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Astomos Energy Corporation  
NYK Line

Marine Biofuel Demonstration on LPG Carrier Completed

-- *Confirming the Safety of the Marine Biofuel Supply Chain* --

Astomos Energy Corporation (Astomos) and NYK Line have completed a pilot on the liquefied petroleum gas (LPG) carrier Lycaste Peace (owned by NYK Line and chartered by Astomos), bunkering FAME B24\* marine biofuel in Singapore. The test voyage was completed on February 26. The demonstration is part of a project to establish an assurance framework for the supply chain of sustainable biofuels led by the Global Centre for Maritime Decarbonisation (GCMD), a non-profit organization in Singapore that aims to support the decarbonisation of the shipping industry.

In this demonstration test, Astomos and NYK Line, together with the biofuel bunker supplier, proved that the sustainable biofuels in this case is traceable along the supply chain, by tracking the transportation of biofuel from the place of production to Singapore, blending the biofuel with conventional fuels, the site of bunkering, and management of the blended fuels.

Biofuels can be used without modifying the existing ship's engines and port infrastructure. Furthermore, although biofuels generate carbon dioxide (CO<sub>2</sub>) when combusted, they are considered carbon-neutral because they are made from biomass and feedstock, such as waste cooking oil. So biofuels are expected to be one of the most promising next-generation fuels for decarbonization.

This project, announced at the end of July 2022, involved Astomos and NYK Line, as part of a consortium consisting of 19 industry partners and 13 vessels, including container ships, tankers, and bulk carriers, bunkering in five supply chains. The trials aim to establish a framework that provides transparency in the supply chain of marine biofuels from upstream to downstream in order to ensure their wider adoption by the industry. The framework will help to establish supply chain transparency for next-generation fuels other than biofuels, such as ammonia.

Astomos and NYK Line will continue to collaborate on efforts to establish transparency in the next generation fuel supply chain, including marine biofuels.

## Reference

<https://www.gcformd.org/press-release-dropin-biofuel>

<https://www.gcformd.org/post/gcmd-led-consortium-successfully-completes-trialling-two-supply-chains-of-sustainable-biofuels>

<LYCASTE PEACE>



Length: 230.00 meters

Width: 36.60 meters

Designed draft: 10.782 meters

Gross tonnage: 46,021.00 tons

Cargo capacity: 49,999.00 tons

Year built: 2003

Shipbuilder: Mitsubishi Heavy Industries, Ltd.

(Note 1) FAME B24: FAME stands for Fatty Acid Methyl Ester and includes different types such as UCOME (Used Cooking Oil Methyl Ester), PME (Palm Methyl Ester), RME (Rapeseed), SME (Soybean), and TME (Tallow). B24 refers to a 24% blending ratio, and in this case, the ship performed a trial voyage using fuel containing 24% FAME (UCOME).

Company Overview:

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