

July 27 2010

Wave Hub sets sail for Cornish test site

Wave Hub, the South West RDA's (Regional Development Agency) pioneering marine energy project, set sail for Cornwall overnight [17:00 Monday, July 26] in preparation for installation next week on the seabed 16 kilometres offshore.

Wave Hub is creating the world's largest test site for wave energy technology by building a grid-connected socket on the seabed off the coast of Cornwall, to which wave power devices can be connected and their performance evaluated.

The £42 million project has been developed by the South West RDA and is a cornerstone of its strategy to develop a world class marine energy industry in South West England.

For the past week the 12-tonne hub and its 25 kilometre, 1,300 tonne subsea cable have been gradually loaded on to the cable laying ship Nordica at Hartlepool docks in North East England, where the hub and cable were manufactured.

The Nordica left Hartlepool at 17:00 on Monday July 26 and after a brief stop for bunkering, is due make her way to St Ives Bay on the Cornish coast where she is expected to arrive on Thursday afternoon.

The RDA's Wave Hub general manager, Guy Lavender, said: "Nordica's arrival marks the start of the Wave Hub deployment operation and they will begin work straight away. The entire cable route will be surveyed before the cable is pulled ashore at Hayle early next week and buried in the sand for two kilometres out to sea in an operation that will take around two days.

"At the same time the Nordica will head out to sea laying the cable as it goes. It should reach the Wave Hub site after about four or five days and will lower the hub on to the seabed in about 50 metres of water using its on-board crane."

Once Wave Hub has been positioned on the seabed the Nordica will head to the port of Falmouth on the south coast of Cornwall to pick up a 45-tonne underwater tractor that will bury the subsea cable for a further five kilometres offshore.

In the autumn Wave Hub will undergo a series of tests in preparation for welcoming its first wave energy devices next year.

Wave Hub is being funded with £12.5 million from the South West RDA, £20 million from the European Regional Development Fund Convergence Programme and £9.5 million from the UK government.

An independent economic impact assessment has calculated that Wave Hub could create 1,800 jobs and inject £560 million in the UK economy over 25 years. Almost 1,000 of these jobs and £332 million could be generated in South West England.

Ends

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Notes to Editors

1. **Images:** of Wave Hub and the cable being loaded at Hartlepool dock can be downloaded here:
www.2daymedia.com/fotoweb/linkgen.asp?linkid=WaveHubInstallation1_2010720163142831
www.2daymedia.com/fotoweb/linkgen.asp?linkid=WaveHubInstallation2_2010720163323331
2. **Film:** of Wave Hub and the subsea cable under construction is available here:
www.youtube.com/southwestrda
3. You can follow Wave Hub's progress on Twitter (@wavehub).
4. The **South West RDA** works for and promotes a modern, stronger and more resilient economy across South West England. Our work involves creating better jobs, successful businesses, more prosperous cities, towns and villages within an economy that uses less carbon and will still be thriving in 20, 50 and 100 years time. Find out more at www.southwestrda.org.uk
5. **Wave Hub** is a major marine renewables infrastructure project that will create an electrical 'socket' on the seabed in some 50 metres of water around 16kms (10 miles) off the coast of Cornwall in South West England and connected to the National Grid via a subsea cable. Groups of wave energy devices will be connected to Wave Hub and float on or just below the surface of the sea to assess how well they work and how much power they generate before being commercially produced and deployed. There are four berths available at Wave Hub, each covering two square kilometres. Wave Hub will have an initial maximum capacity of 20MW (enough electricity to power approximately 7,000 homes) but has been designed with the potential to scale up to 50MW in the future. The first wave energy devices are expected to be deployed in 2011.
6. Legal agreements have been signed with leading renewable energy company **Ocean Power Technologies Limited** to take the first berth at Wave Hub using its PowerBuoy wave energy converter. Images of PowerBuoy can be downloaded at www.flickr.com/photos/southwestengland. Discussions are ongoing with other device developers.

7. **JDR Cable Systems Ltd** has manufactured the armoured 25 km (16 mile) 33,000 volt cable and hub assembly for Wave Hub at its factory in Hartlepool in a contract worth £7.6 million. The cable has been made in one continuous length and is made up of six copper cores, 48 fibre optic cables, two layers of steel wire armouring and an outer polymer sheath. It is 16 centimetres in diameter and weighs 1,300 tonnes. The hub weighs around 12 tonnes and will sit on the seabed. It will split the main cable linking it to the National Grid on shore into four 300m cable 'tails' to which groups of wave energy devices can be attached and monitored for how they perform. **CTC Marine Projects** is carrying out the installation of the hub and subsea cable on the seabed in a contract worth around £7 million.
8. **Powermann Ltd** of Poole in Dorset has been appointed to handle the £1 million onshore electrical works that will connect Wave Hub to the UK's National Grid network, and a new electricity sub-station at Hayle has been built by **Dawnus Construction**.
9. In Cornwall and the Isles of Scilly the **Convergence Programmes** are made up of European Regional Development Fund (£347 million) and European Social Fund (£153 million). Convergence Programmes will run until 2013 and follow the successful Objective One Programme and prior to that Objective 5b. For further information see: www.convergencecornwall.com. Convergence helpline telephone: 0800 0280120.