

Securing Ireland's energy future?

Developing Europe's Ocean Energy Hub



Europe's
Ocean Energy
Hub



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Tuesday 12th April 2011
Thomond Park, Limerick

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Foras na Mara





Developing Europe's Ocean Energy Hub

The west coast of Ireland is acknowledged as being home to some of the world's best wind and wave resources, which have the potential to play a significant and important role in meeting Ireland's impending renewable energy targets. The last Energy Minister, Eamon Ryan, set a target of 500MW ocean energy to be installed by 2020 and it is clear that there is a valuable opportunity for marine renewables to contribute to Ireland's changing energy mix after 2020. At the European level, the target for installed ocean energy capacity by 2020 is 3.6GW, with a potential of 188GW by 2050. Ireland clearly has an important role to play in meeting this target, and in becoming an energy exporter, and now is the time to develop the facilities and infrastructure in order to facilitate this development.

Key reasons why the Shannon Estuary region can be Europe's ocean energy hub and can play host to a cluster of activity centred on the development and maintenance of ocean energy devices:

- Home to the best wind and wave resources in Europe;
- Proximity to Shannon Foynes uncongested deep water port facilities;
- Excellent connectivity - close to Shannon International Airport;
- Limerick is a regional gateway city with advanced third level education and research institutions;
- Access to high quality electricity grid (400kV transmission line) and gas supplies;
- Close to designated industrial sites.

There are significant economic benefits associated with the development of the ocean energy sector in Ireland, as a recent report commissioned by the Sustainable Energy Authority of Ireland and Invest Northern Ireland has identified. The report, published last year, concludes that "A fully developed island of Ireland ocean energy sector providing a home market and feeding a global market for Renewable Energy could produce a total Net Present Value (NPV) of around €9 billion and many thousands of jobs".

There are, however, significant challenges around exploiting this potential and action is needed across a number of areas to make the sector more attractive to investors and facilitate development. It is estimated that investment of €2 billion is required over the next ten years to support deployment; planning and regulatory barriers remain and some form of incentive is required to bridge the gap between wholesale electricity prices and the cost of ocean energy technology.

This conference will explore these issues by way of an expert panel of local and visiting speakers. They will examine the potential for the development of ocean energy in the Irish context and will look at the suitability of the Shannon Estuary / west coast region as an ocean energy hub. Also discussed will be the extent to which ocean energy can be the solution, or at least part of it, to Ireland's security of supply concerns.

“A fully developed island of Ireland ocean energy sector providing a home market and feeding a global market for Renewable Energy could produce a total Net Present Value (NPV) of around €9 billion and many thousands of jobs”

Economic Study for Ocean Energy Development in Ireland



Conference programme

09.00

Examining the role of ocean energy in Ireland's energy future

Welcome and introduction: **Kay McGuinness**, Chairperson, Shannon Foynes Port Company

Chairperson: **David Taylor**, Chairman (Ireland), Energy Institute

Ocean energy in the context of Ireland's future energy security

Minister for Communications, Energy and Natural Resources (to be confirmed)

Framing the energy debate: The port perspective

Martin Morrissey, Commercial Manager, Shannon Foynes Port Company

The European roadmap for ocean energy 2010-2050

Dr Sian George, President, European Ocean Energy Association

Delivering Ireland's ocean energy targets

Eoin Sweeney, Head of the Ocean Energy Development Unit, Sustainable Energy Authority of Ireland

Questions & answers / Panel discussion

10.30

Morning coffee / networking break

11.00

Supporting the practical development of the ocean energy sector

Examining the engineering & infrastructure required to support the development of the marine energy sector

Jim Gannon, Associate Director, RPS Group

Overcoming the challenges of Ireland's changing energy mix: The grid perspective

Andrew Cooke, Director, Grid Development & Commercial, EirGrid

Investing in ocean energy: A developer's perspective

Andrew Parish, Chief Executive Officer, Wavebob

Supporting the development of Ireland's ocean energy sector

Colm de Búrca, Manager, Ocean Energy, ESB International

Questions & answers / Panel discussion

12.45

Conference lunch / networking break

14.00

Looking to the future of ocean energy development

Capturing the benefits from ocean energy as part of Ireland's Smart Economy

Tom Kelly, Divisional Manager, Cleantech, Enterprise Ireland

SmartBay: Ireland's national research facility for ICT and marine technologies

Dr Barbara Fogarty, National Co-ordinator, Advanced Marine Technology, Marine Institute

Research showcase: Leading the way in marine energy research

Val Cummins, Director, Maritime & Energy Research Campus & Commercial Cluster (MERC)

Daniel Toal, Director, Mobile & Marine Robotics Research Centre, University of Limerick

Colin Brown, Director, Ryan Institute, Marine & Energy Research, NUI Galway

Panel discussion: Can ocean energy help secure Ireland's energy future?

Chaired by: **Aine Lawlor**, Broadcaster and Presenter, Morning Ireland, RTE

Pat Naughton, Manager, Strategy & Portfolio Development, ESB Energy International

Dr Vincent Cunnane, Chief Executive, Shannon Development

Kieran O'Brien, Chairman, Standing Committee on Energy, The Irish Academy of Engineering

Cathal Gallagher, Engineering Manager, New Energy Department, Bord Gáis

John Power, Director General, Engineers Ireland

16.30

Chairman's summary and conference close

Speaker panel



Colin Brown is Director of the Ryan Institute at NUI Galway. The Ryan Institute delivers a high-quality capability in priority areas of environmental, marine and energy research, develops collaborative research within Ireland and overseas, fosters interaction with relevant policy making and regulatory authorities, encourages research interactions with industry and educates graduate students with skills for the environmental, marine and energy sectors. Colin has 30 years of experience in geophysics, particularly marine geophysics.



Andrew Cooke is Director for Grid Development and Commercial at EirGrid and is responsible for the planning, development and maintenance of the transmission grid. He also has responsibility for the design and implementation of transmission access and tariff arrangements, and for EirGrid's customer and regulatory relations. Andrew is an electrical engineer with over twenty-five years experience in the areas of transmission system operations and planning, and market design and regulation.



Valerie Cummins is Director of the Maritime and Energy Research campus and Commercial Cluster (MERC). This involves working on behalf of University College Cork, the Cork Institute of Technology and the Irish Naval Service to develop a cluster of world standing that secures Ireland's position as an early leader in ocean energy. In 2010 she received the UCC President's Award for leadership for her role in the development of marine science in UCC.



Dr Vincent Cunnane is Chief Executive of Shannon Development, a regional development company dedicated to promoting and developing the Shannon region, from the provision of world-class enterprise space to the strategic tourism marketing of the area. The company develops and delivers key strategic projects throughout the region and generates resources to fund leading-edge projects and infrastructure for the knowledge economy.



Colm de Búrca was appointed Manager Ocean Energy at ESB International in 2008 and is responsible for implementing ESB's strategy in the emerging wave and tidal energy sector. He is responsible for the delivery of ESB Group Corporate target to develop 150MW of ocean energy in Ireland by 2020. Colm is a council member of the Marine Renewables Industry Association and a member of the Irish Government Ocean Energy Advisory Group.



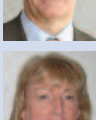
Barbara Fogarty coordinates the National Advanced Marine Technology Programme on behalf of the Irish Marine Institute. The Programme seeks to establish a critical mass of industrial and academic researchers in the areas of ocean monitoring, communication and information systems. Key initiatives include SmartBay a National Research and Test Facility for Ocean ICT, designed to support the development of next generation monitoring and data solutions for a range of global markets including offshore energy, security and shipping. Barbara has a PhD in Environmental Analytical Chemistry and 10 years experience in the development of microsensor systems.



Jim Gannon is an Associate with RPS Group leading the renewable energy business in the firm's Dublin office. His brief spans renewable energy feasibility, project development, and due diligence for clients across Ireland and the UK. He Chairs the Energy and Environment Division of Engineers Ireland and serves as an External Examiner to the MSc in Renewable Energy Systems at DKIT.



Tom Kelly is Divisional Manager for Cleantech, Electronics and Lifesciences with responsibility for developing and implementing Enterprise Ireland's strategy for these sectors. He also has responsibility for leading Enterprise Ireland's Lean Business and Environment and Green Technologies programmes. Tom has held a number of senior positions within Enterprise Ireland, including Head of Enterprise Ireland's Technology Development Division, where he had responsibility for a wide range of technical support, consultancy and R&D services to industry.



Kay McGuinness was appointed as Chairperson of the Shannon Foynes Port Company in September 2008. Kay was born and raised in Limerick City. She recently retired as a Senior Partner in Southern Advertising Agency, and had been involved in the development and success of the Agency in Limerick and Cork. She Chaired the Board of the Limerick Co-Ordination Office for 8 years and has been centrally involved in a number of high profile initiatives to develop the Limerick brand and increase civic pride. Kay is also a past President of the Limerick Chamber of Commerce, was Chairperson of the Limerick 800 Committee in 1997 and also chaired the Shannon Airport Monitoring Committee of the Limerick Chamber of Commerce.



Martin Morrissey graduated with a first class honours degree in European Studies and a Masters degree in Public Policy from the University of Limerick; he subsequently attended a Management Development Programme at Harvard Business School. He has worked in senior international management positions with a number of leading multinational companies in the electronics and information technology sectors, focused on business development, sales and marketing leadership, and new product introductions. In his role with Shannon Foynes Port Company, which has responsibility for managing the maritime resources in the Shannon Estuary, he has a particular interest in the strategic development of the sector to support new industry, both indigenous and foreign-owned.



Pat Naughton is Strategy and Portfolio Development Manager for ESB International – his role is central to ESB's work on renewable and low carbon technologies. He previously was responsible for ESB's hydro plans and before that managed a number of peat and hydro plans. Prior to this he held a number of management positions in Moneypoint, including Operations Manager and Production Manager. In the early 1980s he worked on the start-up of the CCGT re-powering of North Wall power station.



Kieran O'Brien is a former Managing Director of ESB National Grid and served as a member of the Executive Management Group for more than 15 years. He has been responsible for long term strategic planning in ESB and for relations with the Irish Government and European Union in the fuel and utility sector. Kieran was Acting Secretary General of the World Energy Council (WEC) from 2008-2009 and served two three-year terms as a member of the Officer's Council of the WEC. His international power industry experience extends to Asia, Africa, the Middle East, Eastern Europe, and North America.



Andrew Parish is CEO of Wavebob Ltd, an Irish wave power technology company. Andrew is an entrepreneur, having founded Applied Innovation Ireland; IP Activation Group and Tomn Energy and has provided consultancy services to both the public and private sectors in areas such as business and innovation strategy, applied research, energy and climate change policy. He serves on the boards of the School of Engineering in Trinity College Dublin; the Business Advisory Group of Georgia Tech Ireland, and the Research Advisory Council of the University of Limerick.



Eoin Sweeney is Head of the Ocean Energy Development Unit in SEAI, responsible for initiating and co-ordinating actions to realise the objectives of the national Ocean Energy Strategy – developing research and test facilities, funding industry research and prototyping, assisting development of an appropriate planning and permitting framework, and commissioning expert and consultant reports, e.g. on OE engineering infrastructure and macroeconomics. Eoin has a Masters degree in Economics from UCD. Previously, he managed the Discovery Programme, a major component of SeaChange, the Strategic Programme for the marine sector 2007-2013, within Ireland's Marine Institute.



David Taylor is Chairman of the Energy Institute in Ireland. He is the former Chief Executive of the Sustainable Energy Authority of Ireland, and is the Principal in David Taylor & Associates. He has advised the Oireachtas Joint Committee on Climate Change and Energy Security and was responsible for supporting the Committee's Public Consultation on Ireland's Electricity Needs post-2020.



Daniel Toal is a chartered engineer qualified in both Electrical and Systems Engineering and is the founder and director of the Mobile & Marine Robotics Research Centre at the Department of Electronic and Computer Engineering, University of Limerick (UL). His research interests include ocean engineering, marine robotics, industrial robots, sensor platforms and renewable ocean energy. He has led numerous research surveys off shore as chief scientist on Marine Institute and other vessels focused on marine technology for precision ocean mapping, advanced robotics and renewable ocean energy.

Who should attend?

This conference will be of interest to anyone involved with Irish energy and the key issues facing the future of Ireland's energy supply. Renewable energy developers, energy companies and policy-makers should all find the conference interesting and valuable. It will also appeal to those with a role in local economic development, interested in finding out more about the supply chain opportunities associated with the development of Ireland's ocean energy sector and how Ireland's west coast can be a leading region in Europe for this activity. Those attending will include:

- Energy sector executives
- Renewable energy developers
- Government departments and agencies
- Policy-makers
- Regulators
- Economists
- Potential investors in the sector
- Energy / environmental consultants
- Legal and financial advisors
- Technical consultants
- Manufacturers
- Local economic development organisations
- Local councillors and government officials
- Enterprise agencies



Benefits of attending

Those attending the 'Developing Europe's Ocean Energy Hub' conference will gain an understanding of:

- ✓ The opportunities associated with the development of Ireland's ocean energy resources
- ✓ The attractiveness of Ireland's west coast as a location for development
- ✓ Issues around facilitating ocean energy development including grid investment
- ✓ Ongoing research in the sector at local universities and research centres
- ✓ The policy environment for ocean energy
- ✓ How Ireland fits into the European ocean energy market



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