

Atlantis Resources Corporation connects 1MW tidal turbine to the national grid

Friday, 02 September 2011

The AR1000 turbine becomes Scotland's first grid-connected 1MW tidal turbine

Orkney, Thursday 11th August: Atlantis Resources Corporation, the international marine energy developer, has connected its 1MW AR1000 tidal turbine to the grid at the European Marine Energy Centre (EMEC) in Orkney, Scotland. The AR1000 becomes Scotland's first grid-connected, commercial-scale tidal turbine, marking a crucial milestone in the development of the marine energy industry.



The AR1000 is currently the world's most powerful single-rotor tidal turbine, rated to dispatch 1MW of predictable power at a water velocity of 2.65m/s. Its 18m rotor diameter also makes it one of the largest turbines ever built, standing 22.5 meters high and weighing 1,500 tonnes. A full commissioning programme is now underway at EMEC and is expected to take three months.

The three-bladed turbine will be tested over the next two years, ahead of commercial system roll-out into the MeyGen project in Scotland's Pentland Firth.

Neil Kermode, Managing Director of the European Marine Energy Centre, says: "It is wonderful to see this commercial-scale tidal turbine connect to the grid from Orkney waters. The marine energy industry in Scotland continues to gather pace and is working towards world-leading targets in terms of deployment and generation of renewable energy. My congratulations go to the entire team at Atlantis."

Atlantis' AR1000 turbine design draws heavily from development and testing of its earlier two-rotor, AK1000 turbine, which commenced in 2009. Whilst waiting for delivery of a set of standard GRP rotor blades, fabricated in the UK earlier this year, the company completed a detailed analysis of Scottish, UK and global component supply chain status for commercial production and roll-out. The decision was taken, in conjunction with customers and project partners, to deploy the nacelle in a single rotor set, AR 1000, configuration.

Tim Cornelius, CEO of Atlantis, says: "I am very proud of the team at Atlantis. They have overcome a number of considerable challenges in this development programme, fine-tuning the nacelle retrieval process at the same time. By connecting a 1MW single rotor device in Scottish waters to the national grid, they have achieved something that has never been done before. Our business enters the next phase of its evolution in great shape and I want to thank the huge ecosystem of technology partners, suppliers, contractors and industry figureheads who have supported us to date."

"Following a blade manufacturing fault in 2010, we switched suppliers and reverted to standard GRP blades. We also took the opportunity to review the entire tidal power component supply chain in conjunction with our customers and opted to focus on a turbine design that employs only proven and readily accessible components and can therefore be manufactured at scale. We will continue to invest in the AK1000 research and development programme as the supply chain matures but our customers need commercial reliability and that's what the AR1000 system can give them today."

Norco GRP Ltd of Poole (blades) joins a UK-dominated supply chain for the AR1000, alongside Soil Marine Dynamics in Newcastle (nacelle), Isleburn Engineering in Invergordon (gravity base structure and system

assembly), Tata Steel in Scunthorpe, Wichita in Bedford (shaft brake), Pilgrim in Oldham (hub assembly), Hallin Marine (offshore services), Leask Marine in Orkney (commercial diving) and IX Survey in Edinburgh (marine survey).

About Atlantis Resources Corporation

Atlantis Resources Corporation is an international marine energy company with offices in London, Singapore and Sydney. Its latest turbine, the 1MW AR1000 is deployed at the EMEC facility in Scotland.

Together with its partners, Atlantis is developing some of the world's first tidal power generation sites, including in the Pentland Firth, Scotland, the gulfs of Khambhat and Kutch in Gujarat, India, and at the Fundy Ocean Research Center for Energy, Nova Scotia.

www.atlantisresourcescorporation.com

About EMEC

The European Marine Energy Centre (established in 2003) is the only centre of its kind to offer developers of both wave and tidal energy converters the opportunity to test in the world class sea conditions around Orkney, Scotland.

The Centre was established with around £30 million of funding from the Scottish Government, Highlands and Islands Enterprise, the Carbon Trust, the UK Government, Scottish Enterprise, the European Union and Orkney Islands Council.

Press

- Atlantis Resources selects Lockheed Martin
- Atlantis Resources Corporation connects 1MW tidal turbine to the national grid
- Atlantis Resources Corporation completes final phase of fundraising
- Top Team Water recommends Project Clearwater for immediate implementation in Holland
- Atlantis Resources Corporation completes R&D fundraising
- Update on Atlantis Resources Corporation's AK1000™ test turbine, March 10th 2011
- PREMIER'S OFFICE--Atlantis Tidal Turbine to be Built in Province
- State of Gujarat to install Asia's first commercial scale tidal current power plant in the Gulf of Kutch in India at Vibrant Gujarat 2011 Summit
- December 3rd 2010: Update on AK1000™ blade replacement
- Giant tidal turbine successfully installed on the seabed at the EMEC facility
- Atlantis Unveils The World's Largest Tidal Turbine – The AK1000™
- Progress For The Pentland Firth
- Atlantis Announces Cooperation With Statkraft To Pioneer The Development Of European Tidal Current Electricity Generation
- Atlantis Announces Statkraft As A Strategic Partner And Lead Investor In A US\$14 Million Fundraising
- Atlantis Signs World's Largest Tidal Energy Generation Agreement with CLP, Increasing its Electricity Generating Project Pipeline to a Record 800MW
- Ocean Trials Prove Solon™ the Most Efficient Tidal Current Turbine Ever Tested
- Atlantis Resources Corporation Appoints Mike Smith as COO
- So Where Did the Atlantis Turbine Families, Solon™ and Nereus™, Get their Names?

status Council.

www.emec.org.uk

About MeyGen Limited

MeyGen is a joint venture between independent power generator International Power plc (45%), investment bank Morgan Stanley (45%), and tidal technology provider Atlantis Resources Corporation (10%), dedicated to developing the Inner Sound tidal site in the Pentland Firth, Scotland.

The project, subject to obtaining all relevant statutory consents, is one of the biggest projects of its kind and is estimated to be able to generate up to 400MW, which is the equivalent electricity used by approximately 400,000 homes, purely from the energy generated from the tides.

www.meygen.com