin Gallagher

Company Name	Santos Ventures Pty Ltd
Headquarters	Adelaide, South Australia, Australia
Established	February 2007
Representative	Kevin Gallagher

Company Name	Osaka Gas Co., Ltd.
Headquarters	Chuo-ku, Osaka
Established	April 1897
Representative	Masataka Fujiwara

Company Name	Osaka Gas Australia Pty Ltd
Headquarters	Perth, Western Australia, Australia
Established	August 2000
Representative	Yo Otsuka

Company Name	Toho Gas Co., Ltd
Headquarters	Nagoya, Aichi

Established	June 1922
Representative	Nobuyuki Masuda

*1: E-methane is synthetic methane (CH_4) produced from non-fossil energy sources such as green hydrogen.

*2: "Commencement of the Joint Feasibility Study with Santos for Production and Export of emethane in Australia" (announced on November 21, 2023)

Ministry of Economy, Trade and Industry, Subcommittee on Electricity and Gas Basic Policy, Gas Utility System Study Working Group "Interim Report on Carbon Neutralization of City Gas" (published 29 June 2023).

*3: FY2024 Public Call for Subsidies for the Project to Support Decarbonization and Energy Conversion Technologies in Resource-Rich Countries | National Agency for Natural Resources and Energy(meti.go.jp)

*4: Methanation is a technology to produce methane (CH_4) , the main component of city gas, through the reaction of carbon dioxide (CO_2) and hydrogen (H_2) .

*5: 1% of city gas sales excluding wholesaling and power generation