Carbon-Neutral LNG Fuel to LNG-Fueled Tugboat Ishin —Japan's First Supply of Carbon-Neutral LNG for Marine Fuels—

September 2, 2021 Osaka Gas Co., Ltd. Daigas Energy Co., Ltd.

Osaka Gas Co., Ltd. (President: Masataka Fujiwara; hereinafter referred to as "Osaka Gas") and Daigas Energy Co., Ltd. (President: Masayuki Inoue; hereinafter referred to as "Daigas Energy") commenced supplying carbon-neutral LNG (hereinafter referred to as "CNLNG")*1 to the LNG-fueled tugboat*2 Ishin, operated by Nihon-Tug-Boat Co., Ltd. (hereinafter referred to as "Nihon-Tug-Boat"), a group company of Mitsui O.S.K. Lines, Ltd. (hereinafter referred to as "Mitsui O.S.K."), on September 1. This is the first project in Japan to supply CNLNG for marine fuels.

The LNG-fueled tugboat Ishin is a boat owned by Mitsui O.S.K., and it has been operated commercially by Nihon-Tug-Boat from February 2019. Daigas Energy, a wholly owned subsidiary of Osaka Gas, has been supplying LNG fuel to the tugboat since the start of commercial operation*3 using tank trucks*4, and this time, it concluded a memorandum of understanding on the supply of CNLNG for several years with Nihon-Tug-Boat.

In recent years, the move of environmental regulations on marine fuels has been accelerated. In April 2018, the International Marine Organization (IMO) announced its policy to reduce greenhouse gas emissions to zero within this century as well as to halve the emissions by 2050, compared to 2008.

The Daigas Group, under the "Carbon Neutral Vision" announced in January 2021, will promote its efforts to contribute to reducing environmental impact in the marine fuel field through expanding its supply of LNG fuels to ships and utilizing CNLNG.

- *1 LNG that uses credits to offset greenhouse gases generated throughout the life cycle, including the processes of natural gas mining, transportation, manufacturing, and combustion.
- *2 A small ship that assists large ships and floating structures when they dock and undock at wharfs and piers
- *3 Initially LNG was supplied by OGCTS Co., Ltd. On April 1, 2020, the company merged with Daigas Energy, which took over the business.
- *4 Published in the news "Commencing Kansai's First LNG-fuel to LNG-Fueled Tugboat Ishin" on January 31, 2019 (https://www.osakagas.co.jp/en/whatsnew/ icsFiles/afieldfile/2019/02/13/190131.pdf)

<Scenes of CNLNG supply to the LNG-fueled tugboat Ishin>



