Winds of Change

The Next Stage for Ireland’s Wind Energy Industry

Ireland is required to source 16% of total energy consumption from renewable energy sources by 2020. In order to meet this overall target of 16% of all energy from renewable sources, the contribution of wind energy to electricity generation will be 33%.

The 16% target is now laid down in national law, which means Ireland must comply or risk breaching E.U. law and face the associated sanctions. This mandatory E.U. and national policy approach is a significant factor in driving the continued development of wind farms throughout the island. The 33% target is the minimum required. However, Ireland has also given itself a ‘best in class’ self-imposed aim of ensuring 40% of all electricity is generated from renewable energy sources by 2020.

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This is a very ambitious target. To put it in context, approximately 1,585MW of installed wind generation capacity is currently on the national grid. In order to meet our target of 40% of electricity generation from wind energy, almost 5,500MW – 6,000MW will need to be installed by 2020, based on forecasted electricity demands for that time. It has taken approximately 20 years of development to install 1,585MW and the target is to build at least another 4,000MW in the next 9 years. There is no doubt that there are sufficient wind farms and suitable sites identified on the island of Ireland to support this development. Almost 1,350MW of further wind farms have entered into contracts to connect to the national grid, while approximately a further 3,500MW are currently awaiting connection offers. It is estimated that another 3,500MW are at earlier stages of consent and development.

These figures do not take any account of the offshore wind farms, which are in various stages of planning and development around the coast of Ireland. Indeed, it is estimated that the wind energy resource onshore in Ireland alone could provide all of the country’s renewable energy needs, while the electricity generated from offshore wind farms would be available for export to the UK and mainland Europe through the electricity interconnectors.

There is a very significant opportunity for Ireland to harness this clean, free, native energy resource to ease our dependence on imported energy while also developing an export industry with its associated opportunities for employment growth.

However, there are a number of factors which could put a dramatic brake on these ambitious targets.

1. The first is the development and reinforcement of the electricity grid to enable all of this wind-generated power to be exported onto it. As many of the best areas for wind farm development tend to be located in less inhabited parts of the countryside, the electricity grid infrastructure can be insufficiently developed for the demands of windpower generation. EirGrid, the operator of the national grid, has launched a major infrastructure investment plan to upgrade the national grid over the next 15 years, called Grid25. One of its main objectives is to facilitate the increased development of wind farms to achieve the 40% target. The on-time delivery of the milestones of consent and development.

2. The second challenge is the financing of this development. A total investment of nearly €12 billion will be required between now and 2020 in order to construct all of the wind farms necessary to achieve these targets.

3. A third issue, linked to the financing challenge, is the renewal of the State price support mechanism for renewable energy generated power. The REFIT (Renewable Energy Feed-In Tariff) Scheme was introduced to provide a minimum price for electricity generated from renewable sources and is administered on a statutory footing. The REFIT mechanism gave very significant comfort to financiers of wind energy projects as they could depend on a minimum price over a 15-year period for the electricity generated from a wind farm. This enabled the structuring of project finance loans for the development of these projects.

The current REFIT Scheme will shortly end for new projects and there is yet to be an announcement on a new scheme to replace it, or to extend the existing scheme for new projects. Until a new scheme is announced, developers of wind farms will find it very difficult to secure financing. The new scheme is with the E.U. Commission awaiting state-aid approval and an announcement is hoped for shortly.

It is clear that, despite a wind speed regime that is the envy of many countries, as well as impressive developments over the last 20 years in the sector, a number of challenges need to be overcome before Ireland can realise its wind energy potential and develop it fully.

However, on our side, we have one of the best wind regimes in Europe for energy generation and superb sites for wind farms on the edge of the Atlantic Ocean. With increasing concerns about climate change, growing awareness of the advantages of electricity from clean, renewable sources, as well as pragmatic concerns about the security of our energy supply, we will continue to see a fair wind driving the use of native renewable energy sources.