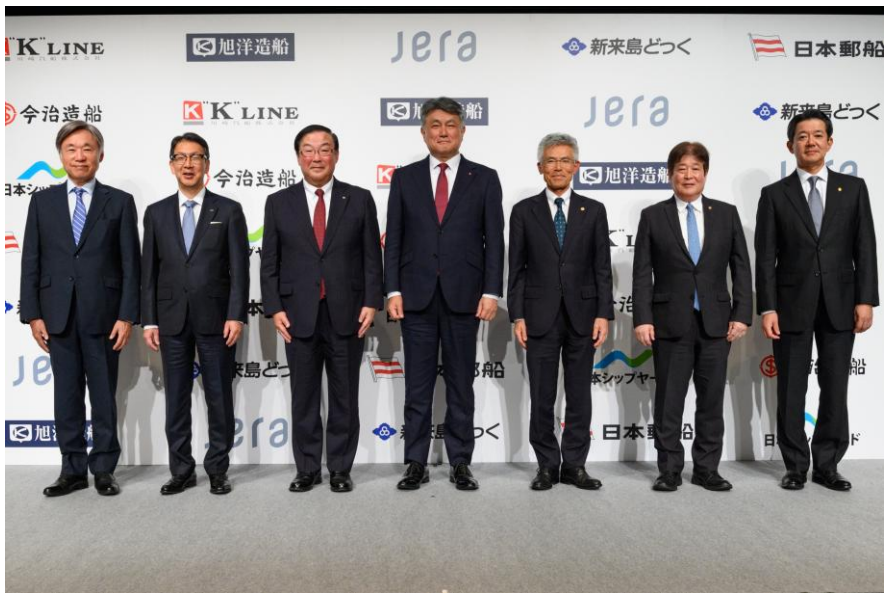
Imabari Shipbuilding Co., Ltd.
Kawasaki Kisen Kaisha, Ltd.
Kyokuyo Shipyard Corporation
JERA Co., Inc.
Shin Kurushima Dockyard Co., Ltd.
Nippon Yusen Kabushiki Kaisha
Nihon Shipyard Co., Ltd.

Seven Japanese Companies Jointly Announce to Build and Operate Four Ammonia-Fueled Car Carriers and Commercialize the Ammonia Bunkering Business

-- World-First Integrated Development from Fuel Procurement to Supply Infrastructure to Advance the Decarbonization of International Shipping from Japan's Chubu Region –

TOKYO, Oct 27, 2026 － Imabari Shipbuilding Co., Ltd. ("Imabari Shipbuilding"), Kawasaki Kisen Kaisha, Ltd. (""K" LINE"), Kyokuyo Shipyard Corporation ("Kyokuyo Shipyard"), JERA Co., Inc. ("JERA"), Shin Kurushima Dockyard Co., Ltd. ("Shin Kurushima Dockyard"), Nippon Yusen Kabushiki Kaisha ("NYK"), and Nihon Shipyard Co., Ltd. ("NSY"), today jointly announced that they have agreed to develop an ammonia fuel supply chain in Japan's Chubu region and to build and operate four ammonia-fueled car carriers supported by the supply chain.





- **Purpose and Overview of the Project**

This project will be a comprehensive initiative to develop an integrated ammonia fuel supply chain, from the procurement of green ammonia and development of ship loading facilities to the construction of a dedicated bunkering vessel* with fuel supply through ship-to-ship (STS) bunkering,** and the operation of ammonia-fueled car carriers.

To address the need to reduce greenhouse gas (GHG) emissions from international shipping as well as customers' Scope 3 emissions, the seven companies aim to establish a stable ammonia fuel supply system through the integrated development of the supply chain . This project will be the world's first commercial supply chain, with the Chubu region serving as the hub, integrating fuel procurement, supply infrastructure at the Hekinan terminal, and vessel operations.

Ammonia is a next generation fuel that emits no carbon dioxide (CO_2) when combusted and can be stored and transported in liquid form. In particular, steady progress is being made toward the practical use of low-carbon ammonia, which is produced with reduced CO_2 emissions during the manufacturing process, in the power generation sector. In the future, its use is also expected to expand into the transport sector, including maritime applications and other industries.

By combining their respective technologies, expertise, and infrastructure, the seven companies will establish an advanced integrated business model that brings together ammonia fuel procurement and supply, the construction of ammonia-fueled car carriers, and development of an ammonia bunkering vessel. Through this initiative, the companies will promote the decarbonization of international shipping through a Japanese industry collaboration while also supporting the broader utilization of ammonia for industrial and other applications. In doing so, they aim to contribute to the realization of a sustainable society and the development of a low-carbon ammonia market.

* Bunkering vessel
A specialized vessel used to supply fuel to ships at sea or in port. Under this project, a dedicated vessel will be built and operated with advanced systems to prevent leakage, along with other equipment designed to address ammonia's toxicity and corrosiveness.

** Ship-to-ship (STS) bunkering
A method of supplying fuel in which a bunkering vessel comes alongside a vessel berthed at a quay or pier or at anchor and transfers fuel directly.

- **Fuel Procurement and Development of Ship Loading Facilities (JERA)**

JERA is advancing the development of a lower-carbon ammonia value chain as part of its efforts to achieving net-zero CO_2 emissions from its domestic and overseas businesses by 2050, and contribute to global decarbonization and address the world's energy issues. Its initiatives include the use of lower-carbon ammonia at the Hekinan Thermal Power Station for fuel substitution to decarbonize the thermal power generation business, and the installation of tank truck loading facilities to supply lower-carbon ammonia to other businesses.

Under this project, JERA will procure green ammonia produced using renewable energy. These supplies are intended to come from regions including India. In addition, JERA will develop new ship loading facilities at the ammonia receiving terminal adjacent to the Hekinan Thermal Power Station, which will establish a stable supply system for the bunkering vessel. JERA will contribute significantly to the decarbonization of international shipping and to Japan's decarbonization efforts, with the Chubu region serving as a key hub.

- **Building of Ammonia Bunkering Vessel and Fuel Supply and Sales Structure ("K" LINE, Kyokuyo Shipyard, and NYK)**

Kyokuyo Shipyard, which possesses advanced technical capabilities in building specialized vessels, will build the ammonia bunkering vessel. It is scheduled for completion in 2030, the same as ammonia-fueled car carriers. Following completion, the vessel will be owned and operated by NYK or a wholly owned NYK subsidiary.

"K" LINE and NYK will also establish a fuel sales joint venture, equally owned by the two companies, to facilitate fuel sales and supply between vessels. Using a bunkering vessel owned and operated by NYK or a wholly owned NYK subsidiary, the joint venture will supply ammonia fuel to car carriers through STS bunkering.

By combining the stringent safety standards and operational expertise the two companies have accumulated in handling ammonia and LNG, they aim to establish a safe, highly efficient fuel supply system.

- **Building and Operation of Four Ammonia-Fueled Car Carriers (Imabari Shipbuilding, "K" LINE, Shin Kurushima Dockyard, NYK, and NSY)**

"K" LINE and NYK are working to transition to next-generation fuels to achieve net-zero emissions by 2050 and provide cleaner transportation services that meet society's growing need for low-carbon and decarbonized solutions. Under this project, each company will introduce two ammonia-fueled car carriers, for a total of four vessels. Following their scheduled completion in 2030, the vessels are expected to transport finished vehicles for customers including Toyota Motor Corporation.

The vessels will be Japan's first ammonia-fueled car carriers. They will be equipped with dual-fuel engines capable of using ammonia as fuel, as well as fuel tanks with sufficient capacity to enable trans-Pacific voyages using ammonia fuel alone.

To ensure the safe use of ammonia, which is toxic and corrosive, the vessels will also incorporate a multilayered safety concept, including measures to prevent and detect leaks and to neutralize ammonia in the event of a leak.

Drawing on the world's most extensive track record in building car carriers, Shin Kurushima Dockyard will lead the basic design phase. The vessels will then be jointly designed and built by Shin Kurushima Dockyard, Imabari Shipbuilding, and NSY — each bringing deep, proven expertise in car-carrier construction.

By bringing together their advanced technological and shipbuilding capabilities, the three companies aim to realize next-generation vessels that combine high safety in open-sea operations with world-leading environmental performance, thereby demonstrating the competitiveness of Japan's shipbuilding technologies on the global stage.

- Roles and Responsibilities

Business Area	Company	Main Roles and Initiatives
Fuel Procurement and Reloading Facilities	JERA Co., Inc.	Procurement of green ammonia, including supplies from India; development of loading facilities at the terminal adjacent to the Hekinan Thermal Power Station; and fuel supply
Building of Ammonia Bunkering Vessel	Kyokuyo Shipyard Corporation	Design and building of the commercial ammonia bunkering vessel
Ownership and Operation of Ammonia Bunkering Vessel / Fuel Supply	Ownership: Nippon Yusen Kabushiki Kaisha or a wholly owned subsidiary Fuel supply: Kawasaki Kisen Kaisha, Ltd. and Nippon Yusen Kabushiki Kaisha (joint venture)	Ownership and operation of the ammonia bunkering vessel; and sale and supply of ammonia fuel through the equally owned joint venture via STS bunkering, primarily at the ports of Nagoya and Mikawa
Design and Building of Ammonia-Fueled Car Carriers	Imabari Shipbuilding Co., Ltd. Shin Kurushima Dockyard Co., Ltd. Nihon Shipyard Co., Ltd.	Design and building of four ammonia-fueled car carriers equipped with dual-fuel engines
Operation of Ammonia-Fueled Car Carriers	Kawasaki Kisen Kaisha, Ltd. Nippon Yusen Kabushiki Kaisha	Ownership, management, and operation of ammonia-fueled car carriers

