Shipping company to develop carbon-neutral maritime transport using EUDP grants

The Danish shipping company MHO-Co is heading a consortium that will spend EUR 4.5 million during the next three years on developing green solutions for the future of the maritime industry. Together with Aalborg University, among others, and with grants from the Energy Technology Development and Demonstration Program (EUDP), MHO-Co will test fuel cells and new battery technology on the shipping company's advanced hybrid vessels.

- The aim is to develop environmentally-friendly technology to replace fossil fuels and dominate the maritime industry in the future. With the EUDP grants as well as with knowledge and innovation from other participants, we will set new standards for what is possible in the maritime industry, says director of the shipping company MHO-Co, Mik Henriksen.

The Danish shipping company is the initiator of the consortium which, apart from the companies Danfoss, Ballard Power Systems Europe A/S, Sterling PlanB and Stuart Friezer Marine, consists of research engineers from Aalborg University. They have joined forces on the project at a total of EUR 4.5 million, of which EUR 2.15 million are grants from the Energy Technology Development and Demonstration Program (EUDP).

Fuel cells and batteries

Over the next three years, the six partners have an ambitious plan to develop and test a propulsion system for maritime transport that does not emit carbon dioxide. During this period, MHO-Co will test both fuel cells and liquid cooling system batteries.

Ballard Power Systems Europe A/S will develop the first fuel cells for shipping.

- Based on our experience with fuel cells for heavy transport, we are now focusing on how fuel cells and hydrogen can also become the green solution of the future in the maritime sector. This project is groundbreaking because together we can test the different options and find a sustainable solution, which can be approved by the authorities and live up to the current requirements for new technologies, says Kristina Fløche Juelsgaard, director at Ballard Power Systems Europe A/S.

Another pillar of the project is the use of energy storage systems for maritime use. This is where Sterling PlanB contributes to the project.

- Sterling PlanB has long prided itself on engineering the safest and most robust energy storage systems available on the market, in support of emissions reductions. Our battery technology is engineered to be the most robust lithium battery possible, for a cost-effective, sustainable solution. We're very proud to be a part of this project and partnering with like-minded experts in the industry to support shipping's decarbonization challenges, says Brent Perry, CEO of Sterling PlanB.

Floating test platforms

The next generation of MHO-Co's vessels are custom designed to service the wind turbine and offshore industries, and the shipping company specializes in transporting technicians to and from large wind farms. Currently, the shipping company is building the world's first Crew Transfer Vessels with hybrid propulsion, and these two vessels will be the focal point of the project.

- Our two new vessels are built as floating test platforms. They are designed to be adapted to the environmentally-friendly energy systems of the future – simply by replacing engine and propulsion

packages. And since the vessels are catamarans, we have four platforms providing even better conditions for testing and comparing different sustainable solutions, Mik Henriksen (MHO-Co) explains.

The two new vessels are being built in China and are scheduled to be put into operation in Europe before the summer holidays 2021.

FACTS ABOUT MHO-Co

MHO-Co is a Danish shipping company specializing in the service and transport of crew in the offshore wind industry. The shipping company was founded in Esbjerg in 2015 by Mik Henriksen and commands a number of vessels including the twin vessels MHO Gurli and MHO Esbjerg, which – each measuring 39 meters – are the world's largest Crew Transfer Vessels. The green ambitions are great, and the goal of MHO-Co from day one has been to service the offshore industry with reliable vessels with high performance and safety, where environmental and fuel-economy considerations go hand in hand. Visit www.mho-co.dk to learn more.

Contact information

For further information, please contact CEO **Mik Henriksen**, MHO-Co, on +45 53 62 46 45 or via mik@mho-co.dk