July 6, 2018 Kawasaki Kisen Kaisha, Ltd. Chubu Electric Power Co., Inc. Toyota Tsusho Corporation Nippon Yusen Kabushiki Kaisha

Japan's First LNG Bunkering Vessel to Start Operation in 2020

Central LNG Shipping Japan Corporation (Hereinafter: CLS), a joint venture established by Kawasaki Kisen Kaisha, Ltd., Chubu Electric Power Co., Inc., Toyota Tsusho Corporation, and Nippon Yusen Kabushiki Kaisha, announces that CLS has ordered an LNG Bunkering Vessel (Hereinafter: LBV) from Kawasaki Heavy Industries, Ltd. today. The LBV, which is scheduled to be delivered around September to December 2020, will become the first to be operated in Japan.

The four companies jointly established CLS and Central LNG Marine Fuel Japan Corporation (Hereinafter: CLMF) in May of this year to launch the LNG Bunkering Business in the Chubu (central) region of Japan. The LBV will be owned and managed by CLS, and LNG will be supplied to end-users through CLMF.

<Principal Particulars of LBV>

LNG cargo tank capacity	: 3,500 m ³
Gross tonnage	: 4,100 tons
Length overall	: 81.7 m
Breadth	: 18.0 m
Delivery	: Sept. – Dec. 2020
Shipyard	: Kawasaki Heavy Industries, Ltd.



Image of LBV (Provided by Kawasaki Heavy Industries, Ltd.)

<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 (CO₂) 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>