May 21, 2020

Asahi Tanker Co., Ltd. Idemitsu Kosan Co., Ltd. Exeno Yamamizu Corporation Mitsui O.S.K. Lines, Ltd. Tokio Marine & Nichido Fire Insurance Co., Ltd. Tokyo Electric Power Company Mitsubishi Corporation

ée5 Consortium' Established to Promote Zero-Emission Electric Vessel; ∼Project Encompasses Development, Realization, Commercialization~

TOKYO — Seven companies—Asahi Tanker Co., Ltd., Idemitsu Kosan Co., Ltd., Exeno Yamamizu Corporation, Mitsui O.S.K. Lines, Ltd., Tokio Marine & Nichido Fire Insurance Co., Ltd., Tokyo Electric Power Company, and Mitsubishi Corporation today announced establishment of the "e5 Consortium," with the goal of establishing new ocean shipping infrastructure services through various initiatives to develop, realize, and commercialize zero-emission electric vessels.



An image of the zero-emission electric tanker

Coastal shipping in Japan faces structural issues such as a shortage of mariners due to the aging of the seagoing workforce, not to mention the aging of the vessels. In addition, the ocean shipping industry has urged the coastal shipping industry to reduce emissions of greenhouse gases (GHGs) as one of Japan's measures to address climate change. The seven e5 Consortium corporate members are focusing their attention on fulfilling the potential of electric vessels to solve these urgent issues. The consortium aims to establish a platform that offers innovative ocean shipping infrastructure services based on electric vessels bringing to bear the strength, technological know-how, networks, and other advantages of each member company. As the first phrase of the project, the consortium plans to launch the world's first zero-emission electric tanker, powered by large-capacity lithium ion batteries, in March 2022 (Note 1). e5 Lab. Inc. will serve as the executive office of the e5 Consortium. (Note 2)

The e5 Consortium will promote the sustainable growth of coastal shipping in Japan and contribute to the nation's social and economic development by providing added value to the coastal shipping industry through the development and introduction of advanced vessels.

What is 'e5'?

A provider of safe, reliable, and high-quality transport service, based on the realization of five core values: "electrification," "environment," "evolution," "efficiency," and "economics."

Note 1: Asahi Tanker decided to build two electric tankers powered by lithium-ion batteries, the first such vessels in the world: <u>https://asahi-tanker.com/news-release/2020/135/</u> Zero emission electric tanker concept video: <u>https://www.youtube.com/watch?y=6sJjzCbRFWw&feature=youtu.be</u>

Note 2: e5 Lab. Inc. (President: Tomoaki Ichida; Headquarters: Chiyoda-ku, Tokyo), jointly established by four companies of Asahi Tanker Co., Ltd., Exeno Yamamizu Corporation, Mitsui O.S.K. Lines, Ltd., and Mitsubishi Corporation, has enthusiastically promoted innovative projects to bring digital solutions and digital transformation to the ocean shipping industry, not only with electric vessels, but also hydrogen fuel batteries, onboard automated equipment, onboard broadband, remote control vessels, and development of a common integrated OS for ocean (vessels). URL of e5 lab Inc.:

http://e5ship.com/

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Exeno Yamamizu	1-1-3 Otemachi, Chiyoda-ku,	President Hisaaki Masuda
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Mitsui O.S.K. Lines, Lt	2-1-1 Toranomon, Minato-ku,	President & CEO Junichiro
d.	Tokyo	Ikeda
Tokio Marine & Nichido	1-2-1 Marunouchi, Chiyoda-	President Shinichi Hirose
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e5 Consortium members

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