

# Holland America Line Reports Positive Results of Cruise Industry's First Long-Term Biofuel Test on **Board Volendam at Port of Rotterdam**

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The 20-day trial of advanced biofuel achieved a decrease in lifecycle emissions compared to marine gas oil

SEATTLE, Sept. 16, 2022 /PRNewswire/ -- Holland America Line completed the cruise industry's first multiweek test of biofuels on board Volendam at Port of Rotterdam in the Netherlands. The 20-day test was conducted in partnership with GoodFuels, a leading producer and supplier of sustainable biofuels for the transportation industry, and Wärtsilä, a global leader in power and propulsion technologies and lifecycle solutions for the marine market.



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The assessment was completed September 7. In the first five days of the test the ship used a mix of 30% biofuel and 70% marine gas oil (MGO) in one of its main auxiliary engines. For the final 15 days of testing, the ship used 100% biofuel. According to GoodFuels, there was a 78% decrease in lifecycle fuel resource on a Holland America CO2 emissions during the final 15 days of trial compared to marine gas oil emissions.

"We were excited to have this opportunity to test a next-generation fuel resource on a Holland America Line ship, and we are very encouraged by the results," said Gus Antorcha, president of Holland America Line. "As part of our commitment to sustainability, we have always looked for cutting-edge solutions to environmental challenges that will help us meet Carnival Corporation's sustainability goals over the coming decades."

Dutch-flagged Volendam was selected for the test since it was located at the Port of Rotterdam, one of the global ports where GoodFuels operates the infrastructure necessary to provide biofuel waterside fueling services. There is no significant difference for the ship's team members in handling regular fuel oil versus biofuel. The use of a "drop-in" biofuel such as the one tested on Volendam requires no shipboard refitting or special equipment.

#### What Are Biofuels?

The advanced biofuel is derived from feedstocks that are certified as 100% waste or residue, with no land-use issues and no competition with food production or deforestation.

"Marine biofuel is already the biggest low carbon marine fuel in the world and we expect usage to rise sharply to 10% of total volume by 2030," said Dirk Kronemeijer, CEO and founder of GoodFuels

"Our extensive work in testing alternative marine fuels is a central part of our efforts to shape viable decarbonisation options for our customers," said Ricardo Opperman, managing director of Wärtsilä North America Inc. "We are continuously developing our engine technology to accept and retain operational and environmental efficiency levels with various future fuels, including biofuels. These sea trials with 100% biofuel will be especially important — fo Carnival Corporation, for Goodfuels, for Wärtsilä, and for the industry as a whole."

## **Supporting Corporate Sustainability**

Holland America Line is the first Carnival Corporation brand to run a long-term 100% biofuel shipboard test. Carnival Corporation's German brand AIDA also partnered with Goodfuels in July to run a blended biofuel test on board AIDAprima in Rotterdam. While biofuels have been tested on large diesel engines at shoreside research facilities and on a few cargo ships, these represented the first live tests on working cruise ships.

The two brands' biofuel tests support the overall environmental mission, goals and aspirations of Carnival Corporation. Those include achieving a 40% reduction in carbon per available lower-berth-day by 2030; expanding its alternative fuels strategy across its liquefied natural gas (LNG) program and battery, fuel cell and biofuel capabilities; delivering a 50% reduction in absolute air emissions of particulate matter by 2030; and the aspiration to achieve net carbon neutral operations by 2050.

For more information about Holland America Line, consult a travel advisor, call 1-877-SAIL HAL (877-724-5425) or visit hollandamerica.com.

Find Holland America Line on Twitter, Facebook, Instagram and the Holland America Blog. You can also access all social media outlets via the home page at hollandamerica.com.

### About Holland America Line [a division of Carnival Corporation and plc (NYSE: CCL and CUK)]

Holland America Line has been exploring the world for 150 years with expertly crafted itineraries, extraordinary service and genuine connections to the destinations. Offering an ideal mid-sized ship experience, its fleet visits nearly 400 ports in 114 countries around the world and has shared the thrill of Alaska for 75 years — longer than any other cruise lineHolland America Line's 11 vessels feature a diverse range of enriching activities and amenities focused on destination immersion and personalized travel. The best live music at sea fills each evening at Music Walk, and dining venues feature exclusive selections from a Culinary Council of world-famous chefs.

#### **About GoodFuels**

GoodFuels is a global pioneer in sustainable marine fuels, with offices in Europe and Singapore. The Netherlands-headquartered company has created a one-stop-shop for marine industry customers, integrating the entire supply chain for sustainable marine biofuels. From feedstock to tank, GoodFuels' proposition covers elements of sourcing feedstock and ensuring its 100% sustainability, the production and refining, the global distribution, quality assurance, and marketing programs with ports, governments, and cargo owners. GoodFuels is part of the GoodNRG Group, which is active under various labels and companies in sales, marketing, trading, R&D, and production of truly sustainable decarbonization solutions for the global transport industry. Learn more about GoodFuels at goodfuels.com.

#### Wärtsilä Marine Power in brief

Wärtsilä Marine Power leads the industry in its journey towards a decarbonised and sustainable future. Our broad portfolio of engines, propulsion systems, hybrid technology, and integrated powertrain systems delivers the efficiency, reliability, safety, and environmental performance needed to support our customers. Our offering includes performance-based agreements, lifecycle solutions, and an unrivalled global network of maritime expertise. Learn more at <a href="https://www.wartsila.com/marine">www.wartsila.com/marine</a>.

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