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Submission on Louth County Development Plan 2021 - 2027

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1 Introduction

The Irish Wind Energy Association ('IWEA') welcomes the opportunity to make this submission to Louth County Council (LCC) on the Draft Louth County Development Plan (CDP) 2021-2027. This submission has been prepared in accordance with section 11(2) of the Planning and Development Act 2000 (as amended) and focuses on strategic issues.

1.1 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 170 members 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 just over 300 operational wind farms[1], 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 system[2]. In 2018 wind energy avoided 3.1 million tonnes of CO_2 and cut €432 million off our fuel import bill[3] 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 (see figure 1), with a combined capacity of approximately 4,200 megawatts (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

[1] It should be noted that IWEA, like the transmission system operator EirGrid, bases these figures on the number of individual wind farm connections. Some larger wind farms may have multiple connections.
[2] https://www.linkedin.com/pulse/wind-generation-ireland-2019-martin-howley/
[3] https://www.seai.ie/publications/Energy-in-Ireland-2019-.pdf

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.

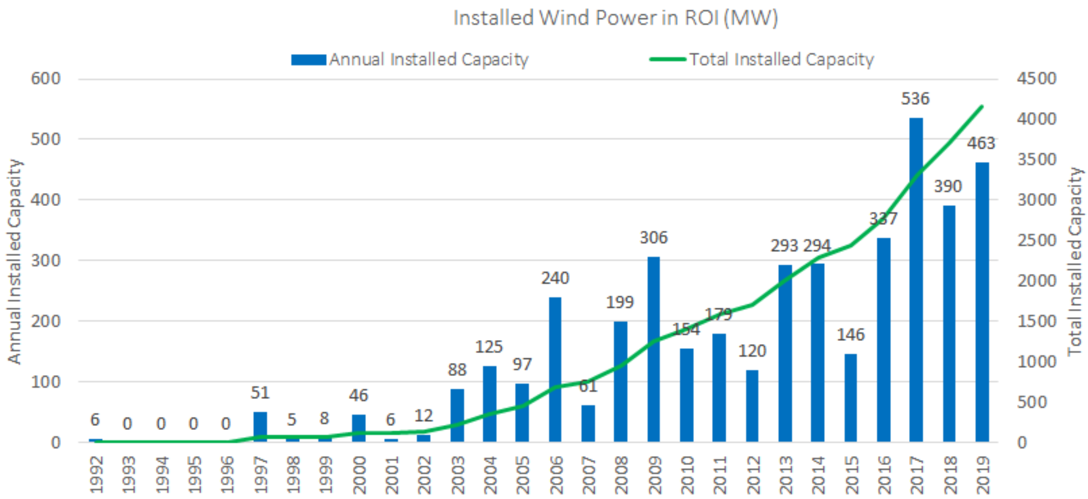

Figure 1: Installed capacity of onshore wind in Ireland since 1992.

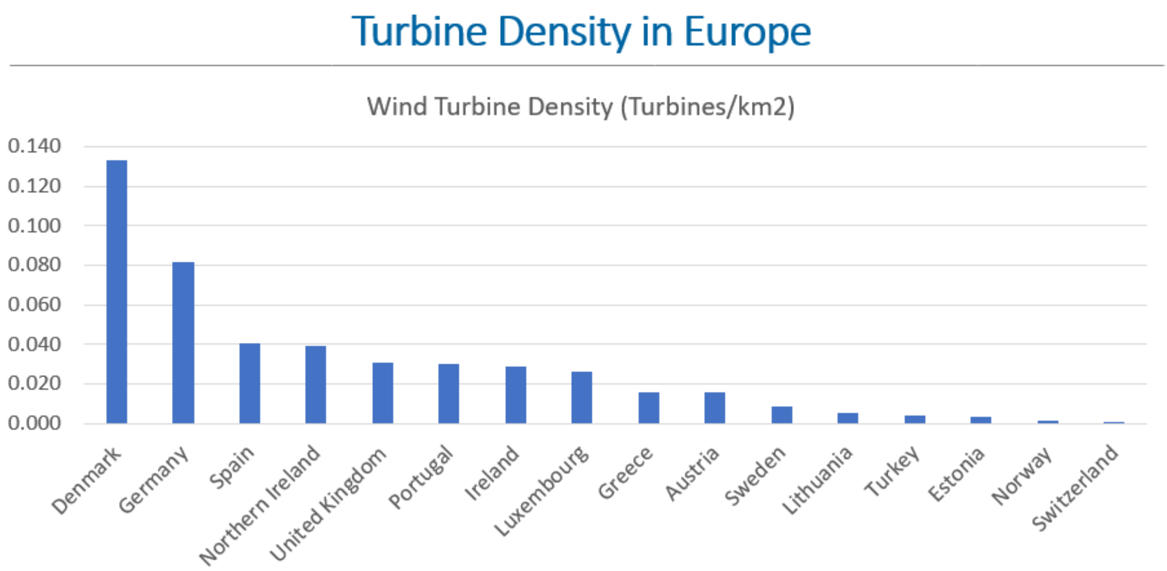

Figure 2: Turbine density in various European countries.

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 Louth CDP develops an Energy Strategy that 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 national 2030 targets.

1.2 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 biomass[4] (Figure 4). The Irish people support clean, renewable, indigenous energy.

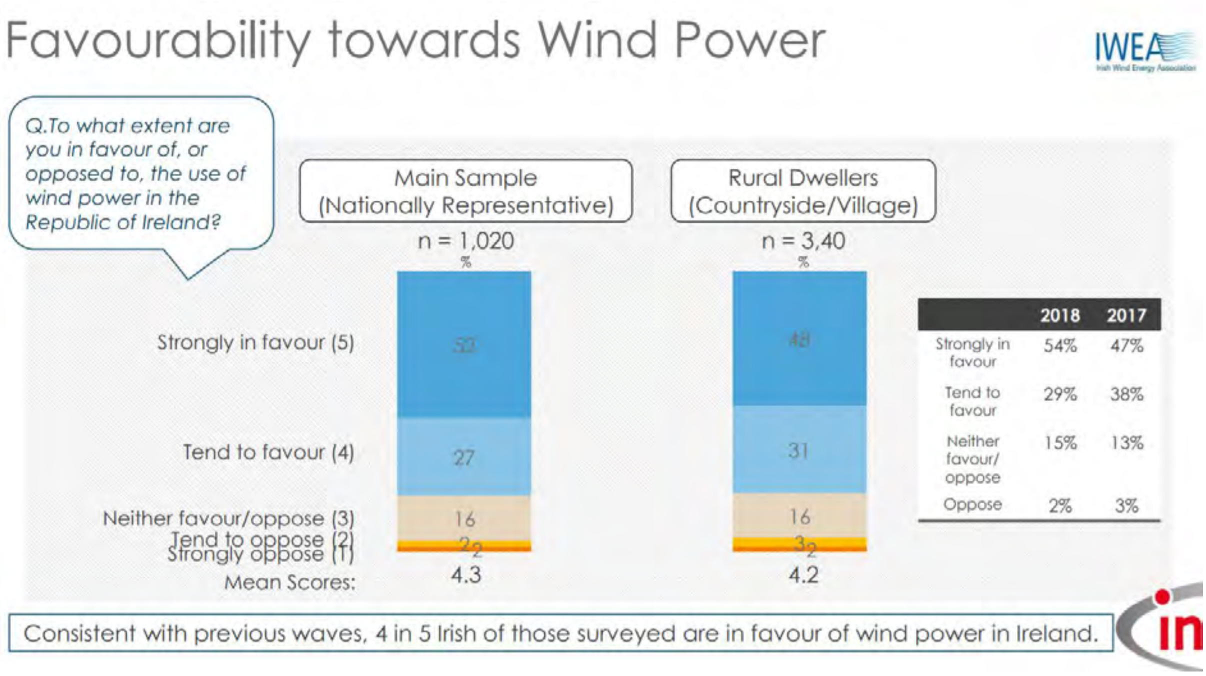

Figure 3: Results from opinion poll carried out by 'interactions' on the attitude of Irish people towards wind energy[5].

[4] ESRI Working Paper 545. October 2016.
[5] https://iwea.com/latest-news/2948-new-poll-confirms-overwhelming-majority-back-wind-energy

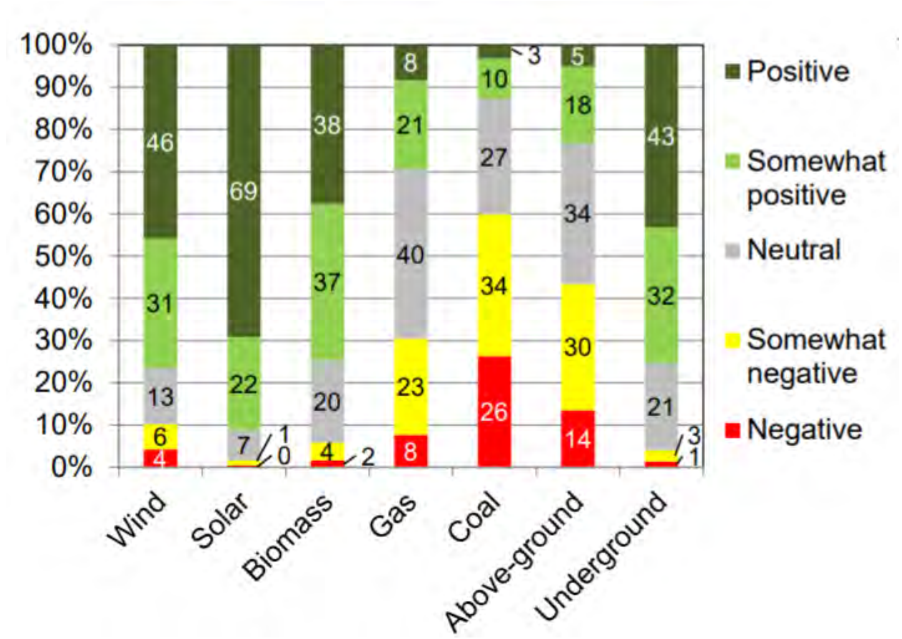

Figure 4: Irish Residents Views of Energy-Related Technologies (Bertsch et al., ESRI, Journal of Energy Policy 2017[6])

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 a new CDP and Renewable Energy Strategy for County Kerry.

[6] http://dx.doi.org/10.1016/j.enpol.2017.04.008

2 National Policy

The National Climate Action Plan (CAP) 2019 has set an ambitious 70% target for renewable energy production by 2030. To meet this target, the amount of electricity generated from renewables will have to be doubled on current figures. Figures 4.4 and 7.5 (see below) of the CAP illustrate Ireland's current and projected renewable electricity production requirements to meet the 70% target. Based on the CAP assumptions, onshore wind will provide the majority of the required electricity yield out to 2030. Taking account of this, LCC and all Local Authorities should be cautious when considering the designation of areas for renewable energy development going forward, so as not to constrain any areas which may have renewable energy potential, particularly for wind generation.

Figure 4.4 Ireland's Decarbonisation Pathway Dashboard to 2030[15]

		NDP	Uptake to meet 2030 targets (Based on MACC analysis)	
	Technology	2030	2025	2030
Electricity	**Total RES in Generation mix[4], %**	**55**	**52**	**70**
	• Onshore wind, GW	~7	~6.5	~8.2
	• Offshore wind, GW	1.8	~1.0	~3.5
	• Solar PV, GW	1.5	~0.2	~0.4
Transport	**Electric Vehicles, #**	**498,000**	**181,500**	**936,000**
	• Passenger EVs, #	355,000	57,000	550,000
	• Passenger PHEVs, #	118,000	94,000	290,000
	• Electric delivery vans, #	19,000	30,000	61,000
	• Electric trucks, #	n.a	0	34,000
	• Electric buses, #	1,250	500-600	1,000-1,200
	Bioethanol blend, Volume	**E10**	**E10**	**E10**
	Biodiesel blend, Volume	**B12**	**B12**	**B12**
Built Environment	**Retrofitted homes[1], cumulative 2021-30, #**	**450,000**	**300,000**	**500,000**
	Electric heating sources, total residential, #	**370,000**	**350,000**	**600,000**
	• New buildings, #	200,000	50,000	200,000
	• Existing buildings, #	170,000	300,000	400,000
	Electric heating sources, total commercial, #	**15,000[3]**	**15,000**	**25,000**
Enterprise	**Emissions, $MtCO_2eq$**	**9**	**8**	**8**
	• Alternative fuels in cement fuel mix, %	N/A	65%	80%
	• CO2-neutral heat generation in food industry[2], %	N/A	~70%	~80%
Agriculture	**Emissions, $MtCO_2eq$**	**21**	**19**	**18**
	• Fertilizers CAN replacement, %	N/A	40%	50%
	• Trailing-shoe slurry spreading, %	N/A	30%	50%
Other (e.g. waste)	**Emissions, $MtCO_2eq$**	**3.2**	**3.2**	**3.2**

"Solar PV, some electrification of buses, and biofuel blending are identified in 2030 the NDP scenario but are not showing as cost-effective in MACC. Despite MACC analysis these technologies may remain in plan given other factors (e.g. exchequer cost, ease of implementation, need for public sector leadership)

1 Retrofit to B2 BER fabric equivalent
2 Includes biomass and electricity
3 Not specified in NDP, estimated based on residential ratio
4 RESS competitive auction determines the final mix

Table 7.5 Potential Metrics to Deliver Abatement in Electricity

Key Metrics	2017	2025 Based on MACC	2030 Based on NDP	2030 Based on MACC
Share of Renewable Electricity, %	~30%[20]	52%	55%	70%
Onshore Wind Capacity, GW	~3.3	6.5	N/A	8.2
Offshore Wind Capacity, GW	NA	1.0	N/A	3.5
Solar PV Capacity, GW	NA	0.2	N/A	0.4
CCGT Capacity, GW	~3.6	5.1	N/A	4.7

The Department of Housing, Local Government and Heritage (DHLGH) Section 28 Guidelines 'Interim Guidelines for Planning Authorities on Statutory Plans, Renewable Energy and Climate Change' (July 2017) clearly set out that it is a specific planning policy requirement under Section 28 (1C) of the Act that, in making a development plan with policies or objectives that relate to wind energy development, the relevant planning authority shall carry out the following three actions:

1. Ensure that overall national policy on renewable energy is acknowledged and documented in the development plan

2. Indicate how the implementation of the development plan will contribute to realising overall national targets on renewable energy and climate change mitigation and in particular wind energy resources (in MW) and,

3. Demonstrate detailed compliance with item no. 2 above with regard to development management objectives and have such development management objectives subject to SEA and AA with regard to likely significant effects on climatic factors in addition to other environmental factors.

To generate 70% of the county's electricity from renewable energy by 2030, the Government's Climate Action Plan requires the installation of 4,000MW of new wind energy developments over the next decade. To put this in context, it took us 20 years to install the first 4,000 MW of wind energy in Ireland and we will now need to add the same amount again in ten years. County Kerry has an important role to play in delivering a large share of the additional 4,000 MW of wind energy that will be required over the next decade.

3 County Louth's Energy Strategy

By initiating the preparation of a new CDP, LCC should take the opportunity to review its renewable energy ambitions at the start of a new decade, in light of quiet different Government climate change, environmental and energy policies. IWEA note that to date, County Louth has contributed 23 MW to our national targets.

Changes to various Government renewable energy policies in recent years has now put planning permission as the critical first stage of any renewable energy project. 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 energy that will be generated. 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. The ambitious targets set out by the government in the National Climate Action Plan 2019 (CAP) should be matched by an ambitions Energy Strategy in the future CDP for the county.

3.1 Renewable Energy Strategy

IWEA welcomes the Council's commitment to "*continue to support and encourage the principle of wind energy development*" within the County and we commend LCC for identifying suitable areas of the county for future wind energy development. We believe this framework will support wind farm developers and eliminate uncertainty surrounding areas un-suitable for renewable energy development at project inception. The inclusion of Map 10.1 outlines those areas within the County that are both "preferred" and "open to consideration" for wind energy development (Chapter 10, Page 22). However, IWEA are disappointed that LCC have not built on the commitments made in the previous CDP (2015-2020) by producing a Wind Energy Strategy that builds on Map 10.1 and the commitments made under policy objectives IU51[7], and IU53[8] of the current draft plan. IWEA would encourage LCC to develop a wind energy strategy for the County in line with current government policies and guidance as outlined above.

[7] **IU 51** *"To encourage the development of wind energy, in accordance with Government policy and have regard to the principles and planning guidance set out in the Department of Housing, Planning and Local Government publications relating to Wind Energy Development and the DCCAE Code of Practice for Wind Energy Development in Ireland and any other relevant guidance which may be issued in relation to sustainable energy provisions during the course of the Plan."*

[8] **IU 53** *"To promote the location of wind farms and wind energy infrastructure in the 'preferred areas' as outlined on Map 10.1, to prohibit such infrastructure in areas identified as 'no-go areas' and to consider, subject to appropriate assessment, the location of wind generating* infrastructure in areas 'open for consideration"

4 Landscape Capacity and Sensitivity

Renewable energy strategies and Landscaper Character Assessments across the Country provide local guidance for the siting of wind farms and traditionally direct 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. However, 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

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 Louth to fulfil the State's onshore wind energy and renewable energy ambitions. The most scenic parts of Louth should still be protected and deemed as no-go areas for wind energy in the county, 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.

4.1 Attrition Rates

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 LCC will need to be making provision for. In the absence of such guidance, IWEA fully support LCC in seeking to identify lands 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 onshore 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.

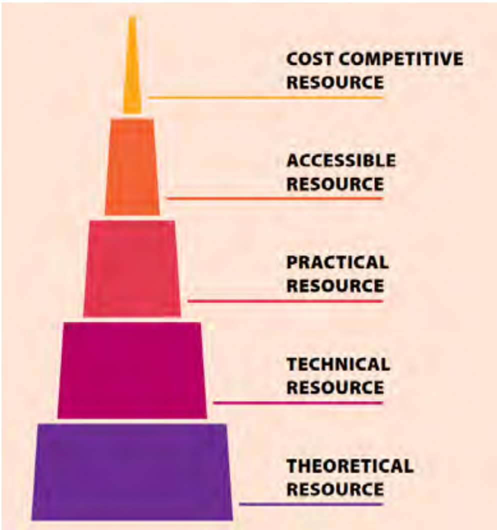

Figure 5: Geographical representation of sieve analysis approach (Methodology for Local Authority Renewable Energy Strategies, SEAI)

The theoretical resource is reduced for many reasons. Even where a site is considered suitable for a wind energy development in a renewable energy strategy, 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 makes 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 4.2 GW of new onshore wind by 2030, it is likely to require a quantum of land sufficient to accommodate 15-20 GW of land to be identified as suitable for wind energy. This is a shared view from IWEA members on likely success rates.

LCC 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. The contents of the landscape character assessment are key to this objective. Policy Objective IU52 states that it is an objective of the Council to:

"To facilitate the development of wind energy in an environmentally sustainable manner ensuring proposals are consistent with the <u>landscape preservation objectives of the Draft Plan</u>, the protection of the natural and built environment and the visual and residential amenities of the area"

The Landscape Character Assessment for Co. Louth, which the above "*landscape preservation objectives"* are outlined within, has not been updated since it was first published in 2002 and pre-dates even the existing 2006 wind energy guidelines which are due to be updated in early 2021. Within this assessment, the number of areas which were deemed as potentially suitable for wind energy development are significantly less than what is considered within the "Areas Suitable for Wind Development" Map 10.1.

The assessment identified nine different landscape character areas within County Louth. However, out of these, seven areas were deemed to have either insufficient windspeeds or inadequate access to the grid network and were deemed to be unsuitable for wind farm development due to these sensitivities.

Since 2002, both national guidance in relation to both grid and renewable energy as well as turbine technology has advanced significantly. In the absence of a National Landscape Character Assessment as outlined in section 8.9[9], we would urge LCC to develop an up-to-date Landscape Character

[9] Section 8.9 Landscape - *The National Landscape Strategy (NLS) 2015-2025 will ensure compliance with the European Landscape Convention, which Ireland ratified in 2002. It provides a high level policy framework and recognises the importance of landscape protection and its interconnectivity with biodiversity and climate change. One of its core objectives is to develop a National Landscape Character Assessment, providing consistency on how to characterise and connect with the landscape, and provide a framework for regional and local landscape character assessments. It is fully supported in both the National Planning Framework (NPF) and the Eastern and Midland Regional Spatial and Economic Strategy (EMRSES).*

Assessment for the County to accompany the Wind Energy Strategy recommended that incorporates the latest guidance and government policies relating to wind energy development.

In addition to above, we would also like to recommend the following considerations for each:

4.2 Wind Resources

We note your use of theoretical ESB wind data from the early 00’s measured at 45m as criteria for considering areas suitable for wind developments within the County. We also note that any areas with windspeeds below 7.5 -8.0 m/s at this height was disregarded as an area which might be considered favourable for windfarm development. It should be noted that this is outdated data which pre-dates even the SEAI’s Wind Atlas, the most up to date version dates from 2013.

Irrespective, wind speed should not be used as a constraint for site suitability or unsuitability at the strategy preparation stage. Current wind turbine technology has evolved to harness the energy from areas with low wind speeds by using larger rotors built at hub heights of 100m and above. This means that a lower number of wind turbines would be needed to make a site commercially viable, leading to less visual impacts on the landscape. Also, even the SEAI Wind Atlas of Ireland referenced above, is 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 the viability of a site’s wind regime.

Therefore, for these two reasons, to exclude areas solely based on 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 potentially be a perfectly viable site.

Recommendation: Wind speed should not be considered as a constraint to wind energy development.

4.3 Transmission Network

Existing or planned electricity grid capacity should not be considered a constraint for the purposes of determining whether areas of Louth are suitable or unsuitable for wind energy development. Grid capacity is a technical 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.

Recommendation: Transmission Network should not be considered as a constraint to wind energy development.

4.4 A Regional Approach

IWEA strongly welcomes the recognition by LCC to implement the objectives of the Regional Spatial and Economic Strategy (RSES) for the Eastern and Midland Region as outlined Policy Objective CA 2 which states LCC will:

"Work to translate, support and implement strategic objectives of the National Planning Framework and the Eastern and Midland Regional Spatial and Economic Strategy to create an enabling local development framework that…supports national climate policy and targets of the Climate Action Plan (as revised and updated) and the delivery of the national transition objective"

IWEA have 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.

Throughout 2018 and 2019, we engaged proactively in the public consultation processes on the RSESs which resulted in the following policy objectives being incorporated into the adopted RSES document for the Southern Regional Assembly:

"RPO 94 Regional Renewable Energy Strategy

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

IWEA will continue to advocate for the preparation of RRESs to be accelerated and prioritised by the three Regional Assemblies (Northern & Western, Eastern & Midland and Southern). Only the RRESs 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 Conclusion

The draft County Development Plan should bring forward progressive policies and objectives that ensure Louth can deliver its share of the national climate change and renewable energy targets intended to decarbonise the Irish economy in line with the National Planning Framework and Climate Action Plan.

IWEA urge LCC to review their draft specifically in relation to its designations for wind energy development within it's Landscape Character Assessment and to produce a Renewable Energy

Strategy for the County which is aligned with best practice approaches and in the knowledge that wind speeds and proximity of grid nodes are simply not constraints to development that should be considered in land-use zoning or designations.

Furthermore, wind energy should be recognised as having the potential to be a significant contributor to the local economy in Louth, facilitating inward investment into the County.