## Hydro

## Commercial Tidal Power Project Secures Seabed



The Crown Estate, manager of the UK seabed, has awarded an †Agreement for Lease' for a commercial demonstration site for electricity production from tidal currents to the Swedish marine energy company Minesto. Minesto will prepare consent application for the site near Holyhead Island in Wales prior to the construction of a 10MW marine energy array in 2016, which will supply electricity to approximately 8,000 households.

The decision forms part of The Crown Estate's UK-wide wave and tidal stream leasing round, which saw rights awarded for for five new tidal stream sites across the UK, each with the potential to deliver a project of between 10 and 30MW capacity. Minesto plans to start the installation of a 10MW marine energy array in 2016. The Welsh waters hold a potential of several 1000s of MW, which makes Wales one of the most suitable places in

the world for low velocity tidal energy.

Wales has 1,200 kilometres of coastline that is very rich in low velocity tidal currents. In addition, Wales has strategically located deep-sea ports and – most importantly – access to the national UK grid. The existing grid capacity reduces the time for commercial roll-out and is likely to make Wales the leading region for marine energy in the UK. A report commissioned by the Welsh government shows that marine energy could boost the Welsh economy by up to GBP840m annually after 1GW has been deployed.

Anders Jansson, CEO of Minesto, is looking forward to the opportunity to commercialise Minesto's tidal power plant <u>Deep Green</u> in the low velocity tidal currents off Wales. For Wales, it can lead to job creation, increased revenues and a more sustainable energy production.

Stakeholder engagement and environmental investigations have been on-going since 2012, and Minesto works closely with universities and research organisations in Wales. The establishment of Minesto's 10MW Deep Green array requires a large variety of competences and creates immediate local jobs in a rapidly expanding sector.

Minesto will now further develop the project, which includes in depth environmental studies, detailed seabed mapping, cable routing and commercial activities. The Holyhead Deep site is located approximately seven kilometres from the shore where the water depth is 80-90 metres. The tidal currents are 1.5-2.5m/s. The area has been carefully selected to maintain separation from shipping lanes and to minimise the impact on other sea users.

Minesto's tidal power plant is based on a new principle for electricity generation from tidal and ocean currents. Deep Green generates electricity from low velocity tidal currents, which greatly enhances the potential for marine energy.

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