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Appendix A- Potential Areas of Search for Wind Farm Developments

Joint Local Development Plan

Anglesey and Gwynedd



CYNGOR SIR
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ISLE OF ANGLESEY
COUNTY COUNCIL

JOINT LOCAL DEVELOPMENT PLAN ANGLESEY & GWYNEDD

Appendix A - Potential Areas of Search for Wind Farm Developments

1.0 Background

- 1.1 In 2012 ARUP undertook work on ‘Scoping Renewable Energy Opportunities in Gwynedd’ (DC.012), and similar work was undertaken on Ynys Môn in 2013 which led to the ‘Renewable Energy Capacity Assessment for Anglesey’ (DC.013).
- 1.2 Both studies used the Welsh Government Practice Guidance: Planning for Renewable and Low Carbon Energy – A Toolkit for Planners (June 2010). In addition where appropriate it also used DECC/SQW Energy Guidance, Renewable and Low-carbon Energy Capacity Methodology: Methodology for the English Regions (Jan 2010) (A copy of this document can be viewed at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/226175/renewable_and_low_carbon_energy_capacity_methodology_jan2010.pdf). Whilst this was written as guidance for English Regions, some of the methodology was transferrable at a local scale and was applicable in Wales.
- 1.3 These studies identified 9 potential areas in Gwynedd and 6 potential areas in Anglesey.
- 1.4 In December 2015, the Minister for Natural Resources in Wales wrote to Planning Lead Members to inform them of the Changes to Section 12 of Planning Policy Wales (PPW). The letter also urged authorities to formulate policies (including allocations of areas of search) for local authority scale renewable energy schemes. It stated that:
- “The designation of such areas would show leadership at the local level; give certainty to the renewable energy industry in making investment decisions; and, through the LDP consultation process, would give communities a say as to where renewable energy developments should be located. By designating these areas, developments can be guided to the most appropriate locations.”
- 1.5 In light of this the Councils have undertaken this report to further evaluate the potential wind clusters identified in the ARUP reports to ascertain whether or not they should be allocated within the Joint Local Development Plan (JLDP) as areas of search.

2.0 Methodology

- 2.1 The following steps have been undertaken to further assess the potential wind cluster areas identified in the Gwynedd (DC.012) and Anglesey (DC.013) studies:
- Due to the Welsh Government producing an updated ‘Planning for Renewable and Low Carbon Energy – A Toolkit for Planners’ in 2015 the first step is to compare the recommended methodology for wind energy resource in this

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document with that contained within the 2010 toolkit. This is to ensure that the findings of the ARUP reports are still valid.

- Due to the extremely special environmental assets that have been acknowledged and designated nationally and internationally the Councils commissioned work on 'Landscape Sensitivity and Capacity Study' (2014) (DC.020). This evaluated the capacity of different Landscape Character Areas to accommodate different types of development. One category evaluated was in relation to Wind Turbine developments. Therefore the second step of the report was to assess the potential areas identified within the ARUP report against the findings of the Landscape Sensitivity and Capacity Study in relation to wind energy capacity in these areas.

3.0 Step 1 – Comparison of 2010 and 2015 Toolkit

3.1 The ARUP reports states that the assessment undertaken was based upon the use of 2MW turbines. This is in line with the guidance in the 2010 toolkit which in Project Sheet B Wind energy resource Step 1 'Decide on typology of wind turbine to use for the assessment', states:

"...At the time of writing this toolkit, a typical size of onshore wind turbine, and the one we propose you use for this assessment is as follows:

- Rated output: 2MW
- Hub height: 80m
- Rotor diameter: 80M
- Height to blade tip at highest point ("tip height"): 120m..."

3.2 The revised toolkit of 2015 uses exactly the same typology within its Project Sheet B for Step 1 typology of wind turbine.

3.3 This confirms therefore that the assessment undertaken by ARUP is still in accordance with the 2015 toolkit guidance.

4.0 Step 2 – Evaluation Against the Landscape Sensitivity and Capacity Study

4.1 The Landscape Sensitivity and Capacity study was commissioned by the Gwynedd and Ynys Môn Councils and Snowdonia Park Authority, in response to the growing pressure on the landscape, to help protect the most sensitive and distinctive landscapes from inappropriate development and to encourage a positive approach to development in the right location and at an appropriate scale. In relation to renewable energy development it assessed wind energy and field scale Solar PV Energy.

4.2 The study provides an evidence based assessment of the relative sensitivity and capacity of the Isle of Anglesey, Gwynedd and Snowdonia National Park landscapes to accommodate each of these types of development at varying scales.

4.3 The methodology involved assessing individual Landscape Character Areas against information within 24 LANDMAP layers, other desk top studies undertaken in the

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area and involved site visits to back up and moderate the findings. This then led to the formulation of strategies for development within each landscape character area (LCA) which includes an indicative overall capacity of the LCA to accommodate these types of developments. The Landscape Sensitivity and Capacity Study (2014) (DC.020) provides the detailed methodology undertaken for this work.

- 4.4 The Landscape Sensitivity and Capacity Study (2014) produced a typology table for the different developments assessed. In relation to wind turbines the following typologies were identified and the report clarified that a proposal will normally be considered as falling within the category that represents the biggest type for which it qualifies:

Table 1: Wind Energy Development Typologies

Wind Energy Typology	Indicative Output (broad output category)	Supplementary Criteria (meets one or more of the criteria) (determines whether this typology applies or whether a larger one does)
DOMESTIC	Under 10kW	<ul style="list-style-type: none"> • Single turbine applications • Turbine up to 15m to blade tip • Turbine may be roof-mounted or pole-mounted
MICRO	under 50kW	<ul style="list-style-type: none"> • Single or twin turbine applications • Turbine up to 20m to blade tip
SMALL	under 5MW	<ul style="list-style-type: none"> • Turbines up to 3 in number • Turbines up to 50m to blade tip • Viewed as a small group
MEDIUM	over 5MW and up to 25MW	<ul style="list-style-type: none"> • Turbines up to 9 in number • Turbines up to 80 metres to blade tip • Viewed as a large group
LARGE	over 25MW	<ul style="list-style-type: none"> • Turbines over and including 10 in number • Turbines up to 110 metres to blade tip • Viewed as a large scale wind farm
VERY LARGE	Over 25MW	<ul style="list-style-type: none"> • Turbines over and including 10 in number • Turbines over 110 metres to blade tip • Viewed as a very large scale wind farm

- 4.5 Based upon the guidance within the 2015 Toolkit in relation to the typology of wind turbine to be considered under Project Sheet B: Wind energy resource being up to 120 metres to blade tip this would be categorised as VERY LARGE based upon the Landscape Sensitivity and Capacity study typology.

- 4.6 The following tables identifies within which Landscape Character Area each identified site falls into as well as the Overall Sensitivity and Indicative Overall Capacity and finally Commentary/ Recommendation for each individual area identified in the ARUP report:

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Table 2: Gwynedd Potential Wind Cluster Areas				
Wind Cluster Number	Landscape Character Area	Landscape Sensitivity & Capacity Assessment		Comments / Recommendation
		Overall Sensitivity (Wind energy development)	Indicative Overall Capacity	
1	G07 – Western Llŷn	High	Typically no capacity for wind energy developments (with the exception of very infrequent domestic scale development which should relate well to existing settlement / buildings).	Not a suitable area to be allocated as an area of search for wind energy development.
2	G07 Western Llŷn	High	Typically no capacity for wind energy developments (with the exception of very infrequent domestic scale development which should relate well to existing settlement / buildings).	Not a suitable area to be allocated as an area of search for wind energy development.
3	G06 – Llŷn North Coast	Very High	Typically no capacity for wind energy developments (with the exception of very infrequent domestic scale development which should relate well to existing settlement / buildings).	Not a suitable area to be allocated as an area of search for wind energy development.
4	G08 – Pwelli – Criccieth Coast	Medium-High	<p>Within the areas that contribute to the setting of the SLAs and the National Park, there is typically no capacity for wind energy development (with the exception of very infrequent domestic scale, development which should relate well to existing settlement / buildings).</p> <p>Outside these areas there may be limited capacity for micro scale developments which could typically comprise single turbines up to 20 m to blade tip height; however, any new development should be carefully sited to avoid cumulative effects with existing vertical modern developments.</p>	Not a suitable area to be allocated as an area of search for wind energy development.
5	G09 - Porthmadog	High	There is typically no capacity for wind energy development (with the exception of very infrequent domestic scale,	Not a suitable area to be allocated as an area of search for wind

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			development which should relate well to existing settlement / buildings).	energy development.
6	G03 – Llanberis - Bethesda	Medium-High	<p>Within the SLA (and all areas that contribute to its setting and the settings of the National Park), there is typically no capacity for wind energy development (with the exception of very infrequent domestic scale, development which should relate well to existing settlement / buildings).</p> <p>Outside these areas there may be limited capacity for micro scale developments which could typically comprise single turbines up to 20 m to blade tip height; however, any new development should be carefully sited to avoid cumulative effects with existing vertical modern developments.</p>	Not a suitable area to be allocated as an area of search for wind energy development.
7	S08 – Dyffryn y Ddwryd	Medium-High	Typically no capacity for wind energy developments (with the exception of a limited number of domestic to micro scale wind energy developments which should relate well to existing settlement / buildings and which are outside of the ELDP Area of Natural Beauty and ELDP Undeveloped Coast).	Not a suitable area to be allocated as an area of search for wind energy development.
8	G12 –Llandderfel	Medium-High	There is typically no capacity for further wind energy development (with the exception of very infrequent domestic scale, development which should relate well to existing settlement / buildings).	Not a suitable area to be allocated as an area of search for wind energy development.
9	G15 – Tywyn	Medium-High	Typically no capacity for wind energy development (with the exception of very infrequent domestic scale, development which should relate well to existing settlement	Not a suitable area to be allocated as an area of search for wind energy development.

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		Overall Sensitivity (Wind energy development)	Indicative Overall Capacity	
			/ buildings).	

Table 3: Ynys Môn Potential Wind Cluster Areas				
Wind Cluster Number	Landscape Character Area	Landscape Sensitivity & Capacity Assessment		Comments / Recommendation
		Overall Sensitivity (Wind energy development)	Indicative Overall Capacity	
1	A15 Afon Cefni	Medium-High	Typically no capacity for wind energy developments (with the exception of very infrequent domestic scale development which should relate well to existing settlement/buildings).	Not a suitable area to be allocated as an area of search for wind energy development.
2	A17 – West Central Anglesey	Medium	<p>Within the AONB and SLAs (and all areas that contribute to their setting there is typically no capacity for wind energy development (with the exception of very infrequent domestic scale, development which should relate well to existing settlement / buildings).</p> <p>Outside the AONB and SLAs it is considered there may be some capacity for further micro to small scale developments which could typically comprise single or small clusters of turbines (up to 3 in number) up to 50 m to blade tip height. Any new development should be carefully sited to avoid cumulative effects with existing turbines and wind</p>	The typology used in relation to the Landscape Sensitivity and Capacity Study does also refer to Indicative Output. However paragraph 2.45 of the report does state that this is included for reference only and that this information should not be used to determine which typology applies to proposed wind energy developments. It is the impact based upon the number and height of turbines which has been

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Table 3: Ynys Môn Potential Wind Cluster Areas				
Wind Cluster Number	Landscape Character Area	Landscape Sensitivity & Capacity Assessment		Comments / Recommendation
		Overall Sensitivity (Wind energy development)	Indicative Overall Capacity	
			farms and other vertical modern developments.	<p>assessed within the study. Therefore consideration should be against the areas capacity to accommodate turbines up to 120 metres to 'tip height' as per the methodology in the toolkit.</p> <p>Not a suitable area to be allocated as an area of search for wind energy development.</p>
3	A12 – East Central Anglesey	Medium-High	<p>Within the AONB and SLAs (and all areas that contribute to their setting), there is typically no capacity for wind development (with the exception of very infrequent domestic scale, development which should relate well to existing settlement / buildings).</p> <p>Outside the AONB and SLAs it is considered there may be limited capacity for further micro to small scale well sited developments which could typically comprise single turbines up to 20 m to blade tip height.</p>	Not a suitable area to be allocated as an area of search for wind energy development.
4	A18 – Valley Air Field Environs	Medium	Within the AONB and SLAs (and all areas that contribute to their setting), there is typically no capacity for wind energy	Not a suitable area to be allocated as an area of search for wind

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Wind Cluster Number	Landscape Character Area	Landscape Sensitivity & Capacity Assessment		Comments / Recommendation
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			<p>development (with the exception of very infrequent domestic scale, development which should relate well to existing settlement / buildings).</p> <p>Outside the AONB and SLAs it is considered there may be limited capacity for micro to small scale well sited developments which could typically comprise single turbines up to 20 m to blade tip height.</p>	energy development.
5	A17 – West Central Anglesey	Medium	<p>Within the AONB and SLAs (and all areas that contribute to their setting there is typically no capacity for wind energy development (with the exception of very infrequent domestic scale, development which should relate well to existing settlement / buildings).</p> <p>Outside the AONB and SLAs it is considered there may be some capacity for further micro to small scale developments which could typically comprise single or small clusters of turbines (up to 3 in number) up to 50 m to blade tip height. Any new development should be carefully sited to avoid cumulative effects with existing turbines and wind farms and other vertical modern developments.</p>	The typology used in relation to the Landscape Sensitivity and Capacity Study does also refer to Indicative Output. However paragraph 2.45 of the report does state that this is included for reference only and that this information should not be used to determine which typology applies to proposed wind energy developments. It is the impact based upon the number and height of turbines which has been assessed within the study. Therefore consideration should be against the areas capacity to accommodate turbines up to 120 metres to 'tip height' as per the

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Table 3: Ynys Môn Potential Wind Cluster Areas				
Wind Cluster Number	Landscape Character Area	Landscape Sensitivity & Capacity Assessment		Comments / Recommendation
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				<p>methodology in the toolkit.</p> <p>Not a suitable area to be allocated as an area of search for wind energy development.</p>
6	A08 – Dulas Bay Hinterland	Medium-High	<p>Within the AONB and SLA (and all areas that contribute to their setting), there is typically no capacity for wind energy development (with the exception of very infrequent domestic scale, development which should relate well to existing settlement / buildings).</p> <p>Outside the AONB and SLAs it is considered there may be limited capacity for further mirco scale developments which could typically comprise single turbines up to 20 m to blade tip height; however, any new development should be carefully sited to avoid visual clutter / cumulative effects with existing wind farms and other vertical modern developments.</p>	Not a suitable area to be allocated as an area of search for wind energy development.

5.0 Conclusion

- 5.1 In light of the findings in section 4.0 above none of the potential areas identified within the ARUP report should be allocated as areas of search for wind cluster development in the JLDP.