



IWEA Submission on Pre-Draft stage of Galway County Development Plan 2022-2028

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1 Introduction

IWEA welcomes the opportunity to make this submission at the pre-draft stage of the review of the Galway County Development Plan.

1.1 County Galway's Wind Energy Strategy

Galway County Council is to be commended for preparing its first wind energy strategy in 2011, as it was then one of the first Local Authorities to adopt a progressive approach to the spatial planning of wind energy development that directed wind farms to the most appropriate parts of the County. In 2011, the "Gate 3" grid connection offers that had that already been issued to wind farms in County Galway, quantified how many megawatts (MW) of wind energy development needed to be built in subsequent years to meet the Government's 2020 targets. The 2011 Wind Energy Strategy provided a plan-led, supportive policy framework for the wind energy industry to bring forward planning applications for developments of appropriate scales in appropriate locations. From the wind energy industry's perspective, that 2011 Wind Energy Strategy was a very useful document, which stood the test of time as it was incorporated into successive County Development Plans, and enabled the vast majority wind farm projects that had secured Gate 3 grid connection offers, to secure planning permission.

By now initiating the preparation of a new Renewable Energy Strategy (RES) for County Galway as part of the preparation of the Galway County Development Plan 2022-2028, Galway County Council is again to be commended for taking the opportunity to review its renewable energy policies at the start of a new decade, in light of quiet different Government climate change, environmental and energy policies.

Changes to various Government renewable energy policies in recent years has now put planning permission as the critical first stage of any renewable energy projects. Only when planning permission is secured can a project now apply for a grid connection to export the energy to the national electricity grid and identify a route to market to sell the power. Therefore, clear and supportive planning policies for wind and all renewable energy developments will be required to ensure we meet the challenges of addressing climate change and decarbonising the Irish economy over the next decade.

With County Galway's significant area, the world-class wind energy resource, good electricity transmission infrastructure, and as county with a very large electricity demand given the large population and level of industry located within, County Galway needs a progressive and ambitious RES with clear and supportive policies in favour of further wind energy development.

1.2 IWEA and Wind Energy in Ireland

The Irish Wind Energy Association (IWEA) is the representative body for the Irish wind industry, working to promote wind energy as an essential, economical and environmentally friendly part of the country's low-carbon energy future.

We are Ireland's largest renewable energy organisation with more than 150 member companies who have come together to plan, build, operate and support the development of the country's chief renewable energy resource.

Ireland's 2020 energy target of 40% renewable electricity was a key driver in the development of wind power over the last decade. Ireland has over 250 operational wind farms, which represents an investment of over €7 billion, regularly powering 65% of Ireland's electricity needs. The wind energy industry also supports 4,400 jobs and annually pays more than €30 million in commercial rates to local authorities. We are a country with enormous renewable energy resources and are world leaders at incorporating onshore wind into the national grid.

Wind energy currently provides almost 33 per cent of Ireland's electricity, which is the highest share of electricity being provided by onshore wind in Europe, and this is expected to rise as we decarbonise our electricity system¹. In 2018 wind energy avoided 3.1 million tonnes of CO₂ and cut €432 million off our fuel import bill² demonstrating the huge contribution that onshore wind is making to climate action.

Wind energy decarbonises our electricity supply, cuts our import bill and drives down wholesale electricity prices.

To achieve this, Ireland has built over 250 onshore wind farms, mostly since 2003, with a combined capacity of approximately 4,100 MW and over 2,500 wind turbines. Even though these wind farms are supplying Ireland with the highest share of onshore wind in any EU electricity system, the resource in Ireland is so large that Ireland's turbine density is relatively low by other EU standards.

Five other EU countries have a higher number of turbines per square kilometre than Ireland, as shown in Figure 2, suggesting there is still potential for further growth.

¹ <https://www.linkedin.com/pulse/wind-generation-ireland-2019-martin-howley/>

² <https://www.seai.ie/publications/Energy-in-Ireland-2019-.pdf>

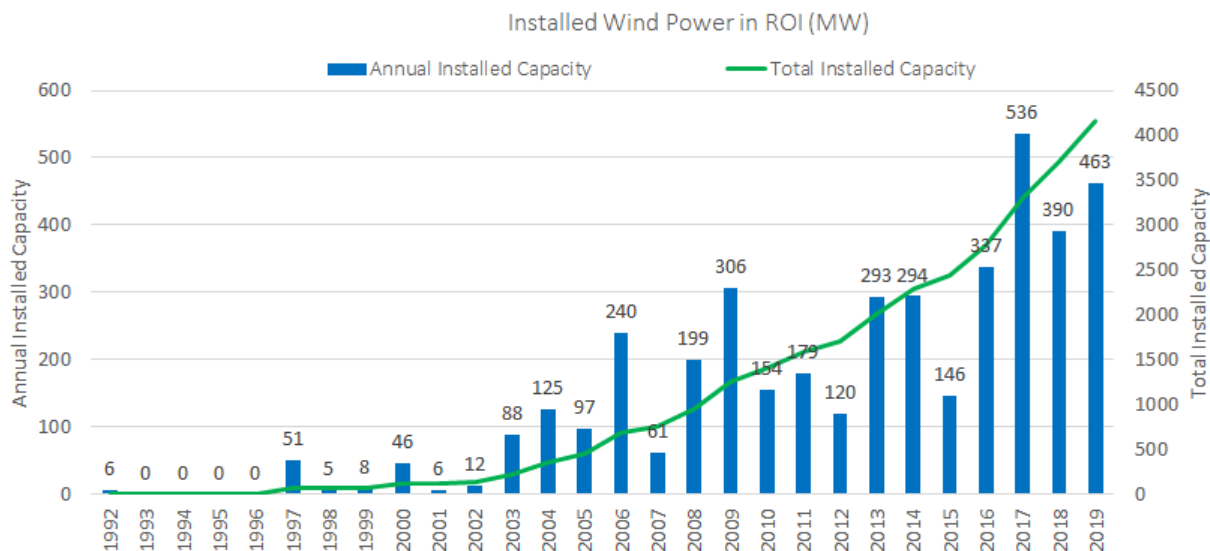


Figure 1: Installed capacity of onshore wind in Ireland since 1992.

Turbine Density in Europe

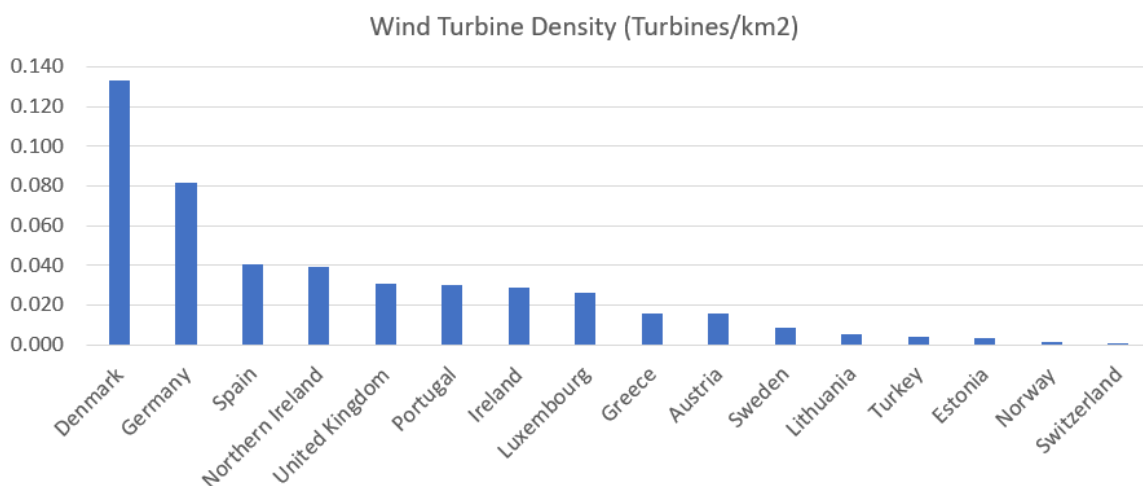


Figure 2: Turbine density in various European countries.

Onshore wind needs to continue growing in Ireland to meet future renewable energy targets with Ireland’s Climate Action Plan proposing an increase from ~4200 MW at the end of 2020 to ~8200MW by 2030. That is why it is critical that the new Galway RES provides every opportunity to get as many of the projects currently in development through the planning and approvals system to enable them to contribute to hitting our 2030 targets.

1.3 Wind Energy Is Popular

The most recent opinion poll carried out for IWEA by Interactions found that 79 per cent of Irish people were strongly in favour of, or tended to favour, wind energy (Figure 3). It is important to reiterate that these figures have been replicated over the years and with different polling companies. An Ipsos MRBI poll from February 2016 found support for wind energy at 70 per cent and polls from the same company in 2014 and 2013 found that opposition to wind energy only once, in 2014, reached double figures at 12 per cent. A 2016 opinion poll carried out by Research Now for the ESRI put support for wind energy at 78 per cent positive versus 10 per cent negative making it more popular than gas, coal and biomass³ (Figure). The Irish people support clean, renewable, indigenous energy.

Favourability towards Wind Power

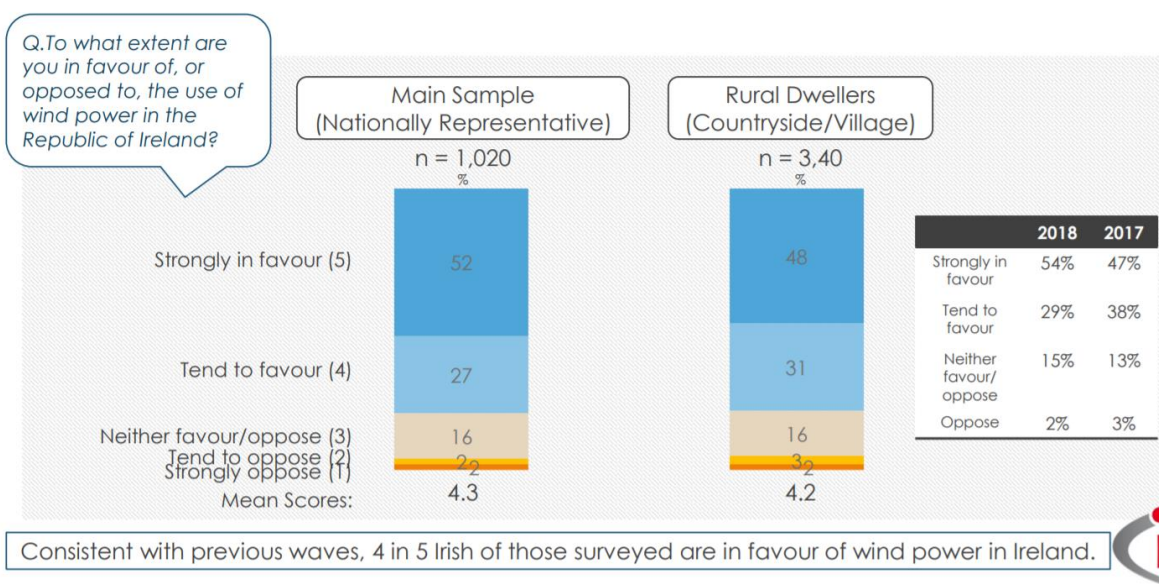


Figure 3: Results from opinion poll carried out by ‘interactions’ on the attitude of Irish people towards wind energy⁴.

³ ESRI Working Paper 545. October 2016.

⁴ <https://iwea.com/latest-news/2948-new-poll-confirms-overwhelming-majority-back-wind-energy>

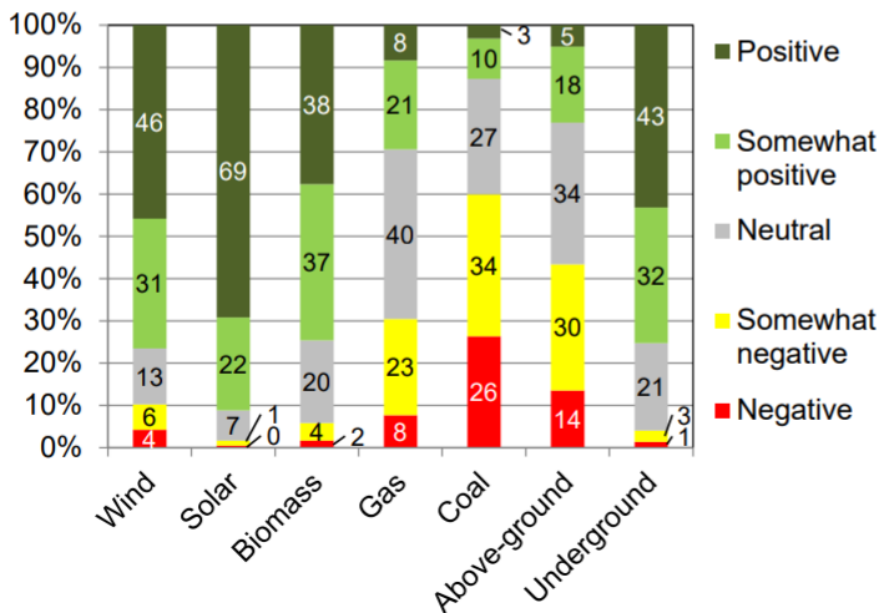


Figure 4: Irish Residents Views of Energy-Related Technologies (Bertsch et al., ESRI, Journal of Energy Policy 2017⁵)

IWEA believes it is important to consider the views of those living near wind farms, but also of wider Irish society when identifying the priorities for the RES for County Galway.

⁵ <http://dx.doi.org/10.1016/j.enpol.2017.04.008>

2 Policy Ambition

IWEA encourages Galway County Council to take an ambitious approach in deciding the actual installed capacities of wind energy in the new RES for County Galway. The strategy is going to aim to facilitate by way of how many MW or GW of wind energy it should make provision for in lands they deem acceptable in principle or open for consideration.

To-date, there does not appear to be any central Government or Regional Assembly guidance on how many MW or GW of new wind energy development each Local Authority like Galway County Council will need to be making provision for. In this absence of such guidance, Galway County Council should seize the opportunity and seek to identify enough land to accommodate as much as possible of the additional 4.2GW of additional onshore wind energy required by the Climate Action Plan by 2030.

The quantum of land identified as potentially suitable for wind energy development must go far beyond the actual amount required, to allow for a natural attrition rate across development sites and projects.

To deliver 4.2GW of new wind energy capacity on-shore by 2030 to meet the Climate Action Plan's target, will require a sufficient quantum of land to accommodate many multiples of 4.2GW to be classified as suitable for wind energy. This multiple is required to allow for the natural attrition rate of the wind energy development process, where every site or area that has theoretical potential, cannot convert that theoretical potential into actual potential, as illustrated in the graphic opposite, taken from the SEAI Methodology for Local Authority Renewable Energy Strategies.

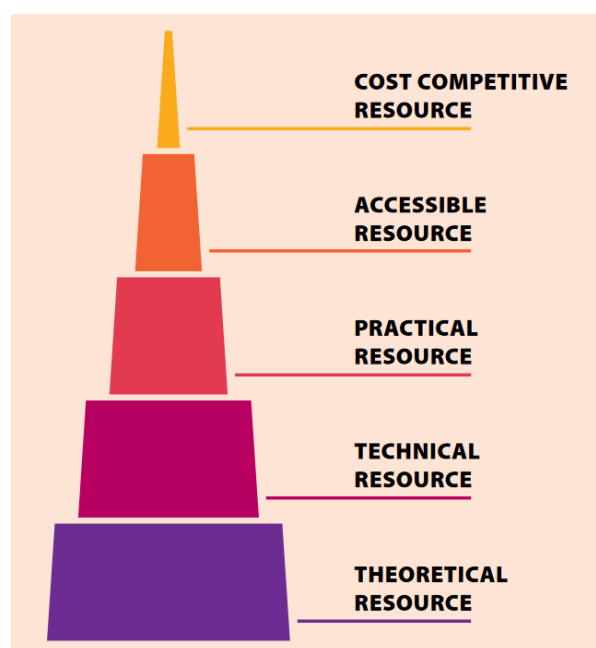


Figure 5: Geographical representation of sieve analysis approach (Methodology for Local Authority Renewable Energy Strategies, SEAI)

The theoretical resource is reduced for many reasons. Even where a site is considered suitable for a wind energy development in a RES, landowners may not be agreeable to accommodating a project on their lands. If landowners are agreeable, site-specific environmental constraints such as bird activity, peat depth/stability or a high concentration of neighbouring properties might rule a site out. If no such constraints exist, a project's planning application could still be refused permission, or if granted,

overturned on judicial review. If granted permission, a project may not be able to secure an economically viable grid connection, or be able to find a route to market for its electricity that make the construction of the project a commercially viable proposition. These are just a few examples of the hurdles a project must clear to convert theoretical potential to actual, delivered capacity. To deliver 4.2GW of new onshore wind by 2030, is likely to require a quantum of land sufficient to accommodate 15-20GW of land to be identified as suitable for wind energy, if we want to see 4.2GW actually delivered and connected based on a theoretical analysis and a view from IWEA members on likely success rates.

Galway County Council will need to classify a sufficient quantum of land as being potentially suitable for wind energy, based on what that will likely translate to in installed MW or GW capacities using the project attrition hurdles highlighted above.

IWEA strongly suggests that the CDP and RES for County Galway must classify a sufficient quantum of land as being suitable for wind energy, to ensure national renewable energy targets can be achieved, and demonstrate how the quantum of land classified as suitable is sufficient for this purpose.

A clear policy ambition in the CDP and RES for County Galway is critical to guide the strategy and the identification of a sufficient quantum of potentially suitable land. For example, If Galway County Council wanted to identify areas sufficient to accommodate 400MW, it should be able to do so. Equally, If Galway County Council wanted to identify areas sufficient to accommodate 800MW, it should also be able do so by applying slightly different criteria to the constraints or sieve mapping exercise, or how the strategy consideration of landscape capacity. IWEA contend that the level of policy ambition set by Galway County Council should dictate the criteria used in preparing their wind energy portion of the new RES for County Galway, rather than just “running” a standard approach and seeing what the strategy ends up with.

3 Methodology

IWEA would like to compliment Galway County Council for adopting the LARES approach to the preparation of the new RES for County Galway.

Galway County Council will be aware of the Department of Housing, Planning and Local Government's (DHPLG) recent public consultation on the Draft Revised Wind Energy Development Guidelines, and specifically Chapter 3 of the draft guidelines on planning for wind energy development through the Local Authority development plans and wind or renewable energy strategies.

In our submission to DHPLG on the Draft Revised Wind Energy Development Guidelines, IWEA has already suggested that the step-by-step guide outlined in Section 3.6 Draft Revised Wind Energy Development Guidelines should be strengthened to give clearer direction to planning authorities on the need to consult with neighbouring planning authorities to ensure a consistent approach across county boundaries, and that this interaction with adjoining Local Authorities be made a mandatory part of the preparation of the RES. IWEA similarly encourages Galway County Council to engage with its adjoining Local Authorities of Galway City Council, and the County Councils of Clare, Tipperary, Offaly, Roscommon and Mayo to ensure a consistent approach is taken across county boundaries as each Local Authority moves to prepare or review its RES.

When preparing the new RES for County Galway, IWEA urges Galway County Council **not** to consider the following potential constraints or facilitators in the process of identifying areas as being potentially suitable for wind energy developments:

1. **Grid Capacity** - Existing or planned electricity grid capacity should not be considered a constraint for the purposes of determining whether areas of County Galway are suitable or unsuitable for wind energy development. Grid capacity is a technical and electrical engineering constraint that is managed by the TSO/DSO and new infrastructure is often provided on the basis of there being a need to connect wind energy developments to the electricity grid, thereby further reinforcing grid infrastructure in counties where this work would not otherwise have occurred without wind energy development.
2. **Wind Speed** - Wind speed should not be used as a constraint for site suitability or unsuitability at the strategy preparation stage, as wind turbine technology is quickly evolving to be able to harness lower wind speeds than was not thought possible only a few years ago. The SEAI Wind Atlas of Ireland is also derived from a computer model and would not be as accurate as on-site wind measurements which are used by wind energy developers to verify a site's wind regime as being viable. Therefore, for these two reasons, to exclude areas

solely on the basis of wind speeds derived from a national wind atlas would be an overly conservative approach and would unnecessarily prevent a suitable classification being applied to what otherwise could be a perfectly viable site.

3. **Nature Conservation Areas** - Areas designated for nature conservation should also not be automatically excluded from accommodating new or repowered wind energy projects. This is because, for example, in such constraints-led studies, Special Protection Areas (SPAs) would typically be deemed unsuitable. However, there is greater than 1GW (1,000MW) of wind energy developments currently in operation in SPAs, and the two wind farms operational in the Slieve Aughty Mountains in County Galway were in place or permitted before that area was designated as an SPA. Considering such SPAs as unsuitable for future wind farms prevents the existing projects from being re-powered in years to come and would prevent innovative measure being proposed that could actually do more to achieve conservation objectives of SPAs than the alternative of doing nothing or decommissioning.

3.1 Landscape Capacity and Landscape Sensitivity

The current Galway Wind Energy Strategy and other counties’ Development Plans and Renewable or Wind Energy Strategies providing locational guidance for the siting of wind farms, have traditionally directed them towards landscapes of lower sensitivity. These lower sensitivity landscapes would generally be considered to have a higher capacity to accommodate wind energy developments, or in fact any type of development. As illustrated in Figure 6 below, the least sensitive landscapes would generally be considered to have the most capacity to accommodate development, while the most sensitive landscapes would generally be considered to have the least capacity to accommodate development.

As decarbonisation and renewable energy ambitions increase, wind energy developments will have to extend from the least sensitive landscape areas with the most capacity, into areas of slightly more sensitive landscape.

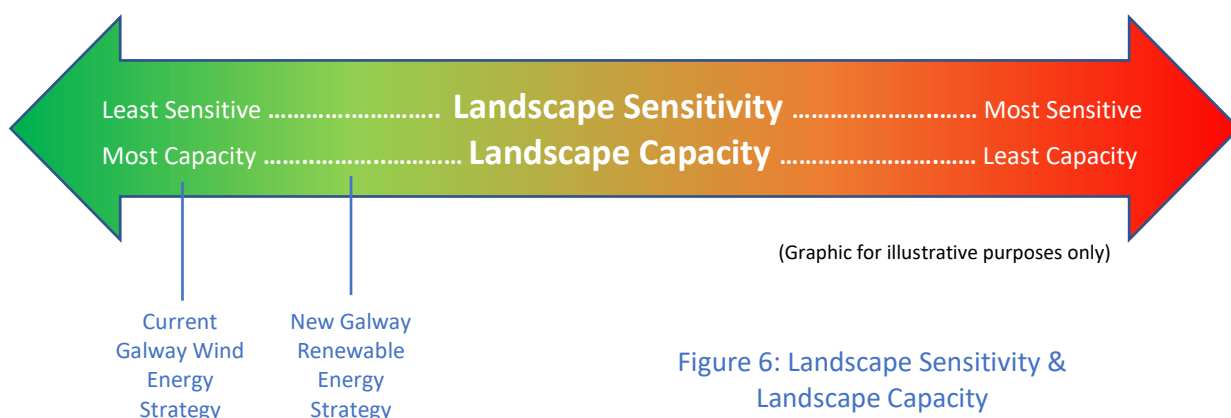


Figure 6: Landscape Sensitivity & Landscape Capacity

METHODOLOGY

The Government's Climate Action Plan will require a further 4.2GW of wind energy to be installed onshore by 2030. This additional 4.2GW will have to be located in areas of slightly greater landscape sensitivity than the 4GW already installed. However, there remains significant landscape capacity across the country and across County Galway to fulfil the State's onshore wind energy and renewable energy ambitions. The most scenic parts of County Galway should still be protected and deemed not normally permissible for wind energy in the new RES for County Galway, but it will still be necessary to extend the areas that will be considered suitable for wind farm development into slightly more sensitive landscape areas if we are to deliver on the requirements of the Government Climate Action Plan over the coming decade.

4 Regional Approach

IWEA acknowledges that Galway County Council is only responsible for its own functional area and that the new CDP and RES for County Galway will only extend as far as the Galway County boundary. However, IWEA would like to highlight to Galway County Council where it is expected the new CDP and new RES for County Galway will fit into a regional and national planning policy context in the future.

IWEA has been advocating for a regional-approach to the spatial planning of wind farm developments for some time, to compliment the Local Authority-level approach that has been the case to-date. IWEA previously prepared a Discussion Document (available upon request) on this specific topic which outlines the following benefits of a regional approach:

- It fits within and neatly compliments the Regional Spatial and Economic Strategies (RSES) now prepared for the three regions. (As the three RSES policy documents have now been formally adopted, spatial plans for renewable energy projects can be progressed as supplementary work streams by the Regional Assemblies and compliment the RSES).
- A single, consistent methodology can be used across an entire region and across all three regions in the country, including across county and local authority boundary areas where approaches to-date have been inconsistent in many cases.
- A regional approach would ensure that the optimum locations for wind energy development are identified, and every county's potential is assessed in a regional and national context, in direct comparison with the rest of the region.
- It would ensure that national targets, objectives and requirements for the delivery of wind energy, directly translate into the identification of suitable areas and corridors, and a sufficient quantum of land is identified and deemed appropriate to ensure national targets, objectives and requirements can be delivered.
- Landscape sensitivity, value and capacity can be assessed on a broader, regional scale, rather than just within the sometimes-limited confines of an individual county. This would provide consistent, evidence-based landscape policies across local authority areas, and ensure the appropriate landscape policies are implemented irrespective of the county boundaries. This would ensure that wind and other electricity infrastructure projects that span or are visible across county boundaries, can be assessed in a consistent landscape policy context.
- Landscape sensitivity and capacity assessments could be undertaken for wind energy and other electricity infrastructure on a regional basis, without needing the National Landscape Strategy to be completed. While the National Landscape Strategy will have to provide for all

forms of development and types of land uses, the assessment of landscape sensitivity and capacity specifically for wind energy and electricity infrastructure is a much more defined work stream, that could be progressed in advance. Existing Local Authority landscape policies can be used to align landscape values across a region, to ensure existing local policy is fully considered when moving to a regional approach for the assessment of landscape sensitivity and capacity for wind energy and other electricity infrastructure.

A regional approach to the spatial planning for wind energy was suggested by IWEA as far back as March 2018, and is still considered vital if the transition to a low carbon economy in the coming years is to be successful. IWEA maintains it is essential to plan for this transition, on the basis of the three Regional Assembly areas, in addition to the 31 Local Authority areas as has been the case to-date. The regional approach would undoubtedly provide a more appropriate platform for ensuring national policy can be transposed effectively to local level, and ensure a consistent approach is used across the entire country that reflects Government policy.

With this regional approach in mind, IWEA engaged proactively in the public consultation processes run throughout 2018 and 2019 on the Regional Spatial and Economic Strategies (RSESs) resulting in the following policy objectives being incorporated into the adopted RSES documents.

The Northern & Western Regional Assembly's RSES adopted on 24th January 2020 includes the following objective:

“RPO 4.16 The NWRA shall co-ordinate the identification of potential renewable energy sites of scale in collaboration with Local Authorities and other stakeholders within 3 years of the adoption of the RSES. The identification of such sites (which may extend to include energy storage solutions) will be based on numerous criteria including environmental matters, and potential grid connections.”

The Eastern & Midland Regional Assembly's RSES adopted on 28th June 2019 includes the following objective:

“RPO 7.35: EMRA shall, in conjunction with local authorities in the Region, identify Strategic Energy Zones as areas suitable for larger energy generating projects, the role of community and micro energy production in urban and rural settings and the potential for renewable energy within industrial areas. The Strategic Energy Zones for the Region will ensure all environmental constraints are

addressed in the analysis. A regional landscape strategy could be developed to support delivery of projects within the Strategic Energy Zones.

The Southern Regional Assembly's RSES was adopted on 31st January 2020 and includes the following objective:

*"RPO 94 Regional Renewable Energy Strategy
It is an objective to support the development of a Regional Renewable Energy Strategy with relevant stakeholders*

The 3-year timeframe for the co-ordination of the identification of potential renewable energy sites of scale in the Northern & Western Regional Assembly area is particularly relevant in the context of the new RES for County Galway given the timeframes for the preparation and adoption of the new Galway County Development Plan by May 2022.

In addition to the Local Authority-based approach to incorporating renewable strategies into their respective development plans, to compliment the Renewable Electricity Policy and Development Framework (REPDF) currently being prepared by the Department of Communications, Climate Action and the Environment (DCCAE), IWEA will continue to advocate for the preparation of Regional Renewable Energy Strategies to be accelerated and prioritised by the three Regional Assemblies. Only the Regional Renewable Energy Strategies can ensure that a sufficient quantum of land within each region is identified as having wind energy potential sufficient to meet the national requirements.

5 Reference to Wind Energy Development Guidelines

IWEA believes that the new CDP and RES for County Galway should not seek to replace or alter the requirements of the Wind Energy Development Guidelines, currently the subject of a targeted review by the Department of Housing, Planning and Local Government. The 2006 version of these guidelines provided guidance in relation to noise, shadow flicker, setback distance and other project-level design criteria. These, and other design criteria are likely to be updated as a result of the ongoing review of these Guidelines. The new CDP and RES for County Galway should refer to these Guidelines and require future proposed wind energy developments in County Galway to comply with the guidelines of the day. The Department has clearly stated on numerous occasions the 2006 guidelines remain in effect until they are replaced. The new CDP and RES for County Galway need not and should not seek to alter or vary whatever guidance emerges from the Department by way of the targeted review, but should just refer to the Departmental guidelines as setting the project-level design standards that will be expected of any wind farm developments proposed for County Galway.