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NPF Submissions,
Forward Planning Section,
Department of Housing, Planning Community and Local Government,
Custom House,
Dublin
D01 W6X0

31 March 2017

Submitted by email to npf@housing.gov.ie

Re: National Planning Framework – Ireland 2040 Our Plan

Dear Sir/Madam,

The Irish Wind Energy Association (IWEA) is Ireland's leading renewable energy representative body and as such has an active interest in the potential for renewable energy, and in particular wind energy, in Ireland. IWEA feels it is important to make a submission to the Department of Housing, Planning Community and Local Government (the Department) consultation on the development of Ireland's National Planning Framework and to contribute actively towards future strategy.

IWEA has consistently supported the need for a clear strategic and plan-led approach to our low carbon transition. We believe that the development of a Policy and Development Framework for renewable electricity generation on land, with particular focus on large scale projects for indigenous renewable electricity generation, can contribute to the existing frameworks, and IWEA welcomes that this report aims to provide additional guidance and clarity for planning authorities and An Bord Pleanála.

IWEA is firmly of the view that Irish wind energy as our leading renewable energy asset can, alongside other Irish renewables, make a continued valuable contribution to Ireland's national transition agenda, as set out in the recent Energy White Paper and deliver a cost effective renewable option for Ireland's homes, communities and businesses.

We very much welcome this opportunity to make a submission and look forward to engaging constructively with you in the future as this proceeds.

Yours sincerely,



Adam Ledwith
Irish Wind Energy Association
Head of Communications and Public Affairs

Introduction

In recent years Ireland has become heavily dependent on the importation of fossil fuels in order to meet its energy needs, with imported fossil fuels accounting for over 85% of electricity generation in Ireland. This high dependency on foreign energy imports is unsustainable, costly with over €15.6m per day being spent on energy imports and leaves Ireland vulnerable both in terms of meeting future electricity needs and ensuring price stability. Accordingly, the Department for Communications, Climate Action and Environment (DCCA) energy policy has been moving progressively towards greater levels of self-sufficiency, with renewable energy being a key focus in the Government's Energy White Paper¹.

The White Paper states that renewable energy sources (wind, hydro, landfill gas, biomass and biogas) accounted for almost 23% of Ireland's electricity consumption in 2014; over halfway to our 40% 2020 target. In the same year, wind generation accounted for 18.2% of electricity generated and represented the second largest source of electricity generation after natural gas. SEAI² figures for 2015 show that Renewable electricity generation, (primarily consisting of wind) increased to 27.3% of gross electricity consumption in 2015.

According to the most recent EirGrid Generation Capacity Statement, the 2020 target of 40% RES-E has risen and will now most likely require between 3,800-4,100 MW of onshore renewables generation capacity³. As of March 2016, there was 2,436 MW of wind energy connected and EirGrid have stated, therefore, in order to achieve this target, the average rate of build of onshore wind generation will need to increase to 300 MW per year.

Climate change continues to be one of the most serious global environmental challenges. Low-carbon, renewable electricity production is one of the most cost-effective methods of reducing greenhouse gases across the Energy sector, as well as providing the possibility of contributing additionally to the meeting of targets in Heating and Transport Sectors. IWEA

¹ <http://www.DCCA.gov.ie/energy/SiteCollectionDocuments/Energy-Initiatives/Energy%20White%20Paper%20-%20Dec%202015.pdf>

² http://www.seai.ie/Publications/Statistics_Publications/Energy_in_Ireland/Energy-in-Ireland-1990-2015.pdf

³ http://www.eirgridgroup.com/site-files/library/EirGrid/Generation_Capacity_Statement_20162025_FINAL.pdf

would urge the DCCAIE to continue to pursue a reduction in national greenhouse gas emissions in line with our European and international obligations under COP21. We would ask that future policy development, including this National Planning Framework underpins the transition to a low carbon energy system, a low emissions economy and a sustainable society, as outlined in the Energy White Paper.

The International Panel on Climate Change (IPCC) has put forward its clear assessment that the window for action on climate change is rapidly closing and that renewable energy sources such as wind will have to grow from 30% of global electricity at present to 80% by 2050 if we are to limit global warming to below 2 degrees⁴ and in accordance with the COP 21 agreement to limit global warming to well below 2°C above pre-industrial levels. In this regard the Government enacted the Climate Action and Low Carbon Development Bill 2015 which provides for the approval of plans by the Government in relation to climate change for the purpose of pursuing the transition to a low carbon, climate resilient and environmentally sustainable economy. It is noteworthy in this regard that in Section 5.2.3 of the National Planning Framework it states that the *EPA projections indicate that (Ireland's) emissions for 2020 could be in the range of 6-11% below 2005 levels rather than the -20% target*, so Ireland has a lot of work to do in this regard.

The international context of Ireland's low carbon work must be brought to the forefront of the National Planning Framework. With the 2020 EU Climate and Energy targets now on the horizon, the 2030 climate and energy policy under development, and the recent COP21 global agreement on Climate Change reached late last year in Paris, it is vital that action on sustainable energy is pursued more urgently than ever.

The global focus on sustainable energy brings with it vast economic and community opportunities for Ireland given the resource we have in terms of our wind, wave and other renewable capabilities. Given the appropriate development framework, Ireland has sufficient accessible onshore wind energy resource to meet and exceed our current renewable electricity target of 40% by 2020. In the longer term, Ireland has a landmass of around 90,000 square kilometres, and a sea area of around 10 times that size. Electrifying our energy requirement is therefore a logical route for Ireland.

⁴ IPCC Fifth Assessment Synthesis Report, Intergovernmental Panel on Climate Change AR5 Report

The timeframe to 2020 is a crucial period around the need to focus on the delivery of EU 2020 Climate and Energy targets. The period to 2020, and beyond to 2030 and 2050 is aligned with a period of sustained global efforts to tackle climate change through responsible energy use. The Irish Government in late 2014, agreed to EU targets to 2030 which include a binding renewable energy target of “at least 27%” and a 40% cut in Green House Gas emissions. While the detail of these proposals must yet be confirmed through the EU’s legislative process, Ireland must begin our planning beyond 2020 to ensure our level of climate ambition matches these 2030 goals.

A key area which IWEA would urge the Department to be mindful of when finalising the National Planning Framework, is maintaining competitiveness. With Ireland now progressing towards economic recovery, the issue of economic value and securing the most cost effective solutions to our low carbon transition is vital for business and energy citizens. Within the electricity generation sector, wind energy is proven to deliver the most cost effective renewable electricity for Ireland. This point has been acknowledged by the European Commission in the European Commission publication *A policy framework for climate and energy in the period from 2020 to 2030*⁵ and by Government within the recent the Energy White paper⁶.

The ongoing integration of wind energy onto the Irish grid is assisting in reducing the amount of fossil fuel generators used to produce electricity, which is reducing the wholesale cost of electricity. Provisional EirGrid statistics have shown that by the end of 2015, 24% of total electricity demand in Ireland had been met by wind energy. A further electricity market report carried out by Vayu showed that the average wholesale price of electricity in the Irish market for 2015 was down 9.4% from the average price recorded in 2014, with strong wind generation identified as a key factor⁷.

⁵ <http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:52014DC0015>

⁶ <http://www.DCCAIE.gov.ie/energy/SiteCollectionDocuments/Energy-Initiatives/Energy%20White%20Paper%20-%20Dec%202015.pdf>

⁷ <http://vayu.ie/2015-vayu-annual-energy-report-23-drop-in-irish-wholesale-gas-prices-in-q4-2015-compared-with-last-year/>

*The Value of Wind Energy to Ireland*⁸ study was published in March 2014 by Pöyry, a leading international consulting and engineering consultancy, and Cambridge Econometrics. The analysis shows that if Ireland deploys wind capacity to meet 2020 targets the wholesale price will fall by €2.10/MWh by 2020 and that wind energy does not place a burden on the Irish consumer due to the net economic benefits of wind energy development. The European Commission confirmed in its Working Document on Energy Prices and Costs⁹ that “for wind electricity in Spain and Ireland the benefits for electricity consumers in terms of reduction in whole-sale prices outweigh the costs of subsidies.” Furthermore, the report showed that if Ireland meets its 2020 targets using wind energy this will bring €3.5 billion of direct investment into the economy, contribute considerably to economic growth and provide at least €1.8bn additional cumulative tax revenue to the Irish State.

IWEA Commentary on National Planning Framework

In order for Ireland to meet its future renewable electricity needs in a sustainable manner, and in compliance with environmental, heritage, landscape and amenity considerations, it is necessary to put key enablers such as the National Planning Framework in place. IWEA welcomes that in order to transition to a low carbon economy the Framework acknowledges the requirement that “the renewables sector will become more and more central to meeting our energy demands”. It is important that the National Planning Framework sets out clear unambiguous policy support to the renewable energy sector in order to allow it to play its role in decarbonising electricity generation in Ireland. IWEA agrees with the option in set out in Section 5.3.7 of the framework “to create Strategic Energy Zones or Corridors”. IWEA suggests that the National Planning Framework should include strategic level guidance on locations for renewable electricity projects, which will take precedent over existing county development plans, and inform future regional and local planning policies. IWEA recommends that the National Planning Framework could set the high-level policy for identifying such Strategic Energy Zones and that the detail in terms of actually identifying such zones could be managed at a regional level to help ensure consistency across the country. IWEA understands that the regional planning policies are currently being reviewed

⁸ <http://www.iwea.com/index.cfm/page/industryreports?twfId=1467&download=true>
file:///C:/Users/Stella/Desktop/EconomicBenefitsOfWind_41X187872_Final.pdf

⁹ <http://register.consilium.europa.eu/doc/srv?!=EN&t=PDF&f=ST+5599+2014+ADD+6+REV+1>

in tandem with this consultation and as such it could be an opportune time to put such a structure in place.

The National Planning Framework must provide a consistent overarching policy, irrespective of Local Authority boundaries, which addresses current inconsistencies across adjoining Local Authority areas. Such inconsistencies are regularly seen to have serious implications for renewable electricity projects such as wind farms and solar farms. The inconsistencies usually arise in terms of landscape classifications (sensitivity, value, carrying capacity) and renewable energy development control policies (areas deemed suitable, unsuitable, strategic, open to consideration, etc.). The established practice of renewable energy projects only being guided by local planning policies within any one county is inconsistent with the real-life challenges faced when trying to progress plans for projects. Difficulties regularly arise for example when the capacity of a landscape character area in one county deems a certain project to be acceptable, but yet is located close to the boundary of another Local Authority area with a different assessment of landscape capacity. Similar challenges arise when a project in one Local Authority area has to be assessed from a landscape and visual impact perspective over a distance of 25-30 kilometres, which may extend into other Local Authority areas with different landscape policies.

Landscape Character Assessments, Landscape Strategies and Wind or Renewable Energy Strategies have all often been prepared by adjoining Planning Authorities, at different times, often following different guidance or approaches.

In order to best guide the development of renewable electricity projects, the National Planning Framework should identify a consistent, nationwide approach to selecting areas as suitable for renewable energy projects, regardless of what landscape, renewable energy or planning policy classifications already exist across the country in different Local Authority areas. The National Planning Framework must sit above existing regional and county planning policies including local authority renewable energy strategies, and must inform future revision of those regional, county planning policy documents and renewable energy strategies.

The following positive proposals are noted under Section 5.3 of the Framework:

- 5.3.6 There is a need for a co-ordinated approach as to how these projects are delivered if we are to achieve a low carbon economy and carbon neutrality in various sectors. This raises questions about the type, scale and location of renewable infrastructure such as wind and solar renewables and on-shore and off-shore locations to meet renewable targets.
- 5.3.7 At a national level, it may be an option to create Strategic Energy Zones or Corridors, similar to Strategic Development Zones, as areas of national priority for renewable energy investment, as well as to provide a test bed for new technologies and developing solutions for carbon storage and capture.
- 5.3.8 At a regional level, Regional Economic and Spatial Strategies will have a role in this area through regional approaches to renewables such as wind farms, solar farms and district heating provision and coordination across local administrative boundaries. This may also address the overlapping policy area of landscape and landscape characterisation.

IWEA suggests that any strategic areas identified for renewable electricity generation must be incorporated into future revisions of Regional Guidelines. As described in the previous section, IWEA suggests that the Regional Guidelines should be used instead of the Local Authority development plans to map the renewable energy strategies for the different Local Authorities.

Life extension of wind farms is also something that merits consideration in the Framework. Typically, wind farms have a life span of 20 years, and may have requirements to decommission under their planning approval. In some cases these projects are still able to generate renewable electricity if an extension was to be granted, without the need to repower. The benefits of life extension would include the potential for cost savings and a reduction in environmental impacts.

IWEA would like to draw attention to the sections on Population and Human Health in the National Planning Framework. There have been many peer-reviewed studies published on the subject of human health and wind turbines which have shown no negative effect on human health. Studies include those carried out by Yale, Prof. Chapman, School of Public Health at Sydney University Medical School, MIT and Health Canada, among others and some of these are listed in Appendix I.

IWEA welcomes the proposal that the SEA will examine the potential impacts of renewable electricity generation on air quality. IWEA recommends that the Department emphasises the benefits of wind energy to human health in the Framework, showing how wind energy is working to reduce harmful air emissions.

Maximising Opportunity

There is a suggestion in Section 5.3.5, that Ireland's renewable electricity requirements may not be able to be spread evenly across the country, and not all counties will be in a position to meet their share of the country's renewable energy obligations, *"In particular, some areas of the country are better suited to the generation of renewable energy and differing types of renewable energy infrastructure"*. Accepting this as a basis for policy guidance on future development of renewable electricity projects, will most likely lead to a concentration of projects in certain geographical locations that have the capacity to accommodate such projects.

It is suggested that the number of suitable, strategic areas should be dictated by the number of suitable, strategic areas that emerge from the SEA process running alongside the preparation of the National Planning Framework. It is not considered prudent to only seek to identify a limited number, particularly in light of international and binding EU targets for reductions in greenhouse gas emissions and increases in renewable energy penetration. Any suitable strategic area with the potential to accommodate a renewable electricity project, should be identified in the National Planning Framework to allow its full potential to be assessed further as part of the Regional Plans. The identification of areas as being suitable, strategic areas, will not necessarily translate into them being actually available for the development of projects. Many areas identified as suitable and strategic may never be brought forward through the planning processes due to difficulties in securing landowner consents, assembling a sufficient land bank for a project, grid connection distances or project economics. Therefore, at this stage, all suitable, strategic areas should be identified for further consideration. Acknowledging the Departments intention to carry out periodic reviews of the Framework. This is suggested as a beneficial approach to maximise the potential of Ireland's renewable energy resources, rather than limiting that potential from the outset.

If the National Planning Framework is to broadly identify suitable, strategic areas for renewable electricity generation that should not preclude other areas that might not be broadly identified from being considered to accommodate such projects. The merits and potential of any site should be considered at a project-level, before being definitively ruled out as being unsuitable. For example, EU guidance¹⁰ is available on wind energy

¹⁰ Guidance Document – Wind energy developments and Natura 2000. Publications Office of the European Union, 2011

http://ec.europa.eu/environment/nature/natura2000/management/docs/Wind_farms.pdf

development in accordance with the EU nature legislation (Natura 2000), which does not automatically preclude such developments in such areas, but instead outlines for how such developments should be considered and assessed. In summary, it is suggested that if the National Planning Framework identifies certain areas as suitable and strategic for renewable electricity projects of scale, that should not infer that any areas not identified are unsuitable. IWEA urges that consideration be given to Re-powering existing generation. Re-powering will be a major issue for all the windfarms built before c.2000. These windfarms predominantly comprise turbines with a capacity of less than 1MW size. The advantages of re-powering are clear: these windfarms can re-power, reduce the numbers of turbines, improve efficiency, produce more power and use more cost effective, advanced technology. Though not always the case, neighbours of longstanding wind farms often have a positive view of replacing turbines with fewer more efficient modern ones. The re-power opportunity for Ireland should be embraced and Ireland can learn from the Danish experience of re-powering.

Conclusion

As a sector which is now almost 25 years old, wind energy in Ireland has been developing in parallel with the growing understanding and acknowledgement of the importance of climate issues, security of supply concerns, and Ireland's need to make a transition to a low carbon economy and power system. We are keen to bring this work and experience to the National Planning Framework.

As the vast majority of new renewable capacity will be provided by on-shore wind, the 40% target is a significant challenge for the Irish wind industry as a whole. Ireland's current total installed wind capacity is 2,436 MW, generated from over 200 wind farms and with the capacity to supply electricity to over 2 million homes¹¹. There are also associated positive economic impacts from the use of wind and renewable energy in Ireland. The requirement for large scale data storage is growing year on year and data centres will be at the core of the 21st century economy. Given their considerable electricity consumption, internet giants, such as Facebook, Apple, Amazon, Intel, are increasingly looking to power their data centres using clean and renewable power sources, which constitutes a massive opportunity for Ireland, which has clean wind energy in abundance. Already 2015 has seen investments

¹¹ http://www.iwea.com/windenergy_onsore

totalling over €1bn from Facebook and Apple in 100% renewable powered data centres, which are premised on the availability of Irish renewable energy.

The further increased electrification of heat and transport are both key necessary developments for the next period. With this in mind and in line with the EU roadmap, we would further call for a key focus to be the electrification of heating and transport. By electrification of heating, cooling and transport, for example through employing highly efficient heat pumps and electric vehicles, Ireland's primary energy requirement may be reduced while at the same time enabling increased use of renewables in our energy mix.

While IWEA welcomes the proposed review of this Framework to ensure it remains fit for purpose, we would stress the importance of enshrining the original commitments and policy objectives made with regard to wind energy in Ireland.

IWEA welcomes policies and objectives that explicitly illustrate our national move towards indigenous renewable energy, maintain a consistency of policy framework, work to ensure our indigenous energy security of supply, and develop collaborative initiatives which clearly illustrate and educate about how such a transition to a low carbon economy can continue to be moved forward.

We thank you again for the opportunity to contribute to the National Planning framework and we hope you will consider our proposals in relation to the use of regional authorities when identifying strategic zones or corridors for energy infrastructure. We look forward to further engagement on the subsequent consultations on the Framework.

IWEA would welcome an active engagement with the Department to discuss any aspect of our feedback and offer our positive contribution as the largest renewable representative body in Ireland to the work of the Department.

Appendix I – Additional information relating to Wind Turbines and Health

Wind Turbines and Health: A Critical Review of the Scientific Literature¹² is a Massachusetts Institute of Technology (MIT) commissioned report, funded by CanWEA, in which MIT researchers reviewed the scientific literature on wind turbines, noise and human health. The reports from questionnaires indicate that perception of irritation and the sound of wind turbines are less related to the actual noise level at a site than to people's attitudes toward turbines."ⁱ

The Massachusetts Department of Public Health Expert Panel also found that wind turbines do not have any adverse affects on human health. (Executive Summary P. ES-1 – ES-13 Wind Turbine Health Impact Study: Report of Independent Expert Panel¹³)

The Health Canada Wind Turbine Noise and Health Study¹⁴ clearly demonstrated that there is no relationship between exposure to wind turbine noise and self-diagnosed medical or health conditions. This view is shared by Ontario's Chief Medical Officer of Health, who states that scientific evidence proves there is no causal link between wind turbine noise and negative health effects. (Summary P.3 / Wind Turbine Regulation in Ontario P.8-9 / Main Conclusions P.10; The Potential Health Impact of Wind Turbines¹⁵)

The Quebec National Institute of Public Health issued a report¹⁶ on wind turbines and public health (French only) which concluded that "*wind turbine generated infrasound does not seem to be of sufficient intensity to cause health problems or annoyance*".

¹²

http://journals.lww.com/joem/Abstract/2014/11000/Wind_Turbines_and_Health_A_Critical_Review_of_the.9.aspx

¹³ <http://www.mass.gov/eea/agencies/massdep/service/massdep-site-help.html>

¹⁴ <http://www.hc-sc.gc.ca/ewh-semt/noise-bruit/turbine-eoliennes/summary-resume-eng.php>

¹⁵ http://health.gov.on.ca/en/common/ministry/publications/reports/wind_turbine/wind_turbine.pdf

¹⁶ <https://www.inspq.gc.ca/publications/notice.asp?E=p&NumPublication=1015>

A Summary of main conclusions¹⁷ reached in 25 reviews of the research literature on wind farms and health compiled by Prof Simon Chapman and Teresa Simonetti, Sydney University Medical School. Study results¹⁸ found a consistent conclusion of wind energy having no negative impacts on health.

A report¹⁹ released by the South Australian Environment Protection Authority (EPA), concluded that “...the level of infrasound at houses near the wind turbines assessed is no greater than that experienced in other urban and rural environments, and that the contribution of wind turbines to the measured infrasound levels is insignificant in comparison with the background level of infrasound in the environment.” A review by the Energy & Policy Institute stated²⁰ that over the course of 17 Canadian hearings “courts found that wind farms would not and do not cause health impacts”.

ⁱ <http://www.windpowerengineering.com/maintenance/safety/does-turbine-noise-affect-human-health-a-look-at-the-literature/>

¹⁷ <http://ses.library.usyd.edu.au/handle/2123/10559>

¹⁸ <http://ses.library.usyd.edu.au/handle/2123/8977>

¹⁹ <http://www.aweablog.org/south-australia-study-finds-infrasound-from-wind-farms-not-a-concern/>

²⁰

<https://d3n8a8pro7vhmx.cloudfront.net/energyandpolicy/pages/170/attachments/original/1408021479/Wind-Health-Impacts-Dismissed-In-Court-Final.pdf?1408021479>