

ITOCHU Announces Supply of Marine Ammonia Fuel in Japan and Joint Development of Supply Sites

ITOCHU Corporation (headquartered in Minato-ku, Tokyo; Yoshihisa Suzuki, President & COO; hereinafter "ITOCHU") and ITOCHU ENEX Co., Ltd. (headquartered in Chiyoda-ku, Tokyo; Kenji Okada, President and CEO; hereinafter "ITOCHU ENEX") announced today that they have reached an agreement with Ube Industries, Ltd. (headquartered in Minato-ku Tokyo; Masato Izumihara, President; hereinafter "Ube Industries") and Uyeno Transtech Ltd. (headquartered in Yokohama-shi, Kanagawa Prefecture; Takashi Ueno, Chairman, President and CEO; hereinafter "Uyeno Transtech ") to supply marine ammonia fuel and jointly develop supply sites in Japan.

With worldwide momentum for decarbonization growing, in the field of marine transportation the International Maritime Organization (IMO) adopted a greenhouse gas (GHG) reduction strategy in 2018. The strategy calls for a 40% improvement in efficiency by 2030 compared to 2008 and a 50% total reduction compared with 2008 by the year 2050. Additionally, the strategy calls for the phasing out of greenhouse gas emissions (zero emissions) as early as possible in this century. To meet these goals, the early development of ships designed to be zero emission ships is expected. Ammonia in particular has attracted attention in a number of fields as a candidate alternative fuel. In order to achieve the development of ships that use ammonia as their main fuel, the stable supply of marine ammonia fuel and the development of supply sites are essential elements.

This latest joint development effort is not only focused on developing supply sites for marine ammonia fuel inside Japan, but is also positioned as part of an integrated project that includes the joint development of ammonia fuel ships, the ownership and operation of these ships, the introduction of marine ammonia fuel and facilities for the supply of that fuel, efforts which ITOCHU and ITOCHU ENEX has been pursuing in parallel. Working in cooperation with companies in Japan and overseas as well as related government agencies, the companies will pursue initiatives aimed at reducing greenhouse gases.

[The roles of each company in the joint development]

Company	Role
Ube Industries	Using its insight as the largest producer of ammonia in Japan, Ube Industries will undertake research and development on the supply of marine ammonia fuel itself and on the development of the onshore facilities required for its supply.
Uyeno Transtech	From its standpoint as the largest owner and operator of domestic ships in Japan, and as a company that is already involved in the marine LNG fuel supply business, Uyeno Transtech will conduct research and development into marine ammonia fuel supply ships and into the formulation of safety standards for refueling.
ITOCHU ENEX	In addition to its track record supplying marine fuel, ITOCHU ENEX will make use of its experience and expertise related to the operation of fuel supply refueling ships and conduct research and development into ammonia fuel supply sites in Japan.
ITOCHU	ITOCHU will develop marine ammonia fuel supply sites and fuel supply ships. In addition, leveraging its network of industries and companies, ITOCHU will take the initiative in forming partnerships with domestic and overseas parties including

	shippers, shipping companies and ammonia related businesses, while driving the joint development of ammonia fueled ships and conducting joint research to realize an integrated project that includes the ownership and operation of such ships.
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【Inquiries】

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Marine Fuels Department

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