

Edinburgh wave energy firm teams up with subsea storage company in decarbonising move

Aiming to show that green technologies can be combined, providing reliable low carbon power, Edinburgh based Mocean, a wave energy company, is combining their subsea equipment with an underwater battery developed in Aberdeen by Verlume in a demonstrator project off Orkney.

This is promoted as a cost-effective alternative to umbilical cables which are carbon intensive and take a long time to install.

The £2 million project is called Renewables for Subsea Power (RSP) and will be involved in a four month long project providing low carbon power and communication to infrastructure. This will include Baker Hughes subsea controls equipment and a resident underwater autonomous vehicle provided by Transmakt Subsea.

The European Marine Energy Centre (EMEC) has provided

instrumentation to measure speed and direction of currents and Wave Energy Scotland has supported the project with £160,000 funding the integration of the umbilical into the wave energy converter.

Mocean Energy Managing Director Cameron McNatt said: "This is a natural next step for our technology.

"The new test site east off Deerness offers a much more vigorous wave climate and the opportunity to demonstrate the integration of a number of technologies in real sea conditions."

Andy Martin, chief commercial officer at Verlume, a leader in intelligent energy management and storage technologies for the energy industry, said: "This offshore test programme is the pinnacle of the success to date in this project, we are very much looking forward to the Halo being deployed. The testing will provide a great opportunity to gather high quality performance and operational data which will support the further electrification of the subsea sector."



Andy Martin CC0 Verlume

In 2021, Mocean Energy's Blue X prototype underwent a programme of rigorous at-sea testing at the European Marine Energy Centre's Scapa Flow test site in Orkney where they generated first power and gathered significant data on machine performance and operation. The Blue X programme was made possible through £3.3 million from Wave Energy Scotland which supported the development, construction and testing of the Blue X prototype at sea.



Mocean Energy's Managing Director Cameron McNatt with Mocean Energy's Blue X wave energy converter at Forth Ports' Rosyth Docks.