May 13, 2020 Kawasaki Kisen Kaisha, Ltd. JERA Co., Inc. Toyota Tsusho Corporation Nippon Yusen Kabushiki Kaisha

# Japan's First LNG Bunkering Vessel Launched — Operations to Begin in Autumn 2020

Japan's first LNG bunker vessel (LBV) was successfully launched at the Sakaide Works of Kawasaki Heavy Industries Ltd.

The LBV is scheduled to be delivered at the end of September 2020 and will be the first LBV to be operated in Japan. After the delivery, the LBV will be based at JERA's Kawagoe Thermal Power Station and commence ship-to-ship LNG bunkering business for LNG-fueled vessels.

In 2018, Kawasaki Kisen Kaisha Ltd. ("K" Line), JERA Co. Inc., Toyota Tsusho Corporation, and Nippon Yusen Kabushiki Kaisha (NYK Line) jointly established Central LNG Shipping Japan Corporation (CLS), which owns the LBV and ordered its building, and Central LNG Marine Fuel Japan Corporation (CLMF), which will promote the LNG bunkering business in the Chubu (central) region of Japan.

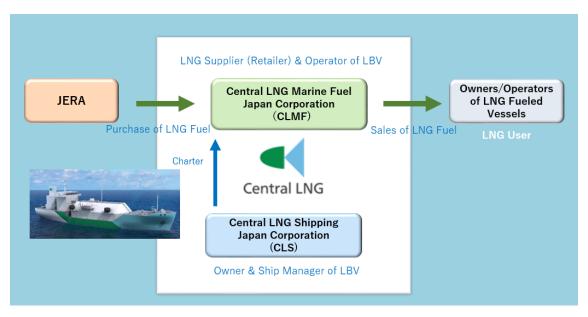
The expertise and strengths of each company will be utilized to provide LNG bunkering solution in the Chubu region and promote a shift to marine LNG for ships.

# <Principal Particulars of LBV>



LNG cargo tank capacity: 3,500 m<sup>3</sup> Gross tonnage: 4,100 tons Length overall: 81.7 m Breadth: 18.0 m Delivery: September 2020 Shipyard: Kawasaki Heavy Industries Ltd., Sakaide Works

## <Supply Chain>



### <Merits of LNG>

Compared to heavy fuel oil, the use of LNG can reduce emissions of sulfur oxides (SOx) and particulate matter (PM) by approximately 100%, nitrogen oxides (NOx) by as much as 80%, and carbon dioxide (CO<sub>2</sub>) by approximately 30%.

## - Links for reference

January 26, 2018 release: "K" Line, Chubu Electric, Toyota Tsusho, and NYK Line Begin Joint Discussions on LNG Bunkering Business in Japan <u>https://www.kline.co.jp/en/news/other/other-6032850503267450371.html</u>

May 10, 2018 release: "K" Line, Chubu Electric, Toyota Tsusho, and NYK Line Establish LNG Bunkering Joint Ventures and Launch LNG Bunkering Business in Japan <u>https://www.kline.co.jp/en/news/lng/lng-</u> <u>7175154730257498310/main/0/link/20189510 E.pdf</u>

July 6, 2018 release: Japan's First LNG Bunkering Vessel to Start Operation in 2020 <a href="https://www.kline.co.jp/en/news/Liquefied\_gas/liquefied\_gas2110830164254962877/main/0/link/20180706ENFINAL.pdf">https://www.kline.co.jp/en/news/Liquefied\_gas/liquefied\_gas2110830164254962877/main/0/link/20180706ENFINAL.pdf</a>

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