

ORCA

FULL-SCALE TIDAL TURBINE DEMONSTRATOR AT PAIMPOL BRÉHAT

The aim of the ORCA project is to trial, at a pre-selected site at Paimpol Bréhat, a full-scale version of all the principal elements needed to create high-power tidal turbines. The project comprises the study, design, manufacture, installation, testing and maintenance of the equipment, as well as studies of environmental conditions.

Creating such a machine poses considerable technological challenges in terms of design, logistics, manufacture and installation, as well as non-technological obstacles that are only likely to arise with full-scale demonstration projects.

The stakes are extremely high, as success means the development of a wholly innovative form of marine renewable technology, capable of offering tidal farms with an energy output in excess of 100MW.

The ORCA project is recognised jointly by Pôle Mer Bretagne and the EMC2 and Tenerrdis technopoles.

Partners

Companies

Alstom France, Nantes, Grenoble et Paimpol [[Project Developer](#)]
EDF, Paris et Paimpol Bréhat
Nexans, Lyon
Sector, Lyon et Paris
Stat-marine, Nîmes et La Seyne-sur-Mer
STX France Solutions, Nantes et Lorient

Research centers

CETIM, Nantes
ENSAM, Chambéry
Ifremer, Brest
INP, Toulouse
IUEM AMURE, Laboratoire "Aménagement des Usages des Ressources et des Ecosystemes marins et littoraux", Brest
IUEM LEMAR, Laboratoire des sciences de l'Environnement MARin (LEMAR), Brest
IUEM, Laboratoire Domaines Océaniques (LDO), Brest

Funders

ADEME
FEDER

Labelisation

19/01/2011

Overall budget

27 949 K€