

HMM latest carrier to secure sourcing, storage for alternative fuels



HMM will test the use of biofuel in three of its 24,000-TEU vessels in the second half of the year. Photo credit: HMM.

Greg Knowler, Senior Editor Europe | Apr 26, 2023, 10:34 AM EDT

HMM signed two alternative fuel deals this week as the ocean carrier tests a range of options that could reduce greenhouse gas emissions or provide carbon-neutral power for its vessels.

The South Korean carrier signed a memorandum of understanding (MoU) with GS Caltex for the supply of biofuel that HMM will trial on its three new 24,000-TEU ships in the second half of the year, the liner said in a statement Wednesday.

Earlier this week, HMM and South Korean chemical manufacturer Lotte Fine Chemical signed a deal for the transportation, storage, and bunkering of ammonia and methanol fuel.

A spokesperson for HMM told the *Journal of Commerce* it was too early to say which of the alternative fuels being researched and tested would ultimately be used by its fleet.

“HMM does not consider a single carbon-neutral fuel at this stage ... we are studying a range of clean fuels for use in our vessels in terms of commercial viability, availability, and scalability of carbon-neutral fuels,” the spokesperson said, adding it was all part of the carrier’s mid- to long-term approach to green shipping.

Lotte operates South Korea's largest ammonia storage facility. Under the agreement, HMM will carry ammonia fuel secured by Lotte and take charge of overall vessel operation during transportation. Lotte will procure ammonia and methanol fuel for the future supply to HMM vessels. HMM signed new ship construction contracts for nine 9,000-TEU methanol-powered ships in February 2022.

But the deal with GS Caltex will have a more immediate impact on the carrier’s ships as marine biofuel tests are conducted on the largest container vessels in the HMM fleet in the second half.

Marine biofuels are made up of 30 percent biodiesel derived from used cooking oil and 70 percent high-sulfur fuel oil (HSFO). Although biodiesel is not fossil-fuel free, it reduces greenhouse gas emissions by 80 percent compared with conventional fuels and is compatible with current ship engines without requiring technological modification.

Capturing carbon at sea

HMM will also conduct field tests of an onboard carbon capture system (OCCS) for container ships in the second half of this year. The system is an advanced technology designed to capture CO2 from greenhouse gas emissions generated during vessel operation, preventing its emission into the atmosphere.

HMM is the latest carrier to enter agreements aimed at sourcing sustainable fuel for its fleet. CMA CGM and French energy giant Engie are co-investing in a biomethane project in the North European hub port of Le Havre, while Maersk has signed strategic agreements with six companies to provide a total of 730,000 tonnes of methanol per year by the end of 2025 to drive its 19-strong methanol-powered fleet.

Container lines invest in alternative fuel ships, but traditional bunkers dominate

Global TEU capacity of container ships on order capable of running on methanol, liquefied natural gas (LNG), and traditional marine fuel



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Meanwhile, classification society DNV has joined a multi-party working group on methanol bunkering in Singapore, the world's largest bunkering hub. The group was formed by the Singapore Chemical Industry Council in consultation with the Maritime and Port Authority of Singapore (MPA).

Cristina Saenz de Santa Maria, regional manager for Southeast Asia, Pacific, and India at DNV Maritime, said initiatives such as the working group were essential as the energy transition accelerated and the maritime industry moved toward a multi-fuel future.

"For methanol and other alternative fuels to continue to build traction within shipping, we need to build confidence and encourage a wider uptake," she said in a statement Wednesday. "This can only be accomplished through standards that enhance safety while providing a comprehensive and practical framework for all stakeholders."

Contact Greg Knowler at greg.knowler@spglobal.com and follow him on Twitter: [@greg_knowler](https://twitter.com/greg_knowler).