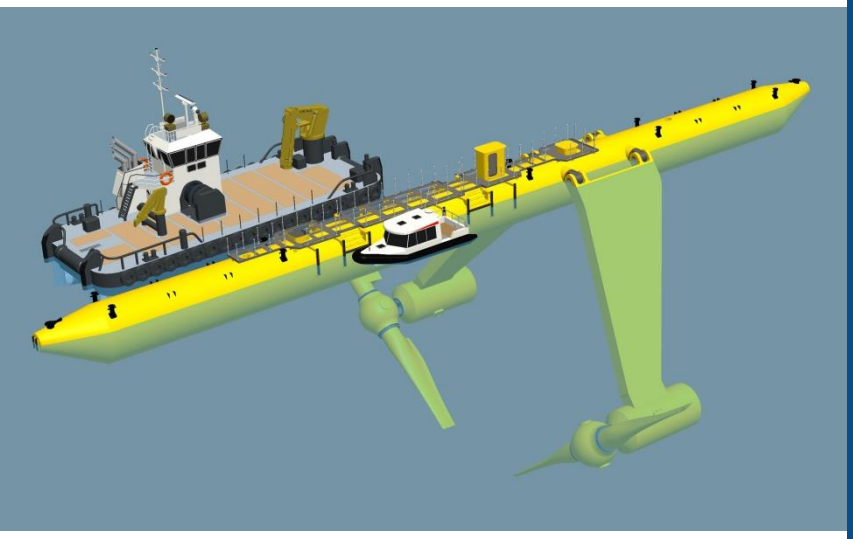
The Flotec Project

Floating Tidal Energy Commercialisation

flotec project

The Floating Tidal Energy Commercialisation (FloTEC) project will demonstrate the potential for floating tidal systems to provide low-cost, high-value energy to the European grid mix through the development and demonstration of Orbital O2 ^{2MW} commercial demonstrator floating tidal turbine.



There will be a significant focus on reducing the levelised cost of energy (LCoE) at every stage of the design, build and demonstration of the Orbital O2, with significant capital and operational cost reductions expected.

Key innovation areas

- Optimised superstructure design
- 50% greater energy capture through increased rotor swept area;
- Low cost fabrication and maintenance strategies;
- Compatibility with local supply chain and infrastructure;
- Mooring load dampers.

The Orbital O2 production model being developed under the FloTEC project is due to be installed at EMEC's Fall of Warness tidal test site in early 2020.

This project will serve as a demonstration platform for commercially viable tidal stream energy .

The project is funded by a €10 million (£7.75m) grant awarded via the European Commission's research and innovation programme, Horizon2020, to advance the commercialisation of Orbital's floating tidal energy technology.

www.flotectidal.eu

"Floating technology like this is likely to be easy and cheap to install, maintain and decommission.

"This will increase the commercial viability of tidal energy, which is crucial as we continue to transition towards a low carbon economy."

Paul Wheelhouse
Scottish Minister for Business, Innovation and Energy

flotec consortium

Led by **Orbital Marine Power**, FloTEC brings together a unique partnership of the most experienced and committed commercial, industrial and research organisations involved in tidal energy today:

- ABB UK
- DP Energy
- EDF
- EireComposites
- EMEC
- Harland and Wolff Heavy Industries
- SKF
- Technology from Ideas
- University College Cork

SR2000: Testing and demonstration

In 2016, Orbital Marine Power installed its flagship 2MW floating tidal turbine, the SR2000, at the European Marine Energy Centre (EMEC) with support from the FORESEA programme.

Since project energisation, whilst also validating the turbine performance, the SR1-2000 test programme has delivered a number of industry generation milestones with capacity factors approaching offshore wind and over 3 GWh generated.

What sets the SR1-2000 test programme apart from other tidal stream projects is that every installation and maintenance operation has been executed with low cost workboat or small crew transfer vessels in a range of sea conditions.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691916.

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