

Greek owner Almi Marine unveils innovative dual-fuel Ultramax design

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Greek dry bulk specialist Almi Marine Management is preparing to unveil a pioneering dual-fuel vessel design at Nor-Shipping, building on a series of innovative newbuilding additions to its fleet in recent years

The shipowner has partnered with the Shanghai Merchant Ship Design and Research Institute (SDARI) and RINA in a joint development project to create a dual-fuel VLSFO/LNG and hydrogen-powered Ultramax bulk carrier featuring electric propulsion.

The vessel concept is based on SDARI's latest Green Dolphin 64 platform and incorporates a fully electrified ship design. It will feature a dual-fuel engine and an onboard hydrogen reforming plant, eliminating the technical and cost-related challenges of liquid hydrogen storage.

In a social media post, Almi Marine managing director Christos Hadjigeorgiou explained that LNG and reformer-produced hydrogen will be cofired in the gensets at controlled ratios. He added that precombustion CO₂ capture will further reduce greenhouse gas emissions, enhancing the vessel's carbon intensity indicator (CII) and its trajectory toward greenhouse gas fuel intensity compliance.

The design has received approval in principle, which will be formally presented during Nor-Shipping on 5 June.

Long-term charter required

Mr Hadjigeorgiou told Riviera the first step in the process is completing the vessel's preliminary design, followed by cost estimation. He emphasised

securing a long-term charter agreement is a prerequisite before construction can begin on a project of this scale and complexity.

Almi Marine has a track record of forward-thinking investments. In 2022, it was among the first shipping companies to order EEDI-Phase 3 compliant bulk carriers, ahead of the broader newbuilding wave that followed. At the time, the company opted for conventionally fuelled ships that would consume 50% less fuel per unit of transported cargo, while closely monitoring the evolving landscape of alternative fuels.

Mr Hadjigeorgiou has consistently emphasised in past interviews that new vessels must be designed with flexibility in mind, allowing them to adapt as fuel technologies and regulatory frameworks evolve.

Almi Marine currently manages a fleet of seven Ultramax and Supramax bulk carriers, with a total capacity of 420,819 dwt.