

Npower juice fund sponsored wave power machine offers green energy answer



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Npower juice fund sponsored pioneering wave power device that could provide a major breakthrough in the drive to hit sustainable energy targets is a step closer to commercial use after tests proved the system is highly effective.

Green Ocean Energy Ltd, the Aberdeen-based renewable energy company, has developed a wave power machine which uniquely attaches to an offshore wind turbine thereby giving combined wind and wave power from one installation.

The company was able to develop its ground breaking Wave Treader technology after securing £60,000 of funding from **npower's Juice fund** - a unique scheme that supports the development of wave and tidal technology.

The financial backing enabled the company to put the device through a feasibility study into its commercial [electricity](#) generating application. The Wave Treader has since achieved proof of concept and a full size prototype could be ready for testing in 2010.

Managing director of Green Ocean Energy, George Smith, said: *"We have drawn on our extensive skills and experience in the energy sector to develop this technology. The support we have received from npower through the juice fund has enabled us to take a huge step forward in preparing the device for widespread use in the offshore environment. These are exciting times for the company and*

we look forward to eventually seeing the device incorporated into offshore wind farms.

"The Wave Treader has the potential to significantly increase sustainable energy generation both in the UK and around the globe. If we're going to reach the Government's target of generating 20% of the UK's energy from renewable sources by 2020 it's essential that a range of sustainable sources are put into widespread use."

Green Ocean Energy was established in 2005 with the aim of generating ample, clean and sustainable energy by harnessing marine energy in ways that are harmonious to the environment and economically viable.

Each Wave Treader machine generates approximately 500 KW which is enough electricity to power 125 homes.

Helen Steed of npower's Juice fund commented: *"We are delighted with the results of the Green Ocean Energy Wave Treader. The device is the first of its kind, and shows tremendous potential in utilising existing off-shore infrastructure to generate clean [renewable energy](#). This is exactly the type of project that npower juice fund was developed for.*

"Research and development are the cornerstones of the npower juice fund ethos, and provide additionality to [npower juice](#). For every customer that joins [npower juice](#), npower invests £10 per year per customer into the juice fund. To date npower juice fund has invested £2m into the development of marine renewable industry"

The Wave Treader has been developed using the core concept of a stand alone wave power device called Ocean Treader which is also being developed by the company. Mounting the device on the foundation of an offshore wind turbine makes that technology more commercially viable because of the relatively low technical risk.

Uniquely, Wave Treader can turn to face the direction of the wave train to ensure maximum operational efficiency. It also has active on-board adjustments to allow for the effects of tidal range.

With a design life of 25 years the machines have been designed to ensure they are highly reliable and use standard marine equipment.

The company is now looking to attract further investment to enable continual development of the company's products.

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Note to Editors

About Green Ocean Energy

Green Ocean Energy was established in 2005 with the aim of generating ample, clean and sustainable energy by harnessing marine energy in ways that are harmonious to the environment and economically viable. The company based in Carden Place, Aberdeen, is currently developing two wave power machines called Wave Treader and Ocean Treader for commercial use. Ocean Treader is a floating device designed for stand alone use in ocean wave systems.

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