



## Ireland: A Winner in Marine Renewables?

*Key Action: Support to Deliver 150MW of Marine Renewables Electricity  
Generating Capacity*

### 1. The National Opportunity

Recognising the opportunity that marine renewables presents to Ireland, the Government set a target to deliver 500MW of marine renewables capacity by 2020.

Ireland is one of the early movers in developing marine renewables (wave and tidal) energy. Irish companies are acknowledged to be among the world leaders in developing wave and tidal technologies; Ireland has significant project development and supply chain companies; excellent research and test facilities; and is fully engaged in European initiatives to develop sub-sea interconnectors across Europe which will facilitate Irish electricity exports.

Ireland now has the opportunity to generate up to 34 GW of electricity from our offshore resources<sup>1</sup> including wave and, to a lesser extent, tidal resources. This is four times the total current installed generation capacity on the island of Ireland and represents a significant export opportunity.

### 2. The Prize for Ireland

Independent research<sup>2</sup> conducted for the State agencies SEAI (in the Republic) and Invest NI (in Northern Ireland) forecast that the development of a marine renewables energy industry could generate almost 70,000 new jobs by 2030. It would form the backbone of a major new industrial sector in Ireland creating significant economic activity with potential for exporting electricity as well as goods and services from supply chain firms (the latter worth at least €4Bn).

### 3. Key Action

It is essential that Ireland moves now to develop initial demonstration and pre-commercial projects in order to stimulate this economic activity in Ireland. While significant private sector capital investment will be required to deliver initial projects incorporating high levels of commercial risk, early projects will also require support from the State.

The key support that will unlock this unique opportunity is the *Renewable Energy Feed-In Tariff* (REFIT). REFIT is paid by consumers via a public service obligation levy on their

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<sup>1</sup> Source: Sustainable Energy Authority of Ireland

<sup>2</sup> SQW Economic Study for Ocean Energy Development in Ireland - A report to the Sustainable Energy Authority of Ireland and Invest Northern Ireland July 2010

electricity bill and REFIT for marine renewables is currently set at €220 per MWh. In order to limit the impact on the economy, MRIA propose that REFIT of €220/MWh should be capped to the first 150MW of marine renewables projects and that a review should take place to determine the most appropriate level of support for projects beyond 150MW.

#### **4. Benefits**

Providing REFIT at €220MWh to an initial 150MW will go some way towards unlocking the marine renewable opportunity for Ireland. These early projects will allow industry to develop project management, manufacturing, construction and marine operational experience in Ireland to achieve economies of scale, reduce the cost of marine renewables electricity and lay the foundation for a significant future export market for Ireland.

Initiating a marine renewables industry will stimulate private sector investment into the supply-chain of Ireland's economy. Project expenditure will be in areas such as project development, manufacturing, construction, operation and maintenance and covers a wide spectrum of goods and services that are required for a marine renewable energy project.

Finally, in the short-term marine renewables will provide significant security of supply benefits through diversification of the renewable energy generation portfolio in Ireland. A recent study<sup>3</sup> for RenewablesUK shows that the annual benefits from a diversified (including wave and tidal) renewables mix could be very significant, as much as 3.3% of the annual wholesale cost of electricity.

#### **5. Cost**

MRIA estimate that the capital investment to build the first 150MW will be c.€700m based on NPV to 2014 (assuming an 8% discount rate). This will be met mostly by industry with some contribution from EU sources (NER300; Framework 7 and Horizon 2020) and from REFIT. The estimated draw-down on REFIT based on achieving 150MW by, say, 2020 will increase from €1.9m in 2015 to €39m by 2020 (NPV to 2014 using 8% discount rate); it also assumes 2010 average SEM prices with no increase for inflation.

There are strong economic benefits arising from initiating a marine renewables industry in Ireland through REFIT support for the first 150MW of capacity. The level of investment by the private sector will greatly exceed the level of REFIT support required. In addition, there will be no immediate cost impact on the economy as the first payments will not arise until 2015 at earliest.

Consolidating Ireland's position as leader in marine renewables, with public support for the first 150MW, will attract substantial FDI and other investment, supporting job creation in marine renewables.

#### **6. Other Measures**

In addition to the REFIT tariff, there are other measures that are required in order to realise Ireland's potential and many of these strategic measures are almost cost neutral. They

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<sup>3</sup> *The benefits of marine technologies within a diversified renewables mix - A report for RenewablesUK by Redpoint Ltd*

include the introduction of a modern foreshore consenting system; the holding of a seabed leasing round (which would generate funds for the Exchequer); the development of a strategic approach towards grid planning and capacity allocation and the development of electricity export opportunities. MRIA continues to work with relevant Departments and agencies to address these issues in a plan-led approach.

The MRIA also strongly support the WestWave project<sup>4</sup> proposal to develop an initial wave energy project by 2015 as a tangible way of demonstrating Ireland's ambition in marine renewables. This project will build on the excellent work being undertaken by SEAI in developing test-site infrastructure and supporting Irish technology developers through their Prototype Development Fund. The WestWave project could be one of the first wave energy projects in the world showcasing the significant potential that Ireland has to offer in this emerging sector. It will require State financial aid.

## **7. Conclusion**

Public support for the first 150MW of marine renewables, in the form of REFIT at €220/MWhr, represents one of several cost effective measures that would stimulate significant economic activity for Ireland in a growing sector where Ireland has distinct natural advantages. The adoption of a limit of 150MW drawdown on REFIT of €220/MWh, strikes a practical balance between the requirements of industry to develop the sector and the requirements of the Exchequer in controlling costs in the economy in the coming years.

The Association also strongly supports the work of SEAI to enhance R and D infrastructure, aid companies to develop prototypes, etc through its programme of capital grants.

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<sup>4</sup> See [www.westwave.ie](http://www.westwave.ie)