IWEA response to the DCENR Consultation on the 2050 Low-Carbon Roadmaps – Electricity Generation Sector

20th December 2013

The Irish Wind Energy Association (IWEA) welcomes the opportunity to comment on the DCENR Consultation on the 2050 Low-Carbon Roadmaps – Electricity Generation Sector. IWEA welcomes the production of the 2050 Low-Carbon Roadmap as it provides an opportunity to demonstrate leadership and ambition in carbon reduction.

While IWEA acknowledges that the current consultation focusses on carbon reductions in the electricity generation sector, it is important to recognise that there is significant overlap with the transport roadmap in terms of the use of electric vehicles and the role they have to play in terms of increased electricity demand at times of traditionally low demand, electricity storage and contribution to overall carbon reduction. The use of renewable energy in heating and cooling, and the potential electrification of heating and cooling will be a feature of the built environment roadmap. There is also significant overlap with the agriculture roadmap in terms of biomass and land use. It is essential that there is communication and coordination between all the relevant departments to ensure that these overlaps are identified and the roadmaps are consistent with each other.

On 15 December 2011, the European Commission adopted the Communication "Energy Roadmap 2050". The EU is committed to reducing greenhouse gas emissions to 80-95% below 1990 levels by 2050 in the context of necessary reductions by developed countries as a group. It is essential that the roadmap developed for Ireland is consistent with the European Roadmap and that the same level of ambition is shown.

Ireland has one of the best renewable energy resources in the world and is at the forefront of electricity generation from renewable energy. IWEA believes that Ireland should continue to show leadership in this area through the development of an ambitious roadmap to 2050. Ireland has the potential to significantly decarbonise the electricity sector through increasing levels of renewable energy integration.

The timeframe to 2050 allows the opportunity to develop a framework for research and development to ensure the appropriate changes can be made to the electricity system to ensure increased use of renewable technologies. Work is already underway in this regard through the EirGrid and SONI DS3 programme for the 2020 timeframe, however further research requirements and opportunities could be identified to ensure further integration of renewables out to 2050. This also provides Ireland with the opportunity to be a world leader in the integration of renewable technologies, and to showcase the new technologies and operational procedures which are required. If we are to be realistic about decarbonisation of the electricity generation sector it is essential that the appropriate framework is introduced early in order to achieve this.

The scoping document outlines the need for flexibility in policies to respond to changes in the policy environment over the period to 2050. While IWEA accepts that some flexibility will be required to account for changing policies and changing technologies, it is important to have a clear signal of renewable energy policy to underpin investment certainty and increase regulatory confidence.

IWEA has some concerns regarding the approach taken in this roadmap. In particular we believe the following comments relating to existing market structures create unnecessary limitations on the energy roadmap.

> *"More robust analysis of the impact of increasing levels of wind and other renewables in the electricity market will be needed before an appropriate future renewable electricity target can be set and its potential impact upon our competitiveness assessed."*
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> *"… the consequences of any increased renewable energy targets for the efficient operation of the SEM will have to be considered."*

IWEA believes that the Roadmap to 2050 should outline the long term objectives of carbon reduction and the sectoral roadmap should identify the particular aspects required in relation to electricity generation. The roadmap should not be constrained by the current market conditions. The current SEM was designed a number of years ago and there is currently a market redesign process underway which is designed to increase cross border trade and to have more efficient use of interconnectors. It is envisaged that this new market design will cater for the increasing levels of renewable energy which will be connecting to the Irish system. It is also likely that in the lifetime of this roadmap there will be further market changes to cater for increasing levels of renewables in the electricity system in support of a new low carbon energy future.

It would also be expected that there will be technology developments to ensure that the electricity system can cater for increasing levels of renewables. By putting an ambitious roadmap in place, the signals are there to ensure that these changes will be supported. By ensuring an appropriate policy, regulatory and market framework, the correct incentives can be put in place to ensure that the objectives of carbon reduction in the electricity sector can be met in the most cost efficient way. Clear signals ahead of time will help to facilitate this at least cost. This will ultimately have a positive impact on Ireland's competitiveness.

Further development of grid infrastructure, further interconnection, the development of smart grid technology and increased demand side participation will all have a role to play in the changing needs of the electricity system. Limiting the ambition of the roadmap to 2050 based on existing technologies will not help foster these new developments nor aid in the introduction of the changes required in the long term.

The widespread generation of electricity from renewables will reduce Ireland's reliance on fossil fuels and increase our energy security. It is unclear at this stage how energy prices will develop in the coming years but the development of renewable energy will provide a hedge against increasing fossil fuel prices.

The positive environmental impact of renewable energy technologies is one of the main drivers behind its development. Any impact assessment needs to take this into consideration in terms of benefits to the environment and through health benefits through reduced greenhouse gas emissions.

In summary, IWEA believes that the Roadmap to 2050 should set ambitious targets for the decarbonisation of the electricity generation sector in line with the European Union Roadmap. The roadmap should not be overly constrained by existing market structures and technologies as there is scope for these to change in the timeframe to 2050, and should provide a clear signal to investors of the policy direction. It is essential that there is communication and coordination between all the relevant departments to ensure that the overlaps between the sectoral roadmaps are identified and the roadmaps are consistent with each other.