Wind Power Limited

The Aerogenerator concept developed by Wind Power Limited is an offshore vertical axis turbine which, due to its inherent design, offers the potential for greater wind energy availability and reduced life cycle costs over the conventional horizontal axis turbines which we see today.

Since 2004, Narec has worked with Wind Power Limited to engineer and prove this exciting technology at our independent testing and development centre in the North East of England.

Originally seed funded by founder Theo Bird, Narec was able to secure the backing of North East Finance's Three Pillars Fund –set up to encourage emerging technologies in the region's key industries – and from other regional investment including North Star Equity Investors' Proof of Concept Fund and One North East. A Shell Springboard innovation grant of £40,000 was also won in 2008 and raised the profile of the project significantly.

With this funding in place a 6 KW prototype of the device was assembled on site at Narec and spent several months undergoing rigorous testing by our mechanical and electrical engineers. This involved assessing its mechanical operation in live wind conditions, while monitoring the electricity generation output and system behaviour in a controlled environment connected to our own private electrical grid at the Charles Parsons Technology Centre. The business mentoring provided by Narec to Wind Power Limited to prepare for the trials and the evidence gathered during the course of the process provided the base for Wind Power Limited to apply for national funding to take the device to the next level on the road to commercialisation.

In 2009 a Consortium including Wind Power Limited, OTM Consulting and Cranfield University was selected as one of a select band of UK innovations to secure investment from the new national flagship energy research body, the Energy Technologies Institute (ETI).

Project NOVA (Novel Offshore Vertical Axis) has received backing from ETI in their first round of £20 million funding awarded to new energy projects which could help to ensure the UK meets Energy & Climate Change targets.

A funding injection from the ETI will enable a detailed feasibility study to be undertaken by the UK based Consortium to support the transfer of the technology to an offshore environment from its testing base at Narec in Blyth, Northumberland. The vision for the project is 1 GW of offshore vertical axis turbines installed by 2020, via a large scale demonstrator installed offshore within six years.

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