Zero Emission Hydrogen USV Design Wins Clean Maritime Funding



SEA-KIT International has secured funding through Round 2 of the Clean Maritime Demonstration Competition (CMDC) to design a hydrogen powered, zero emission uncrewed surface vessel (USV).

SEA-KIT, a leading designer and builder of commercially proven USVs, worked with clean tech disruptor Bramble Energy on a successful CMDC Round 1 project to

marinize a Printed Circuit Board (PCB) Hydrogen Fuel Cell. This latest funding win will see the two companies continue their collaboration, implementing Round 1 outputs into a proof-of-concept USV design that meets the performance, reliability and cost saving challenges of a fast-growing, global marine autonomy market – with zero carbon emissions.

The 'Zero Emission H-Class Ocean USV' project, scheduled to start in January 2023, represents a significant step towards the commercialization of clean fuel vessel technology.

Deepwater Offshore Operations and Coastal Survey

Ben Simpson, <u>SEA-KIT</u> CEO, said: "The CMDC2 funding win supports our continued efforts to help the UK meet its emissions target of a reduction of carbon from shipping by at least 50% by 2050. This USV will be suited to deepwater offshore operations as well as coastal survey and the launch and recovery of ROVs. The combination of highly capable surveying and inspection instrumentation, improved safety gained from uncrewed, remotely operated vessels and zero carbon emissions will make a very compelling alternative option for the offshore energy, defence and scientific research markets."

The SEA-KIT H-Class USV is a highly configurable design based on operational data and feedback from the company's established X-Class vessels. Design work will be carried out in accordance with the Lloyd's Register Approval in Principle (AiP) process to ensure, as far as possible, that the resulting unmanned technology will satisfy regulatory requirements.

Vidal Bharath, chief commercial officer at <u>Bramble Energy</u>, said: "Fuel cells provide an extremely attractive value proposition to the marine industry, so it is with great pleasure that we continue collaborating with SEA-KIT on the CMDC project. It's the perfect opportunity to demonstrate how our decarbonizing technology can play a key role in the maritime industry's journey towards achieving net zero."

Decarbonizing the Maritime Sector

lydro

The Zero Emission H-Class Ocean USV project is part of the <u>Clean Maritime Demonstration Competition Round 2</u> (CMDC2), which was launched in May 2022 and is funded by the Department for Transport and delivered in partnership with Innovate UK. As part of CMDC2, the department allocated over £14m to 31 projects supported by 121 organizations from across the UK to deliver feasibility studies and collaborative R&D projects in clean maritime solutions.

CMDC2 is part of the UK Shipping Office for Reducing Emissions' (UK SHORE) flagship multi-year CMDC programme. In March 2022, the department announced the biggest government investment ever in the UK commercial maritime sector, allocating £206m to <u>UK SHORE</u>, a new division within the Department for Transport focused on decarbonizing the maritime sector. UK SHORE is delivering a suite of interventions throughout 2022–2025 aimed at accelerating the design, manufacture and operation of UK-made clean maritime technologies and unlocking an industry-led transition to net zero.

The SEA-KIT H-Class USV is a highly configurable design based on operational data and feedback from the company's established X-Class vessels. (Courtesy: SEA-KIT International)