

## Commencing Kansai's First LNG-fuel to LNG-Fueled Tugboat Ishin

January 31, 2019  
Osaka Gas Co., Ltd.  
OGCTS Co., Ltd.

Osaka Gas Co., Ltd. (President: Takehiro Honjo; hereinafter referred to as "Osaka Gas") and OGCTS Co., Ltd. (President: Hiroyasu Suzuki), a wholly owned subsidiary of Osaka Gas, supplied fuel to the liquefied natural gas (LNG)-fueled tugboat\*<sup>1</sup> Ishin, developed by Mitsui O.S.K. Lines, Ltd. (President and CEO: Junichiro Ikeda; hereinafter referred to as "Mitsui O.S.K. Lines"), today at Sakai-Senboku Port for the first such fueling in Kansai.

Ishin, owned by Mitsui O.S.K. Lines, was built by Kanagawa Dockyard Co., Ltd. (President: Takehito Ikoma) and is operated by Nihon Tug-boat Co., Ltd. (President: Tetsuro Nishio). The boat is scheduled to commence commercial operation in April 2019. The LNG fuel supplied today will be used for a test run before starting commercial operation.

In October 2016, the International Maritime Organization decided to introduce tighter regulations on sulfur oxides (SO<sub>x</sub>) emissions in sea areas including Japan in 2020. Under the leadership of the Ministry of Land, Infrastructure, Transport and Tourism, Japan has been actively promoting LNG bunkering, which supplies ships with LNG, an environmentally friendly fuel, increasing the possibility of expanded consumption of LNG in marine transportation in coming years.

The fuel supply project has come to fruition owing to the port improvement by the Port and Harbor Bureau of the Osaka Prefectural Government and the construction of an LNG fuel supply system compliant with the applicable laws and regulations by us in collaboration with other stakeholders including Mitsui O.S.K. Lines. Based on the expertise gained through the project, we will explore expanding the LNG fuel supply service for ships.

The Daigas Group aims to conduct its business in an ESG\*<sup>2</sup>-conscious manner meeting global standards, as set out in its long-term business vision Going Forward Beyond Borders 2030. We intend to actively contribute to reducing impact on the environment by promoting widespread use of natural gas, a clean energy source.

\*1. Tugboat: a boat used to assist large ships and aquatic structures in berthing to or leaving from a jetty or quay

\*2. ESG: environmental, social, and governance

<LNG fuel supply>

