CORES– Components for Ocean Renewable Energy Systems

Project Details

Funding Programme:	7th Framework Programme (FP7)
Sub-Programme:	Cooperation, Theme 5: Energy
Funding Scheme:	Small to medium scale collaborative project
Project Duration:	36 months (2008-2011)
Total Project Value:	€4.5m
EU Grant-Aid:	€3.4m
Funding to Ireland:	€1,251,966
Website:	http://www.fp7-cores.eu/

Project Description

CORES is an FP7 European collaborative research project focusing on new components and concepts for ocean energy convertors.

First generation wave energy devices have been deployed at the shoreline and normally consist of Oscillating Water Column Systems. In order for these systems to progress towards full commercial realisation they must develop into units suited to mass production. This project follows successful FP6 funding in which several fixed Oscillating Water Column Wave Energy Convertors (OWC WECs) were developed to demonstration level. These systems are now evolving from fixed to floating devices in deeper water, further offshore.

The CORES project will concentrate on the development of new concepts and components for power-take-off, control, moorings, risers, data acquisition and instrumentation based on floating OWC systems. The components and concepts developed will have relevance to other floating device types. The impacts of the project will be focused on reducing technical and non-technical risk in the marine environment as well as reducing the cost per kWh of generated energy.

The new components and concepts will be tested on a floating OWC test platform at sea and these real, validated and verified results will be integrated into a holistic system model. This model will provide a Toolbox for wave to wire simulations of complete WEC systems. The Marine Institute Galway Bay Test site is the location for the field test of the project.

Project Partners	
Project Coordinator	University College Cork (Ireland)
Ireland	Marine Computation Services Ltd
	Ocean Energy Ltd
	University of Limerick
Portugal	Instituto Superior Técnico
	KYMANER- Technologias Energéticas, Lda
	Wave Energy Center-Centro de Energia das Ondas
UK	Queens University Belfast
	University of Exeter
Denmark	Aalborg Universitet
Germany	Institut für Solare Energieversorgungstechnik e.V.
Spain	Fundacion Robotiker
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