

February 21, 2023

ONE brings together decarbonization and digitization in 4th successful biofuel trial

February 21st 2023, Singapore - Ocean Network Express (ONE) is pleased to announce the successful completion of the biofuel trial onboard MOL ENDOWMENT.

Drop-in biofuel pilot project

Conducted as part of the Global Centre for Maritime Decarbonisation's (GCMD) pilot project to establish a quality, quantity and GHG abatement assurance framework for drop-in biofuels, the M/V MOL ENDOWMENT was refuelled with 992 metric tons of marine biofuel product at the Port of Singapore, on December 21st, 2022. The vessel, deployed on ONE's Japan Straits Malaysia (JSM) service, fully utilized the biofuel in 20 days. Biofuel consumption started on January 7th, 2023, after the vessel left the port of Kobe in Japan, passing Keelung, Hong Kong and then sailed to Southeast Asia. The biofuel was fully consumed on January 26th, 2023, on its return voyage to Japan from Port Klang.

The biofuel used was B24, a blend of Used Cooking Oil Methyl Ester (UCOME), and Very Low Sulphur Fuel Oil (VLSFO). UCOME is produced from Used Cooking Oil (UCO), which is derived from residue or feedstocks labelled as 100% waste and has been certified for its sustainability in accordance with internationally recognized ISCC standards. The biofuel blend was supplied by Chevron, and it is considered a sustainable fuel that is similar to petroleum-derived marine fuels in terms of its operational application. Tracing these biofuels along the supply chain from production to use is a key aspect of GCMD's pilot to articulate a robust GHG abatement assurance framework. As such, the biofuel and its blends were dosed with a physical tracer and subjected to multiple samplings across its supply chain for laboratory analysis. The resultant data will be used by GCMD as inputs in developing the assurance framework.

The trial required no modifications to the marine engines or fuel infrastructure. It also demonstrated that marine biofuel products can be considered 'Drop-in fuels' for reducing carbon emissions from ships. The use and testing of the biofuel were performed in partnership with shipowner Mitsui O.S.K.

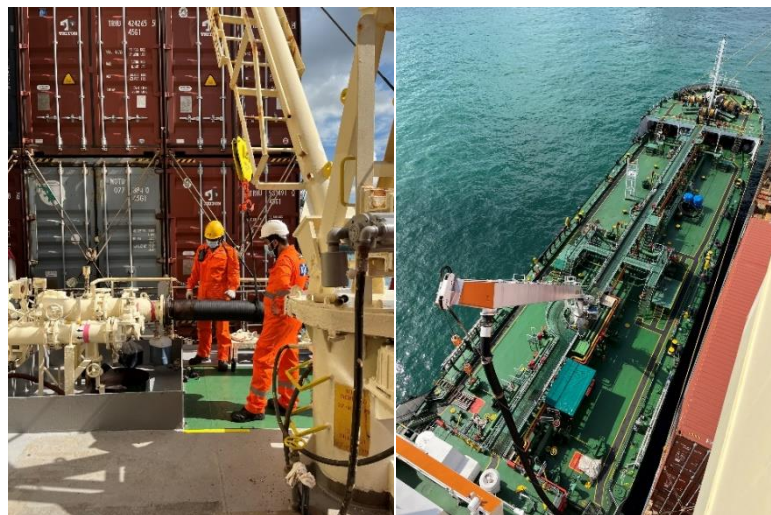
Lines, Ltd., and the biofuel was supplied in accordance with the standard on specifications of marine biofuel (WA2:2022) established by the Maritime and Port Authority of Singapore.

Digitization of Bunkering Documents

The trial also marked a step forward in digitization as the biofuel transaction was made digitally through the Singapore Trade Data Exchange (SGTraDex). SGTraDex is a digital utility that facilitates the sharing of data between supply chain ecosystem partners through a common data highway to enable secure exchange of information.

During the biofuel trial, the exchange of documents between ONE and Chevron were made through SGTraDex. These documents include the Certificate of Quality, Bunkering Sales Confirmation, Bunker Delivery Note, Bunkering Sales Invoice (Delivery). Additionally, supporting documents, such as Mass Flow Meter (MFM) receipts, MFM seals checklist, meter recording form and International Sustainability and Carbon (ISCC) Certification, were also done digitally. This digitization of bunkering documents helped to reduce the paper-based processes and made the transaction both more efficient and secure.

“The maritime industry has many interconnected players, and collaboration is key in moving our decarbonization ambition forward. It is encouraging to see the various partners at different points of the supply chain come together in this biofuel trial for the common goal of a better, more sustainable future. At ONE, digitization and decarbonization are some of our top business priorities. This 4th biofuel trial marks a step forward in our goal to achieve net-zero by 2050.” said Jeremy Nixon, CEO of Ocean Network Express.



Images from biofuel bunkering on MOL Endowment