To: variation2cdp@westmeathcoco.ie

To: ebrennan@westmeathcoco.ie

Please find enclosed here submission from the Irish Wind Energy Association (IWEA) on Westmeath County Council's proposal to vary the Westmeath County Development Plan 2014-2020 (Variation No. 2) in relation to Wind Energy Separation Distances.

Proposed Variation

"That Westmeath County Council amend the Westmeath County Development Plan 2014-2020 to provide for the following separation distances between wind turbines and homes:

- ***500 metres**, where height of the wind turbine generator is greater than 25 metres but does not exceed 50 metres.*
- ***1000 metres**, where the height of the wind turbine generator is greater than 50 metres but does not exceed 100 metres.*
- ***1500 metres**, where the height of the wind turbine generator is greater than 100 metres but does not exceed 150 metres.*
- ***More than 2000 metres**, where the height of the wind turbine generator is greater than 150 metre"*.

The IWEA submission is being made by the person named below and has the company's consent and authority to do so.

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EU & National Renewable Energy Commitments

It is important we recognise Ireland's obligation and our need to support renewable energy as set out under EU Directive 2009/28/EC on the Promotion of the Use of Energy from Renewable Sources, which establishes a binding target of 20% of overall EU energy consumption to come from renewable sources by 2020. Ireland's mandatory target under Directive 2009/28/EC is for renewable sources to account for 16% of total energy consumption by 2020. Ireland's National Renewable Energy Action Plan sets out how Ireland intends to achieve this binding national renewable energy target of 16% with renewable electricity (RES-E) to account for 40% of total electricity consumption by 2020.

In Autumn 2014, Ireland agreed to new binding EU 2030 energy targets, which proposes to achieve a 40% reduction in greenhouse gas emissions by 2030 relative to 1990 and a binding EU wide target for renewable energy of at least 27% by 2030. These targets require that renewable energy will be a critical and growing component of Ireland's energy supply to 2020 and beyond. Failure to meet these binding targets will result in EU sanctions.

Climate Change Policy & Targets

At the Paris climate conference (COP21) in December 2015, 195 countries including Ireland adopted the first-ever universal, legally binding global climate deal. The agreement sets out a global action plan to put the world on track to avoid dangerous climate change by limiting global warming to well below 2°C above pre-industrial levels and to limit the increase to 1.5°C. Under the agreement, Governments also agreed on the need for global emissions to peak as soon as possible, recognising that this will take longer for developing countries, and to undertake rapid reductions thereafter in accordance with the best available science. Ireland has signed the Paris Agreement with national ratification expected.

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 degrees in accordance with the COP 21 Agreement.

It is within this context that 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.

Progress towards National Renewable Energy 2020 Targets

As we are now less than 3 years from 2020 we can begin to have a significant amount of confidence in projecting the likely energy demand requirements in 2020 from current energy trends. One overriding and ultimately positive trend is that Ireland's economy is growing at the highest rate in Europe, over 7% GDP growth per annum. The Economic and Social Research Institute (ESRI) noted that from an initial export led growth, there is now an increase in domestic consumption. This will manifest across all areas

of energy use. The energy modelling group at the Sustainable Energy Association of Ireland (SEAI) recently produced a report[1] for policymakers, stating that:

> '*It is evident that an increased deployment rate of all renewable electricity technologies is required in order to meet the 2020 renewable electricity (RES-E) target*'.

The renewable heat (RES-H) sector is estimated to have a shortfall in targets by around 3-5% of the overall 12% RES-H targets by entities such as University College Cork (UCC), ESRI and SEAI. The transport sector is also estimated to have a shortfall on its 10% target (RES-T). To compound this the most recent EirGrid 'All Island Generation Capacity Statement 2016-2025[2]', estimates that between 3.8-4.1GW of wind energy could be required to meet the 2020 RES-E target. To achieve this EirGrid estimates that this would mean an average of about 300MW of extra wind capacity installed per year between now and 2020. The increase in electricity demand is largely being driven by an increased data centre demand (from the likes of Apple, Google, Facebook, Amazon etc. who have a need for 100% renewable electricity) and the current economic recovery in Ireland.

The consequence of potentially not meeting our 16% renewable energy target is that Ireland will either have to purchase renewable credits from other EU states through statistical transfer surplus or alternatively the European Court of Justice will apply fines to Ireland. According to estimates by the Department of Communications, Energy and Natural resources[3] (DCENR) the cost to Ireland of missing the 2020 targets in the range of 1% - 4% will be in the range of €140m and €600m per year of non-compliance.

As recently as 1st of February 2017, the EU commission has confirmed that Ireland is one of only four countries expected to miss its binding 2020 targets[4]. Given that 2030 targets are expected to be set at a more challenging level than 2020, the fines could persist for an extended number of years, and so the total cost to Ireland could run to billions. For comparison, the entire wholesale electricity market has an annual value of around €3bn. Recognising the scale of this risk, the Department of Finance noted in its April 2016 Stability Programme Update[5]:

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[1] https://www.seai.ie/Publications/Statistics_Publications/Energy_Modelling_Group_Publications/Ireland%E2%80%99s-Energy-Targets-Progress-Ambition-and-Impacts.pdf

[2] http://www.eirgridgroup.com/sitefiles/library/EirGrid/Generation_Capacity_Statement_20162025_FINAL.pdf

[3] http://igees.gov.ie/wp-content/uploads/2013/10/Future-Expenditure-Risks-associated-with-Climate-Change-Climate-Finance1.pdf

[4] https://ec.europa.eu/commission/sites/beta-political/files/report-renewable-energy_en.pdf

[5] http://www.finance.gov.ie/sites/default/files/SPU_FINAL_post_Oireachtas_0.pdf

'*There are fiscal risks associated with a legally binding EU Effort Sharing Decision on climate change covering the 2013-2020 period. Ireland is obliged to achieve a 20 per cent Greenhouse Gas emissions reduction (compared to 2005 levels) in certain sectors. Current EPA projections estimate that Ireland will not achieve this reduction and failure to comply may incur costs of hundreds of millions through the purchase of carbon credits until such time as the target is complied with. Similarly, further new costs may arise in the context of a new EU climate and energy framework for the period 2020-2030, which will set new emissions reduction targets*.'

Security of Energy Supply

Ireland is one of the most energy import-dependent countries in the European Union, importing 85% of its fuel in 2014[6]. This makes Ireland particularly vulnerable to future energy crises and price fluctuations given its location on the periphery of Europe. The international fossil fuel market is growing increasingly expensive and is increasingly affected by international politics which can add to price fluctuations. This volatility will be increased as carbon prices increase in the future. The cost of carbon credits is included in all electricity traded, and the price of electricity generated by coal is particularly vulnerable due to its high carbon emissions per unit of electricity generated.

In December 2015, the Government confirmed in their publication of the White Paper 'Ireland's Transition to a Low Carbon Future 2015 – 2030' that '*there will be a substantial increase in the cost of carbon in the short and medium term, through the EU Emissions Trading Scheme'*. Any steps to reduce dependence on imported fossil fuels will add to financial autonomy and stability in Ireland. The White Paper also notes, '*In the longer term, fossil fuels will be largely replaced by renewable sources'*. SEAI has recently warned of our heavy dependence on imported fossil fuels, noting '*In 2014, 15% of our energy came from indigenous resources with renewable energy now starting to make a significant contribution. However, the remaining 85% of our energy requirements came from abroad, costing us more than €15 million every day. This is a lost opportunity in terms of keeping this money here in Ireland and further developing our abundant renewable resources*.'

Competiveness of Wind Energy and Local Benefits

While Ireland has a range of renewable resources, as the White Paper states *'[Onshore Wind] is a proven technology and Ireland's abundant wind resource means that a wind generator in Ireland generates more electricity than similar installations in other countries. This results in a lower cost of support*.'

A 2015 Poyry study 'Future Wind Scenarios and Electricity Market Effect in Ireland' showed that reaching our RES-E target in 2020 would reduce wholesale prices by more than costs of (i) new grid infrastructure, (ii) backup required when the wind doesn't blow and (iii) the subsidies paid to wind generators. Poyry found that meeting the RES-E target would result in a net saving of €43m per year to the Irish economy from 2020. The EU has noted that Ireland has one of the lowest costs of supporting renewables, mainly because onshore wind is on a par with the cost of power from conventional

[6] https://www.seai.ie/Publications/Statistics_Publications/Energy_Security_in_Ireland/Energy-Security-in-Ireland-2015.pdf

generation when a full cost benefit is undertaken. Wind energy brings with it significant local benefits by way of local jobs, rental payments to landowners, rates to county councils and improved infrastructure such as roads.

Specific Comments in relation to Draft Variation No. 2

Draft Variation No. 2 proposes the following:

'*That Westmeath County Council amend the Westmeath County Development Plan 2014-2020 to provide for the following separation distances between wind turbines and homes:*

- ***500 metres**, where height of the wind turbine generator is greater than 25 metres but does not exceed 50 metres.*
- ***1000 metres**, where the height of the wind turbine generator is greater than 50 metres but does not exceed 100 metres.*
- ***1500 metres**, where the height of the wind turbine generator is greater than 100 metres but does not exceed 150 metres.*
- ***More than 2000 metres**, where the height of the wind turbine generator is greater than 150 metre'.*

The Department of the Environment, Heritage and Local Government (DoEHLG) Wind Energy Guidelines, 2006 recommends a guideline setback distance of 500m in relation to noise and shadow flicker. These guidelines are intended to afford adequate residential protection, ensure a consistency of approach throughout the country and to not place undue restrictions on developers which is the stated key objective of the Guidelines. A review of the Wind Energy Guidelines is currently being undertaken. Circular Letter PL 20-13 advised local authorities to defer amending their existing Development Plan policies relating to wind energy until such time as the review of the Wind Energy Guidelines is completed.

Furthermore, planning authorities are required to have regard to guidelines issued under Section 28 of the Planning and Development Act 2000 in the performance of their functions. The Wind Energy Guidelines were issued under Section 28 of the Act and although being reviewed in part they have not been rescinded, withdrawn or updated at the time of writing. Westmeath County Council is therefore acting in direct contravention of its national and regional obligations by proposing revisions to its wind energy policy and proposes separation distances that are grossly out of step with the current Wind Energy Guidelines.

Chapter 10 of the Westmeath County Development Plan (CDP) 2014-2020 sets out clear policy in relation to renewables and wind energy in particular and sets out the following policy measure:

'*P-WIN3: To ensure the siting and development of wind turbines is carried out in accordance with the requirements of the DoEHLG Wind Energy Development Guidelines 2006, and as otherwise amended.*'

Westmeath County Council is acting in direct contravention to this policy measure. It is assumed that the application of the proposed separation distances has not been assessed in a GIS land mapping context in the drafting of proposed Variation No. 2 and therefore the true ramifications of this proposal on wind energy development has not been adequately comprehended. IWEA has carried out its own assessment of the proposed separation distances to demonstrate the serious restriction the proposed Variation No. 2 would have on future wind energy development in County Westmeath. Since the wind energy industry began in Ireland, it is clear that average wind turbines have been substantially greater than 50m tip height with most turbines that have been installed in Ireland for the last 10 years being over double that height. Therefore the assessment focusses on the typical turbine heights namely greater than 100m and greater than 150m. The assessment below only examines the setback distances in relation to dwellings only and does not take into account the significant amount of other constraints associated with wind farm development including in particular the Natura sites and the towns/villages, rivers/lakes/streams. Consideration should also be given to flood plain analysis, the impact of existing communications infrastructure, aviation constraints and the suitability of the local road infrastructure which is not currently catered for in the analysis. In reality the area available for development when all such matters are taken into consideration will be considerably less than the figures shown below.

Figure 1 illustrates that in the case of the **500 metre separation distance**, **27.5%** of the county (areas indicated in green) will be left available for wind energy development.

Figure 1 **Impact of 500m Separation Distance**

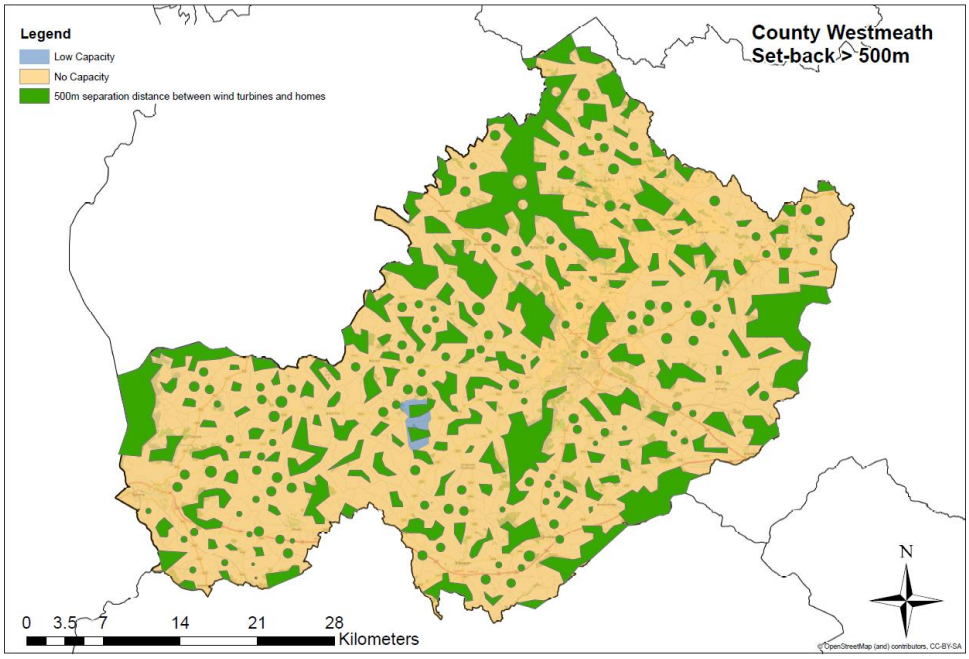


Figure 2 shows that when a **1000 metre separation distance** is applied, **5.3%** of the county (areas indicated in green) will be left available for wind energy development.

Figure 2 **Impact of 1000m Separation Distance**

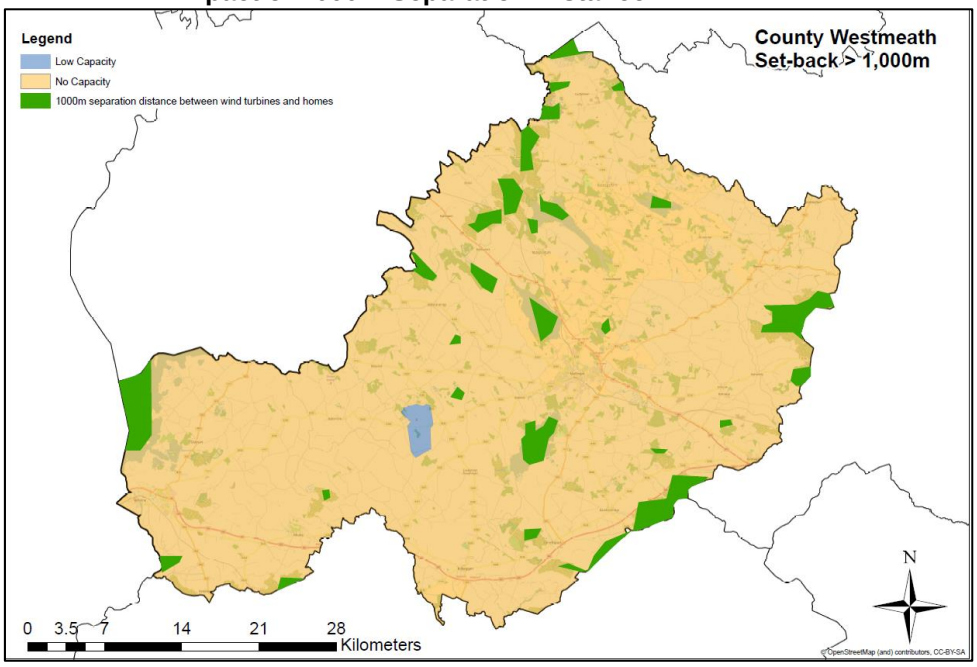


Figure 3 illustrates that in the case of the **1500 metre separation distance**, **1.5%** of the county (areas indicated in green) will be left available for wind energy development.

Figure 3 **Impact of 1500m Separation Distance**

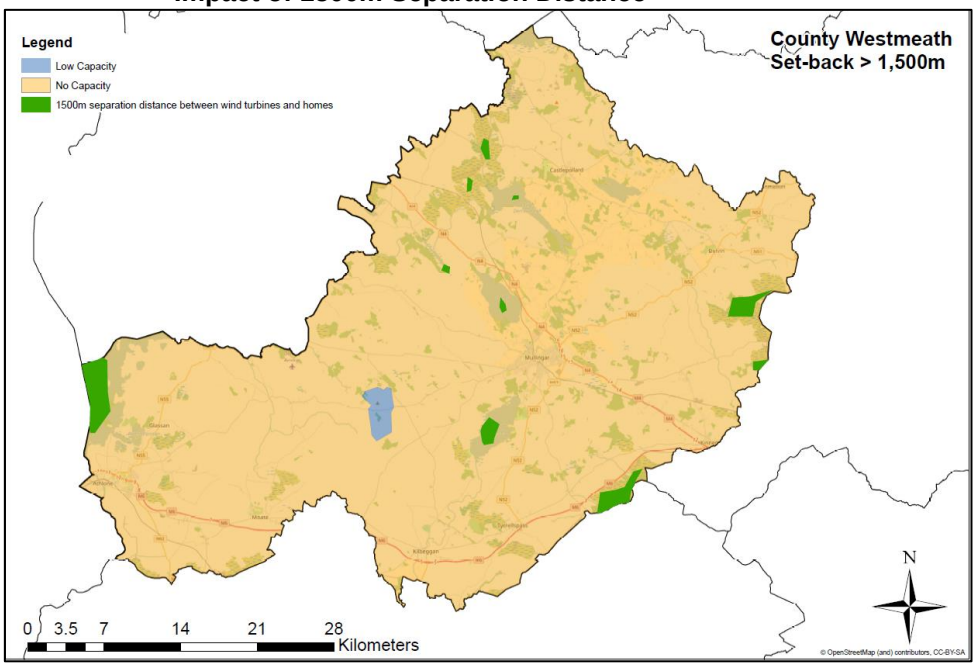
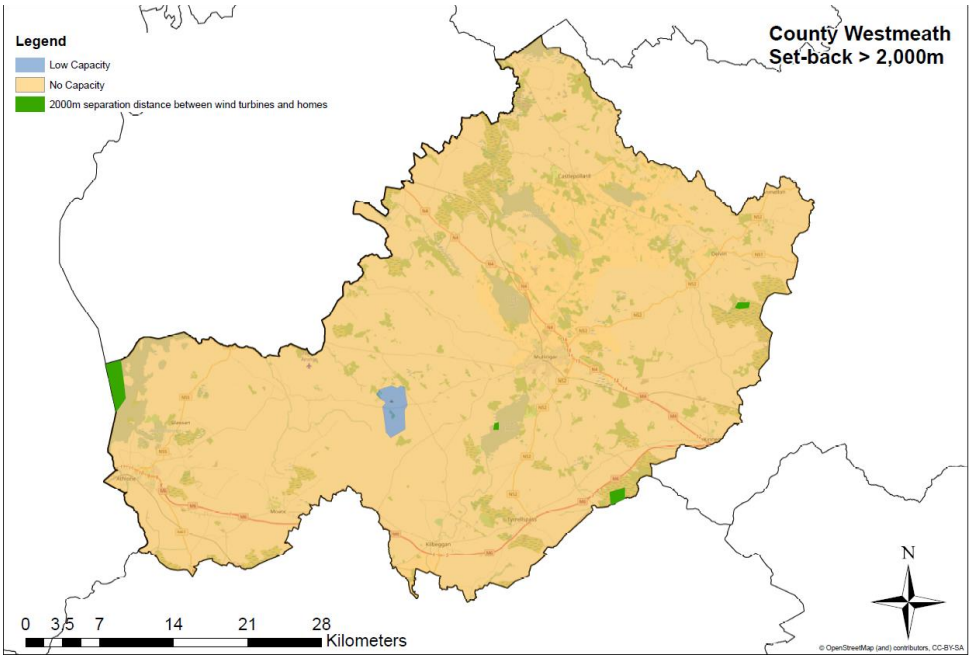


Figure 4 shows that when a separation distance of **more than 2000 metres** is applied, **0.4%** of the county (areas indicated in green) will be left available for wind energy development.

Figure 4 Impact of more than 2000m Separation Distance



In terms of land availability 500m is a critical number after which the percentage availability drops off significantly as shown in Figures 2, 3 and 4.

It is important to note that the analysis in Figures 1-4 is based on separation distance only and does not take into consideration specific Westmeath County Council policy regarding the direction of large scale energy production projects in the form of wind farms onto cutover cutaway peatlands in the county as follows:

> *'P-WIN2: To strictly direct large-scale energy production projects, in the form of Wind Farms, onto cutover cutaway peatlands in the county, subject to environmental, landscape, habitats and wildlife protection requirements being addressed. In the context of this policy, industrial scale/large-scale energy production projects are defined as follows:*
>
> *Projects that meet or exceed any of the following criteria:*
> - *Height: over 100m to blade tip, or*
> - *Scale: More than five turbines*
> - *Output: Having a total output of greater than 5MW'*

Taking the preferred areas for large scale energy production projects into consideration i.e. cutover cutaway peatlands, the already minute land areas identified for separation distances greater than 500m would be reduced even further as follows:

- In the case of the **more than 2000m separation distance**, 0.4% of the county left available for wind energy development will be reduced to **0.1%**.
- In the case of the **1500 metre separation distance**, 1.5% of the county left available for wind energy development will be reduced to **0.5%**;
- In the case of the **1000 metre separation distance**, 5.3% of the county left available for wind energy development will be reduced to **1.9%**; and
- In the case of the **500 metre separation distance**, 27.5% of the county left available for wind energy development will be reduced to **5.3%**.

It is worth pointing out that these significantly reduced land areas do not take into consideration other constraints such as availability of a viable wind resource, land and suitable site availability, environmental buffers (in particular the Natura sites), landscape constraints for sensitive landscape, Flooding potential, aviation impacts, the suitability of the surrounding road infrastructure etc which when applied would in fact be even more reduced if not towards zero for distances greater than 500m when all constraints are taken into account.

The Strategic Environmental Assessment (SEA) Screening Report undertaken for the propose Variation No. 2 states '*The Variation will further restrict the potential for wind energy development in the County*' and also states '*that due to the generally low lying character of Westmeath and the absence of significant backdrops for wind turbines, the issue of visual impact is considered significant'*. IWEA are concerned at the highly negative approach to wind energy development in the county. Westmeath County Council has not included any evidential basis for proposed Variation No. 2 or included any spatial or geographical analysis to indicate whether there is any land, of sufficient scale that exists that can comply with this requirement and at the same time maximise the contribution that County Westmeath can make in ensuring that wind energy can make in achieving national renewable energy targets. On a review of planning applications for wind energy developments in County Westmeath back to the year 2000, IWEA can find only one single application for a wind energy development consisting of more than 1 no. turbine (Planning Ref: 08/2174 and ABP Ref: 205586).

The proposed Variation No.2 imposes separation distances which will effectively halt wind energy development of any viable scale in County Westmeath and therefore fails to respond to overall Government policy on renewable energy. In this scenario, the Variation would be in gross violation of the Section 28 Guidelines.

As Westmeath County Council are aware, in 2014 a Ministerial Direction was issued in relation to a previous proposal by Westmeath County Council in relation to setback distances of large scale wind

energy production projects from residential buildings. The Westmeath CDP 2014-2020 was subsequently amended to reflect the Ministerial Direction. IWEA wish to query why a similar approach is now being taken and is once again setting an unwelcome precedent for improper forward planning in County Westmeath. It is worth pointing out Roscommon County Council in 2014 and Donegal and Roscommon County Councils in 2016 all sought to amend the current 500m separation distance. All of these proposals had a Ministerial Direction issued against them with proposals subsequently removed.

As set out within Section 3.1 of the Wind Energy Guidelines, there is a requirement for a reasonable balance to be achieved between Government Policy and Local Proper Planning considerations as follows:

> *'The development plan must achieve a reasonable balance between responding to overall Government Policy on renewable energy and enabling the wind energy resources of the planning authority's area to be harnessed in a manner that is consistent with proper planning and sustainable development.'*

Planning authorities are required to have regard to national policy and guidance when considering matters such as separation distances and should not seek to set individual setbacks which effectively restrict development in their individual functional areas.

IWEA strongly reject the proposed Variation No. 2. It is clearly uninformed and lacks justification with no quantitative study presented in the proposed Variation. The proposal contravenes national and government policy and guidance, Circular Letter PL20-13 and is not in line with the policy measures of the Westmeath CDP 2014-2020, specifically P-WIN3 which states the Council will '*ensure the siting and development of wind turbines is carried out in accordance with the requirements of the DoEHLG Wind Energy Development Guidelines 2006, and as otherwise amended*.'