Sustainable Marine Energy secures funding to begin array build out at EMEC

Sustainable Marine Energy (SME) has arranged a £4.5m funding package to commence the deployment of an array of its PLAT-O tidal energy systems at the European Marine Energy Centre (EMEC) in Orkney.

SME has conducted extensive testing of its first PLAT-O prototype in the Solent, off the Isle of Wight, during 2014 & 2015. SME have now moved their operational base to Orkney and will be grid connecting their first system at EMEC over the coming months. This deployment will then be followed by a larger, 240kW, platform with SCHOTTEL HYDRO Instream Turbines (SIT 250), the production of which will commence this summer, also in Scotland.

SME’s existing investors have been joined by the German Tidal Turbine Manufacturer SCHOTTEL HYDRO with Scottish Enterprise increasing its investment to provide the funding required to take the development of PLAT-O through the next phase, to prove the commercial viability for community scale arrays.

Long term commitment to Orkney, and Scotland

“We are really excited to be moving forward with our array at EMEC” says Jason Hayman, Managing Director of SME. “this will show that 2nd generation tidal energy technology really is commercially viable. It is fantastic that SCHOTTEL HYDRO is supporting us at this stage, and also that they have the confidence in the capability and potential of Scottish supply chain to deliver on this project. This is a long term commitment for SME and SCHOTTEL HYDRO and we are rapidly expanding our operations in Orkney, whilst benefitting from the experience of local contractors to drive down the costs of marine operations.”

Technologies to benefit the entire marine energy sector

In addition to the development of PLAT-O, SME is also pioneering the development of drilled rock anchors suitable for tidal sites, the installation of which has been proven at EMEC in the last quarter. The SME rock anchor system is the first of its kind in the world to be deployed at an energetic tidal site, and will be of benefit to the entire marine energy sector, and wider industry as a whole.
Complementary technologies providing cost effective solutions

Niels A. Lange, Managing Director of SCHOTTEL HYDRO commented: “We at SCHOTTEL HYDRO are convinced that commercial tidal energy installations will be based upon cost-effective floating platform solutions like PLAT-O, carrying multiple tidal turbines. We are pleased to support SME on their way to demonstrate the benefits of PLAT-O plus our SIT 250 technology. This project with complementary technologies indicates the perspectives of productive interaction within the entire industry.”

Investment pushing forwards tidal energy projects

“EMEC is very much looking forward to seeing SME get into the water at EMEC’s tidal site. It is fantastic to see the support of Scottish Enterprise, showing how investments can be made to bring about renewables projects like this at an important stage in their development” said Neil Kermode, Managing Director of EMEC. “We expect this first phase of grid-connected demonstration in Orkney will generate a great deal more learning to add to previous real-sea experience at the Isle of Wight, and provide a solid base on which to build out with SCHOTTEL HYDRO. The Orkney supply chain is poised and ready to help make that a success.”
Notes to Editors

About SUSTAINABLE MARINE ENERGY

Sustainable Marine Energy (SME) is a marine engineering company delivering commercially viable solutions to the tidal industry. SME’s innovative technologies and processes deliver a step change reduction in cost and enhance through-life performance for customers. SME understands the challenges faced by the sector. Ensuring that low cost installation and maintenance operations can be achieved is a fundamental design driver for all of our systems; solving one of tidal energy’s key challenges and enabling the delivery of commercially viable projects.

SME is developing a turnkey tidal energy system, called PLAT-O. PLAT-O is a moored, buoyant platform that is positioned mid-water column. It provides a comprehensive systems integration solution, exporting grid-compatible power from multiple tidal energy convertors. The 100kW PLAT-O prototype has completed testing off the Isle of Wight. It will be grid-connected at EMEC during 2016. A 240kW commercial demonstrator will follow, with three additional systems to be deployed in the array at EMEC. SME has also developed anchoring and mooring solutions for energetic marine environments.

PLAT-O provides a step-change reduction in the cost of delivering tidal energy; one of the Earth’s most abundant and reliable renewable energy sources. PLAT-O is a buoyant platform that is taut moored to the seabed using a bespoke anchoring solution that has also been developed by SME. It sits under the surface of the water and offers a number of other benefits including enhanced yield and survivability due to its position in the water column, which also ensures that surface vessels can pass safely overhead. Besides a surface marker buoy, the system is not visible on the surface.

PLAT-O was designed from the outset to enable low-cost, low-risk operations. All installation and maintenance operations for PLAT-O can be carried out with small, readily available vessels, avoiding the need to hire large heavy-lift ships. This also reduces the risks associated with weather downtime for project developers.

www.sustainablemarine.com

About SCHOTTEL HYDRO

SCHOTTEL HYDRO offers its services in three segments: hydrokinetic turbines, semi-submerged platforms and components, such as turbine hubs and drives. SCHOTTEL HYDRO also includes the British company TidalStream Ltd. (TSL) and the Canadian company Black Rock Tidal Power (BRTP). SCHOTTEL HYDRO is located in Spay, Germany. A large network of SCHOTTEL sales and service locations ensure customer proximity worldwide.

http://www.schottel.de/de/schottel-hydro/

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