

Minesto orders turbine prototype from Schottel Hydro

Minesto has together with German tidal turbine manufacturer Schottel Hydro completed the turbine design of Minesto's tidal power plant Deep Green. The Swedish marine energy company has now placed an order for a prototype of the turbine, with delivery in early 2017.

The order of the so-called Power Take Off system is the first result of the strategic technology partnership between Minesto and Schottel Hydro, which began in December 2015. During 2016 and 2017, Schottel Hydro will deliver a customised turbine solution which will optimally fit the requirements of Deep Green, Minesto's tidal power plant.

"We are very pleased to have completed and verified the turbine design for Deep Green. Compared with the first generation Deep Green, the turbine's performance has been improved by about 10 percent. The partnership with Schottel Hydro works perfectly fine, just as expected. It is important for us that they have taken overall responsibility for developing this important subsystem", said Martin Edlund, CEO of Minesto.

The development of the turbine has, among other things, resulted in a larger rotor diameter. The rotor now has five blades instead of three. The design has been established and verified through model tests by German Schiffbau Versuchsanstalt in Potsdam.

Model scale tests reveal advantages

Martin Baldus, Technical Director at Schottel Hydro, is very satisfied with the latest achievements in the project: "We completed the detailed design of the turbine and power conversion system for Deep Green. The model scale tests prove the turbines performance and cavitation behavior to be advantageous compared to previous designs. The integration of our scope of supply into the Minesto kite system works out very well."

Enters the next design phase

The development of Deep Green now enters the next phase where the design of the full-scale system will be completed. At Schottel Hydro the manufacturing of the prototype and the factory acceptance test will be tackled.

"In parallel with the final design we procure subsystems and components which will be assembled into a first full-scale demonstrator. It will then undergo final functionality testing. After that, we are ready to implement Deep Green in full scale on the offshore facility in Wales during 2017", said Martin Edlund.

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About Minesto

Minesto is a marine energy technology company whose mission is to minimize the global footprint of the energy industry by enabling commercial power production from low velocity tidal and ocean currents.

Minesto's award winning and patented product, Deep Green, is the only proven marine power plant that operates cost efficiently in areas with low velocity currents.

In May 2015, Minesto secured a €13m investment from the European Regional Development Fund through the Welsh European Funding Office, for the commercial rollout of Deep Green.

Minesto was founded in 2007 and has offices in Gothenburg, Sweden, Holyhead, Wales and Portaferry, Northern Ireland. The major shareholders in Minesto are BGA Invest and Midroc New Technology. Read more about Minesto at www.minesto.com

Images of Minesto's management team and Deep Green are available to download from Minesto's website.

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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 fully-owned subsidiaries TidalStream Ltd. (TSL) in United Kingdom 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 local customer service worldwide.

www.schottel.de/schottel-hydro/