Embargoed: 00:01 Tuesday 21 February 2012

ETI to explore testing offshore floating wind platform at Wave Hub

The Energy Technologies Institute (ETI) is investigating whether it could use Wave Hub, the world's largest wave energy test site, to accommodate floating offshore wind turbines as part of a demonstration project valued at over £25 million.

Plans for the offshore wind floating system demonstration project, which would open up new areas off the coast of the UK and help bring generation costs down, were announced by the ETI in October 2011.

The project will see the design, construction and installation of a floating system demonstrator by 2016 at a site with high wind speeds up to about 10 metres per second in water between 60 and 100 metres deep.

It will be operated for at least two years to show it can generate high levels of electricity, be maintained without using specially designed vessels and to verify the predicted technical and economic performance.

Wave Hub consists of a gird-connected 'socket' on the seabed approximately 10 nautical miles off the north coast of Cornwall in South West England.

Designed to test arrays of wave energy devices in eight square kilometres of sea, it has been commissioned by the ETI to complete a study to investigate whether the waters around Wave Hub would be suitable for testing floating wind turbines as part of the project.

It is estimated that the UK has over a third of Europe's potential offshore wind resource – enough to power the country nearly three times over. Tapping into this economically, particularly in deeper waters off the west coast of the UK, will require significant technology developments and floating wind could be a solution.

Wave Hub has four berths in total. Two of these have already been reserved by wave device developers Ocean Energy Limited of Ireland and Ocean Power Technologies, based in the US and UK. Two berths remain, each measuring one kilometre by two kilometres.

Dr David Clarke, ETI Chief Executive said: “The ETI is seeking potential sites to host the demonstration project and we will be working with Wave Hub to see if it could be suitable for hosting the offshore wind floating platform. This is a challenging project and will need local marine engineering skills and support facilities as well as the right water and wind conditions.

“The concept for the floating platforms is to be able to access near-to-shore, high wind speed sites off the west coast of the UK which would bring down the cost of generating electricity so the Wave Hub site offers some interesting possibilities.”

Claire Gibson, Wave Hub General Manager, said: “We have commissioned a study to investigate whether the Wave Hub site is suitable for testing floating wind turbines in response to the approach made by ETI. This study will establish whether the site has the necessary characteristics and if a single wind turbine demonstrator project is deliverable at Wave Hub.

“We have a particular advantage in that the offshore grid infrastructure and onshore substation are already in place, and we also have a team that has experience of managing the design, consent and installation of offshore energy projects. We clearly need to consult with a wide range of groups and other sea users about this opportunity and this forms an important part of the study.”

The feasibility study is being funded by the ETI and carried out by Halcrow. It is expected to be completed before the summer.

The ETI’s Request for Proposals for companies interested in taking part in the demonstration project closed on 27 January with a high level of interest from organisations in the UK, Europe and beyond.

The selection process has now started and it is expected that the contract will be awarded early next year.

A study commissioned by the South West RDA (Regional Development Agency) and published in 2010 calculated there are sufficient marine energy resources for commercial use within 50 km of the South West coast to deliver 9.2 Giga Watts (GW) of electricity, equivalent to the annual needs of 20% of UK households, or 5% of the UK’s electricity needs by 2030.

Of this, 2.5GW could come from deep-water floating windfarms, 1.2GW from wave energy, 1.1GW from tidal stream, and 4.4GW from offshore wind, much of it from two existing offshore windfarms planned in the Bristol Channel and off the Dorset coast.

The Government recently announcement that South West England is the UK’s first Marine Energy Park. This embraces the opportunity of generating offshore wind in addition to wave and tidal energy.

Anyone interested in receiving details of future RfPs issued by the ETI can sign up to the RSS feed on the ETI website at http://www.energytechnologies.co.uk/ETINewsRSS.rss, subscribe to receive the ETI’s newsletters by emailing info@eti.co.uk or follow the ETI on Twitter at www.twitter.com/the_eti

Notes to Editors

1. The Energy Technologies Institute is a UK based company formed from global industries and the UK Government. The ETI brings together projects and partnerships that create affordable, reliable, clean energy for heat, power, transport and associated infrastructure. For more information, please go to www.energytechnologies.co.uk

2. The ETI's six private sector members are BP, Caterpillar, EDF Energy, E.ON, Rolls-Royce and Shell. The ETI's public funds are received from the Department for Business Innovation and Skills through the Technology Strategy Board and the Engineering and Physical Sciences Research Council (EPSRC). The ETI will accelerate the deployment of affordable, secure low-carbon energy systems from 2020 to 2050 by demonstrating technologies, developing knowledge, skills and supply-chains and informing the development of regulation, standards and policy.

3. Wave Hub consists of a giant 'socket' on the seabed connected to the national grid on shore by an underwater cable, into which wave energy devices can be 'plugged' and tested on a scale not seen anywhere before. The project has four berths available and a capacity of 20MW, equivalent to the electricity needs of more than 7,000 homes.
4. Wave Hub is publicly-owned by the UK Department for Business Innovation and Skills (BIS) which has set up a stand-alone operating company, Wave Hub Limited, based in Hayle, Cornwall, to manage the day-to-day operation of the testing facility on its behalf.
5. Wave Hub is a £30 million construction project funded with £16.5 million from the European Regional Development Fund Convergence Programme and £13.5 million from the UK Government.
6. Wave Hub is a partner in the South West Marine Energy Park. For a copy of the South West Marine Energy Park prospectus, please click here.
7. Follow Wave Hub on Twitter @wavehub, or visit www.wavehub.co.uk
8. For more information about the ETI and its Offshore Wind Floating System Demonstrator visit http://www.eti.co.uk/request_for_proposals/view/62

For further information please contact:

ETI PR Manager: Nigel Richardson on 01509 202084 / 07827 946064 or email nigel.richardson@eti.co.uk

Wave Hub contact: Jason Clark, DCA Public Relations on 01208 77900 / 07980 834368 or email jason.clark@dca-pr.co.uk