

Wave energy company celebrates milestone

✘ Leith firm Pelamis is celebrating a significant milestone as the ScottishPower Renewables (SPR) owned Pelamis P2 wave energy converter has this week completed its first year of a robust testing programme at the European Marine Energy Centre (EMEC) in Orkney.

The combined P2 test programme has now accumulated 7500 grid connected operating hours, and exported 160MWh of electricity to the national grid. The company says these are encouraging figures for this stage of the testing programme, and expects that generated powers will continue to rise as the programme develops.

Following its first installation in May 2012 alongside the E.ON owned Pelamis P2 machine at the Billia Croo test site, the machine has been undergoing a progressive work-up testing programme, being exposed to increasingly large wave conditions for longer deployment periods. An accelerated form of the work-up programme was made possible thanks to the wealth of learning accumulated since the beginning of the E.ON Pelamis P2 demonstration programme in October 2010, and the resulting confidence of both the customer and Pelamis operation teams in this testing approach.

As a result of this accelerated testing strategy, the SPR owned Pelamis P2 wave energy converter was able to generate twice the amount of electricity in half the elapsed calendar time, during its initial test parameters of small to medium seas. In deployments since then, the SPR Pelamis machine has experienced larger seas with significant wave heights of up to 5mHs, including individual waves of over 9m. Electricity generation has increased as anticipated in these larger, more energetic seas.

The proven average output capability of the device, over the annual spectrum of wave conditions at the EMEC site, is now close to 100kW. Demonstrations of further improvements are anticipated through control optimisation which could double that number as targeted for the next stage of the project.

The video shows the E.ON owned Pelamis machine in action.