



Hydro & Marine News

Trident Energy prepares to deploy wave power machine in Suffolk

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Wave developer Trident Energy is set to deploy its wave energy device off the Suffolk coast in June, it was revealed this week.

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The firm unveiled its 20kW demonstration device at a Lowestoft dockyard on Tuesday.

Speaking to journalists at the Small and Co shipyard, where the full-scale device has been constructed, Trident's founder and technological director Hugh-Peter Kelly said that Trident was all about "cracking wave power".

"We want to prove to the world that this works, and that Trident can produce grid-ready AC electricity," he added.

Trident is planning to deploy the 20kW device five miles off the coast of Southwold in Suffolk, where it will generate electricity for at least six months.

The company, which is based in Lowestoft and Southend-on-Sea, is hoping to deploy the device as early as June, but admitted that it depended on the availability of a vessel for the installation.

The device is currently undergoing final testing by Mr Kelly's team, which includes technicians from Cambridge University.



Trident unveiled its wave power converter at a Lowestoft shipyard on Tuesday

Trident wave

With only one moving part, the wave power converter uses a linear motor to generate electricity from the waves.

This linear motor concept was invented by Mr Kelly and is now found in most car engines.

Pistons attached to a 150 tonne rig capture the swell of the waves, powering a generator on top of the structure and producing 230-volt AC electricity.

While the rig is anchored to the seabed, engineered floats hold the top of the structure 3 metres above the water and rotate it to capture the travelling movements of the waves.

At present, the rig features three generators, but Mr Kelly said that the number could be increased without significantly increasing the size of the rig.

Entrepreneur Steve Packard, the firm's chief executive, said: "What we have here is an endless energy resource. And this machine can be tailored to the waves that exist within each candidate site."

The device will not be grid connected at Southwold, and will burn off all the electricity generated, but the firm stressed that all the generating data from the project is set to be verified by the New and Renewable Energy Centre (NaREC).

Consortium

New Energy Focus has learnt that Trident wants to follow up the Suffolk demonstration with an installation rated between one and five megawatts.

Mr Packard said: "What we'd like to do is form a consortium with a utility, and apply for funding from the Marine Deployment Fund. There's a number of places we'd be interested in deploying, including Wave Hub."

Trident's financial director Andrew Hine said that the firm would have the funds to complete the Suffolk demonstration, but would not disclose how much funding the firm had had.

"We don't want to disclose that yet, because we don't want our success to be measured by how much we've spent," he said.

But he confirmed that the company was going to need more funding if it wanted to expand the project beyond the Southwold demonstration, saying: "What we've got to do now is convince investors we can make the money."

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Steve Packard,
Trident Energy

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