

## Exeter scientist in major European marine renewable energy project

Tuesday, 22 July 2008

As Europe's largest ocean energy research programme launches, one of its participants speaks of the huge potential for the South West to become a leader in marine renewable energy.

Professor George Smith of the University of Exeter is a member of EquiMar, a group of 62 scientists from 11 European countries working together to combine knowledge and expertise in marine energy. They aim to drive forward research so that the potential of renewable energy from waves and tides can be realised. EquiMar will be officially launched at the World Renewable Energy Conference (WREC) in Glasgow tomorrow (22 July 2008).

Professor Smith is the Scottish and Southern Energy Associate Professor in renewable energy. He leads the renewable energy group, which is part of the School of Geography, Archaeology and Earth Resources on the University of Exeter's Cornwall Campus and says: "The South West of England has a strong commitment to increasing its renewable energy generation as demonstrated by the proposed Wave Hub project off the North Cornwall Coast. Marine Renewable Energy, both wave and tidal, has the potential to provide a significant contribution to the UK's "green energy" and to the EU target for reduction in carbon emissions. Surrounded by sea, the South West is clearly in a strong position to contribute to this. One of the main barriers to realising the potential is that we still don't have enough information on the amount of energy that can be realistically extracted from the devices available. EquiMar seeks to produce guidelines that will allow fair evaluation of the potential of the many different technologies. EquiMar has the potential to guide the way forward from demonstration projects like the Wave Hub to the next stage of fully commercial projects. We must act now to ensure that marine renewable can achieve the undoubted potential and contribution to the UK energy mix."

According to the Dr David Ingram, the Scottish scientist launching EquiMar, marine energy has 10 years to prove itself as a viable technology or risk being eclipsed by other energy sources. Dr Ingram will tell delegates at the WREC conference in Glasgow that time is running out for marine solutions to the world's energy crisis unless scientists and environmentalists work together.

Dr David Ingram of the University of Edinburgh is coordinator of the European Commission funded project, a €5.5 million programme linking European top research centres and leading device developers to examine the potential of, and identify the barriers to establishing, a marine energy industry. The project has been given three years support by the European Commission to come up with templates to identify viable wave and tidal energy devices and optimal locations so marine energy can be developed commercially and to help to meet the ambitious supply targets set by governments for renewable energy.

According to Dr Ingram: "Every day scientists, inventors and keen amateurs are applying for grants to test their prototypes. Some are promising – many will never work outside the limited test environment of the bath or kitchen sink. Governments need yardsticks by which they can measure the likely success of marine energy systems before backing them. At present we know more about the surface of the moon than parts of the sea bed – both environments demand scientific precision and the toughest possible equipment. Improved national and European funding will help resolve these problems and support the pioneering developers, to progress from testing devices to placing them in the open ocean environment. Good policies are as important as good science at this stage of Ocean Energy development."

The EquiMar ("Equitable Testing and Evaluation of Marine Energy Devices in terms of Performance, Cost and Environmental Impact") project is one of two projects funded in the first round of Framework Programme 7, by the European Commission. EquiMar is a €5.5M project, involving 23 partners from 11 different countries, coordinated by the University of Edinburgh including major developers, universities, test sites, research laboratories, a certification agency, a utility and a journalist, bringing together international expertise across a wide range of disciplines. The project will run for three years from mid April 2008. EquiMar's primary aim is to deliver guidelines so funding agencies, policy makers and investors can fairly judge different technologies and sites.

Source: [atom.ex.ac.uk](http://atom.ex.ac.uk)