

CETO Wave Energy Generator Tested at COAST Facility

Carnegie Wave Energy Limited (Carnegie) has undertaken a comprehensive wave tank testing programme of its CETO 6 technology design at the University of Plymouth's Coastal, Ocean and Sediment Test (COAST) facility in the UK.

CWE UK chief executive officer Tim Sawyer and Carnegie's senior hydrodynamics engineer Dr Ashkan Rafiee were both on hand as comprehensive testing of the CETO 6 performance across a range of sea states took place. The wave tank testing will build on Carnegie's internal modelling as well as previous wave tank testing and the successful in-ocean operation of the CETO 5 system in the now completed Perth Wave Energy Project.

Over 340 separate tests will be carried out throughout the programme, according to Mr Sawyer. These tests are aimed at evaluating and informing the design of the CETO 6 technology.

Range of Sea States

Specific outcomes include comprehensive measurement of CETO 6 performance across a range of operational and extreme sea states; optimisation of Carnegie's preferred Power Take Off (PTO) system operation and control; validation of Carnegie's in-house modelling suite and a detailed and validated load case for CETO system design.

Wave tank testing allows Carnegie to quickly and cost-effectively understand how the CETO device will interact with waves and other physical processes. The commencement of this testing coincided with discussions with leading academic and industry experts aimed at exploring opportunities to support CETO wave development in the UK.

Wave Energy Seminar

Carnegie also used this opportunity to hold a seminar hosted by the University of Plymouth and attended by members of the Partnership for Research in Marine Renewable Energy (PRIMaRE).

Attendees included representatives from the Universities of Plymouth, Exeter, Southampton, Bristol and Bath, The Marine Biological Association of the UK, Plymouth Marine Laboratory, South West Marine Energy Park and Wave Hub. The seminar offered an opportunity to bring together industry and academia, share Carnegie's development approach, and discuss opportunities for student development and collaboration.

Presenters at the seminar were professor Deborah Greaves, professor in Ocean Engineering and Director of the Coast Laboratory, School of Marine Science and Engineering (Faculty of Science and Engineering), Tim Sawyer, CWE UK's CEO, Stuart Herbert, commercial director, Wave Hub, Dr Daniel Conley, associate professor (reader) in Coastal Dynamics Modelling (Wave Hub), School of Marine Science and Engineering (Faculty of Science and Engineering).