

Osaka Gas to launch Ship-to-Ship LNG bunkering business in Osaka Bay and Seto Inland Sea

June 27, 2023

Osaka Gas Co., Ltd.

Osaka Gas Co., Ltd. (Osaka Gas) has announced the launch of a Ship-to-Ship LNG bunkering¹ business, which is a first for the company, in the Osaka Bay and the Seto Inland Sea, planning to start the operation of an LNG bunkering vessel with a 1,500-ton capacity in fiscal 2026. This commercial undertaking, in which Osaka Gas will sell and provide LNG, aims to supply LNG fuel to LNG-fueled ships using a bunkering vessel, which will carry LNG loaded at the facilities located in Osaka Gas' LNG terminals.

This bunkering business was adopted as a project eligible for the Ministry of Land, Infrastructure, Transport and Tourism's LNG bunkering hub development program for fiscal 2023 (the "subsidy program"). The bunkering vessel construction will be led by Osaka Bay LNG Shipping Co., Ltd. (OLS), a company jointly established by Osaka Gas International Transport Inc. (OGIT, Osaka Gas' 100% subsidiary), NS United Coastal Tanker Kaisha, Ltd. (NSUT), and Kobe-Osaka International Port Corporation (HPC).

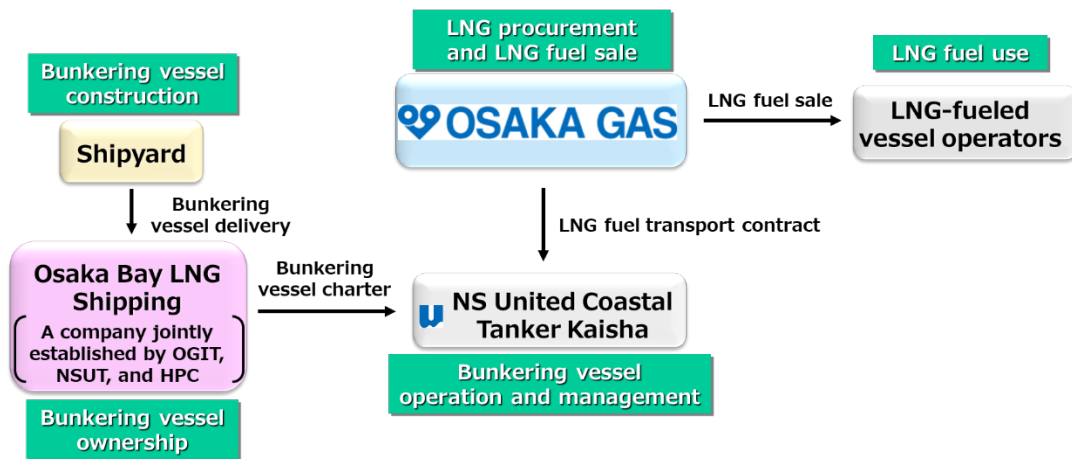
In this commercial enterprise, OLS will own the LNG bunkering vessel to be constructed under the subsidy program, NSUT, an established LNG coastal vessel operator, will manage and operate the vessel, and HPC will promote the business and LNG bunkering across the shipping industry in cooperation with the relevant government agencies, port administrator and officials.

An increasing number of LNG-fueled vessels is expected to come into operation in the years to come due to the global trend of marine fuel decarbonization. The International Maritime Organization has set a target of a 50% reduction in the greenhouse gas emissions by 2050 from the 2008 level. Introducing e-methane², carbon neutral synthetic methane Osaka Gas is developing, to LNG- fueled vessels will further accelerate the decarbonization of bunker fuel.

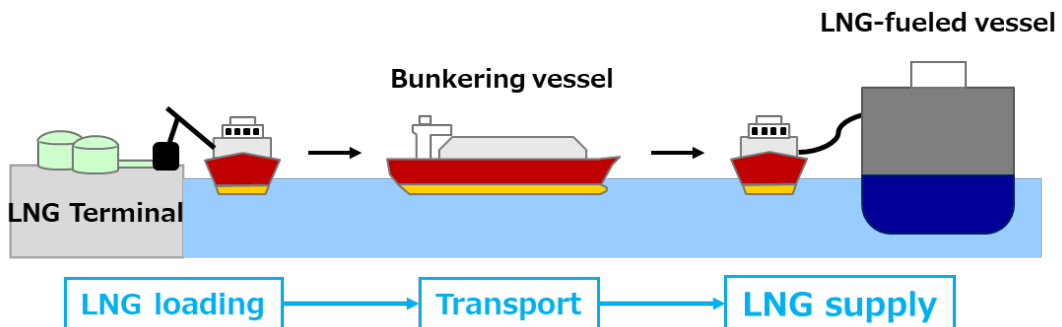
The Daigas Group intends to expand the LNG bunkering business and achieve the commercialization of e-methane and its application to bunkering, aiming to contribute to the lower carbon and decarbonized marine transportation industry.

- 1 A method of transferring LNG fuel to an LNG-fueled vessel moored at berth or at anchor from an LNG bunkering ship bought into close proximity (cf. Truck-to-Ship LNG bunkering using an LNG truck to transfer LNG fuel to an LNG-fueled vessel moored at berth, Shore-to-Ship LNG bunkering using on-shore facilities such as an LNG terminal to transfer LNG fuel to an LNG-fueled vessel moored at berth or jetty).
- 2 Synthetic methane produced through a methanation process using non-fossil fuel energy sources such as green hydrogen

1. Business scheme



2. Ship-to-Ship LNG bunkering



3. Company Information

Osaka Gas Co., Ltd. (Osaka Gas)

Headquarters	4-1-2 Hiranomachi, Chuo-ku, Osaka, Japan
Established	April 10, 1897
Representative	Masataka Fujiwara, President and Representative Director

Osaka Bay LNG Shipping Co., Ltd. (OLS)

Headquarters	4-1-2 Hiranomachi, Chuo-ku, Osaka, Japan
Established	June 14, 2023
Representative	Takenori Fujita, President and Representative Director
Equity holders	Osaka Gas International Transport Inc., NS United Coastal Tanker Kaisha, Ltd., and Kobe-Osaka International Port Corporation

Osaka Gas International Transport Inc. (OGIT)

Headquarters	4-1-2 Hiranomachi, Chuo-ku, Osaka, Japan
Established	April 2, 1990
Representative	Takenori Fujita, President and Representative Director