



October 7, 2022
Mitsui O.S.K. Lines, Ltd.
Tohoku Electric Power Co., Inc.

Delivery of *SHOFU MARU*, World's First Cargo Vessel equipped with 'Wind Challenger' Hard Sail

TOKYO—Mitsui O.S.K. Lines, Ltd. (MOL; President & CEO: Takeshi Hashimoto, Headquarters: Minato-ku, Tokyo) and Tohoku Electric Power Co., Inc. (President: Kojiro Higuchi; Headquarters: Sendai-shi, Miyagi Prefecture) announced that a coal carrier equipped with Wind Challenger (a hard sail wind power propulsion system)*¹ was delivered and started operation on October 7, 2022. At the completion of the vessel, a naming and handover ceremony was held at Oshima Shipbuilding Co., Ltd. (President: Eiichi Hiraga; Headquarters: Saikai-shi, Nagasaki Prefecture) and the vessel was named *SHOFU MARU**².

The *SHOFU MARU* is the world's first vessel equipped with Wind Challenger, and will transport coal*³ mainly from Australia, Indonesia, and North America as a dedicated vessel for Tohoku Electric Power Co.

The introduction of the Wind Challenger is expected to reduce greenhouse gas (GHG) emissions about 5% on a Japan-Australia voyage and about 8% on a Japan-North America West Coast voyage, compared to a conventional vessel of the same type, and contribute to curbing GHG emissions during fuel transportation.

MOL and Tohoku Electric Power Co. continue to work toward both stable transport of energy resources and reduction of their environmental impact.

*1 The Wind Challenger is a system, developed mainly by MOL and Oshima Shipbuilding, which uses a telescoping hard sail that harnesses wind power to propel the vessel. By installing the system, it is possible to reduce the amount of fuel used for operation, which is expected to reduce environmental impact and improve economic efficiency.

*2 *SHO FU* means "pine (*matsu* in Japanese)" and "wind (*kaze* in Japanese)". The vessel name is derived from 'Kaze no Matsubara', the black pine trees planted for the purpose of erosion control in Noshiro, Akita Prefecture, and Wind from Wind Challenger, with the hope that the vessel will operate powerfully even under harsh conditions.

*3 The shipping contract was announced on December 10, 2020.

(Exhibit) Outline of the coal carrier *SHOFU MARU* with the Wind Challenger

(Reference) A video of the completion of the coal carrier *SHOFU MARU* the Wind Challenger

URL : <https://www.youtube.com/watch?v=3gJLS7NmGZs>

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(Exhibit)

Outline of the coal carrier SHOFU MARU with the Wind Challenger

1. Outline

Ship owner/operator	Mitsui O.S.K. Lines, Ltd.
LOA/Breadth	About 235m/About 43m
Deadweight tonnage	About 100,422 tons
Shipyard	Oshima Shipbuilding Co., Ltd.
Flag/Port of registry	Japan/Port of Noshiro
Wind Challenger Specifications	Height: Up to about 53 m (4-tier) Width: About 15 m Sail material: Fiber Reinforced Plastic

2. Photo

