

APPENDIX 1

**PERMITTED DEVELOPMENT**

(4 pages)

## APPENDIX 1: PERMITTED DEVELOPMENT

### Content

1. Domestic Renewable Energy Developments – Permitted development
2. Non-Domestic Renewable Energy Developments- Permitted development

### 1. Domestic Renewable Energy Developments.

#### Solar Panels

The fixing of solar panels to the roofs of domestic properties is deemed to be permitted development, provided they fulfil the following requirements:

- *Panels should not project above the ridgeline and should project no more than 20cm perpendicular from the surface of the roof or wall.*
- *On flat roofs the panels may not be installed within 1m of the external edge of the roof or protrude more than 1m above the plane of the roof;*

#### Free Standing PV and Solar Thermal Panels

A single free standing (stand-alone) PV and solar thermal panel is also permitted development provided:

- *It is located no closer than 5m to a highway and does not exceed 2m in height anywhere within 5m of the property boundary, or 4m in height elsewhere.*
- *The total surface area of the panels must not exceed 9m<sup>2</sup> and the array (including any housing) must not exceed 3m in any dimension.*

#### Heat Pumps

The installation of an air source heat pump (ASHP) on domestic premises is considered to be permitted development, provided the limits and conditions listed below are met. These permitted development rights apply to the installation, alteration or replacement of an air source heat pump on a house or block of flats, or within the curtilage of a house or block of flats, including on a building within that curtilage. A block of flats must consist wholly of flats (e.g. should not also contain commercial premises).

Limits to be met:

- *Both ground and water source heat pumps anywhere within the boundary of your house or flat.*
- *Air source heat pumps are allowed providing that noise complies with the MCS Planning Standard 020 ([www.microgenerationcertification.org](http://www.microgenerationcertification.org)),*
- *the compressor (including any housing) does not exceed 1m<sup>3</sup>,*
- *any part of the ASHP is not installed within 3m of the boundary of the curtilage,*
- *and the ASHP is used solely for heating purposes.*

#### Domestic-scale CHP and Domestic Wood-fuelled Heating

Planning permission is not normally needed when installing a micro-combined heat and power system in a house if the work is all internal. If the installation requires a flue outside, however, it will normally be permitted development provided the following conditions are met.

However if the building is listed, or in a designated area, it is advisable to check with the Local Authority before a flue is fitted. Consent is also likely to be needed for internal alterations

- *Flues on the rear or side elevation of the building are allowed to a maximum of 1m above the highest part of the roof.*
- *In a conservation area or in a World Heritage Site the flue should not be fitted on the principal or side elevation if it would be visible from a highway.*

Planning permission would not be required for the installation of a domestic woodfuel system where the flue would utilise an existing chimney. If the installation requires an external flue, however, it will normally be permitted development provided certain conditions are met

- *Flues on the rear or side elevation of the building are allowed to a maximum of 1m above the highest part of the roof.*
- *In a conservation area or in a World Heritage Site the flue should not be fitted on the principal or side elevation if it would be visible from a highway.*

If the project also requires an outside building to store fuel or related equipment the same rules apply to that building as for other extensions and garden outbuildings

### **Wind Turbines**

The development of any stand-alone wind turbine must comply with MCS Planning Standards 020.

- *Only the first installation of stand-alone turbine would be permitted development, and only if there is no existing air source heat pump on a building or within the curtilage of that property. Additional wind turbines or air source heat pumps at the same property requires an application for planning permission.*
- *the highest part of the stand alone wind turbine (including blades) should not exceed 11.1m in height and the lowest part of the turbine blades must be at least 5m above ground level;*
- *the turbine is sited so the separation distance from the turbine and any site boundary is at least the tip height plus 10% (e.g. a 10 metre high turbine would need to be 11 metres (10m + 1m) away from the boundary).*
- *the swept area of the blades of the stand alone wind turbine must not exceed 9.6m<sup>2</sup>;*
- *a stand-alone wind turbine may not be installed on safeguarded land or which is within an Area of Outstanding Natural Beauty, a World Heritage Site or a Site of Special Scientific Interest or within the curtilage of a listed building or on a site designated as a scheduled monument*
- *within a conservation area, the stand alone wind turbine must not be visible from a highway which bounds the curtilage of the dwellinghouse.*

- *Cannot be located on safeguarded land – need to check the Aviation Safeguarding Toolkit (see, <http://aviationtool.planningportal.gov.uk/>)*

In all other cases wind turbines will require planning permission.

## **2. Non-Domestic Renewable Energy Developments**

### **Solar panels**

The fixing of solar panels to the roofs of non-domestic properties is deemed to be permitted development, provided they fulfill the following requirements:

- *Panels should not project above the ridgeline and should project no more than 20cm perpendicular from the surface of the roof or wall.*
- *The panels do not increase the height of the building (excl chimneys or vent housings) more than 1m*
- *The panels are not installed within 1m of the edge of the roof.*

On a building on article 1(5)\* land or on land within a World Heritage Site there are no permitted development rights for PV or solar thermal equipment to be installed on a wall or roof slope which fronts a highway;

There are no permitted development rights if the PV or solar thermal equipment would be installed on a wall or roof slope which fronts a highway; on a building in the curtilage of a listed building; or installed on a site designated as a scheduled monument

\*‘Article 1(5) land’ - this is land within a National Park, the Broads, an area of outstanding natural beauty, an area designated as a conservation area, and land within World Heritage Sites.

### **Free Standing PV and Solar Thermal Panels**

A single free standing (stand-alone) PV and solar thermal panel is also permitted development provided:

- *Less than 4m in height.*
- *More than 5m from the boundary of the curtilage.*
- *The panels are not installed on the site of a scheduled monument, on or within the curtilage of a listed building, or fronting the highway within a building conservation area.*
- *It is located no closer than 5m to a highway and does not exceed 2m in height anywhere within 5m of the property boundary, or 4m in height elsewhere.*
- *The total surface area of the panels must not exceed 9m<sup>2</sup> and the array (including any housing) must not exceed 3m in any dimension.*

On article 1(5)\* land or on land within a World Heritage Site there are no permitted development rights if the PV or solar thermal equipment would be installed so that it would be visible a highway.

There are no permitted development rights if the panels would be installed within the curtilage of a listed building; or installed on a site designated as a scheduled monument.

\*'Article 1(5) land' - this is land within a National Park, the Broads, an area of outstanding natural beauty, an area designated as a conservation area, and land within World Heritage Sites.

### **Ground Source Heat Pump**

Ground Source Heat Pumps

- *Excavation less than 0.5ha*
- *Limited to one installation*

There are no permitted development rights if the ground source heat pump would be installed within the curtilage of a listed building; or installed on a site designated as a scheduled monument.

### **Water Source Heat Pump**

Water Source Heat Pumps are permitted within the curtilage of a building if:

- *The total area covered by the water source heat pump is less than 0.5ha*

### **Flue for a Biomass Boiler, Flue for a Combined Heat & Power Unit (CHP) if:**

- *Less than 45kW thermal capacity.*
- *Less than the height of a replaced flue or less than 1m above the height of the building, whichever is highest.*

On a building on article 1(5)\* land or on land within a World Heritage Site there are no permitted development rights for a flue installed on a wall or roof slope which fronts a highway;

There are no permitted development rights for flues installed on the site of a scheduled monument, on or within the curtilage of a listed building, or fronting the highway within a building conservation area.

\*'Article 1(5) land' - this is land within a National Park, the Broads, an area of outstanding natural beauty, an area designated as a conservation area, and land within World Heritage Sites.

**Full details are set out in the Town and Country Planning (General Permitted Development) (Amendment) (Wales) Order 2012.**

APPENDIX 2

# **CONWY & DENBIGHSHIRE LANDSCAPE SENSITIVITY & CAPACITY ASSESSMENT FOR WIND ENERGY DEVELOPMENTS**

(200 pages)

Executive summary only attached.

For full document, please see Denbighshire website (LDP pages - Planning and Building Regulations>Local Development Plan>Visit the LDP website>Supplementary Planning Guidance)

# **Denbighshire Local Development Plan 2006 – 2021**

**Appendix to draft RENEWABLE ENERGY  
SUPPLEMENTARY PLANNING GUIDANCE**

## **Landscape Sensitivity and Capacity Assessment for Onshore Wind Turbine Development.**

**May 2013**

This document is available to view and download on the Council's web-site at: [www.denbighshire.gov.uk/ldp](http://www.denbighshire.gov.uk/ldp) . Copies are also available to view at main libraries and Council offices and can be obtained from the Strategic Planning and Housing Service, Caledfryn, Smithfield Road, Denbigh LL16 4RJ or by telephoning (01824) 706916.

**Whilst this study was produced jointly by Conwy County Borough Council and Denbighshire County Council, all references to Landscape Units and Landscape Strategy Areas relating to Conwy County Borough Council have been removed.**

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## Acknowledgements

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# 1. Executive Summary

## 1.1 Background

Conwy County Borough Council and Denbighshire County Council (the Councils) both have a significant expanse of rural upland areas which have an abundant onshore wind resource. For the purposes of the SPG, the area covered only relates to Conwy County Borough. This includes Clocaenog Forest which has been designated as one of seven Strategic Search Areas (SSAs) in Wales, as defined in TAN 8. The Welsh Government's approach to wind energy development is to concentrate the development of large scale (>25MW) wind farms within Clocaenog Forest Strategic Search Area and the other SSAs, in order to contribute to the Welsh Government's aspiration to achieve 2GW in total capacity by 2015/2017 (of which 800MW of onshore and offshore wind energy is expected to be provided).<sup>1</sup>

- 1.2 The identification of Clocaenog Forest SSA has led to some large wind energy developments being consented and constructed. Whilst it is recognised that renewable energy development is important to meeting sustainability targets, there does need to be a balance struck between accepting change to landscape character in some areas whilst protecting other areas that may be more susceptible to change.
- 1.3 Welsh Government planning policy does not set out spatial limitations for onshore wind energy development under 25 megawatts (MW) and those smaller developments under 5MW both of which are applicable to all parts of Wales subject to the assessment of localised impacts.
- 1.4 Denbighshire comprises a diverse mix of landscapes many of which are highly valued for their great natural beauty and tranquillity - ranging from remote and wild uplands and moorlands to narrow steep sided valleys, wide river floodplains, gently undulating pastoral lowlands and dramatic coastlines. The busy coastal resort towns along the north coast contrast markedly with the highly rural areas inland.
- 1.5 These landscapes are experiencing an increasing number of planning applications and enquiries for wind energy developments under 5MW, (i.e. applications for single and pairs of wind turbines) as well as larger wind energy schemes being progressed outside the SSA.
- 1.6 This study was commissioned by the Councils in response to this growing pressure on the landscape from wind energy developments. The study provides an evidence based assessment of the relative sensitivity and capacity of Denbighshire's landscape to accommodate wind energy development of varying scales; focussing on smaller scale developments (typically up to a group of 9 wind turbines and 80m maximum height to blade tip).
- 1.7 This study does not generally consider larger wind energy developments (typically a group of 10 turbines or more, over 80m in height to blade tip) as due to the high sensitivity of the landscapes throughout Denbighshire these are generally deemed inappropriate outside Clocaenog Forest SSA.

Table 1.5 below illustrates the wind energy development typologies (types/scales) that were identified in collaboration with the Steering Group for the purpose of this study:

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<sup>1</sup> Ove Arup & Partners (2005), TAN 8 Annex D Study of Strategic Search Area A – Clocaenog Forest Final Issue Report Landscape Sensitivity and Capacity Assessment for Onshore Wind Turbine Development

**Table 1.5: Wind Energy Development Typologies**

<b>Wind Energy Typology</b>	<b>Indicative Output</b> (broad output category <sup>2</sup> )	<b>Supplementary Criteria</b> (meets one or more of the criteria) (determines whether this typology applies or whether a larger one does)
<b>Micro</b>	under 50kW	<ul style="list-style-type: none"> <li>• Single or twin turbine applications</li> <li>• Turbine up to 20m to blade tip</li> </ul>
<b>Small</b>	under 5MW	<ul style="list-style-type: none"> <li>• Turbines up to 3 in number</li> <li>• Turbines up to 50m to blade tip</li> <li>• Viewed as a small group</li> </ul>
<b>Medium</b>	over 5MW and up to 25MW	<ul style="list-style-type: none"> <li>• Turbines up to 9 in number</li> <li>• Turbines up to 80 metres to blade tip</li> <li>• Viewed as a large group</li> </ul>
<b>Large</b>	over 25MW	<ul style="list-style-type: none"> <li>• Turbines over and including 10 in number</li> <li>• Turbines up to 80 metres to blade tip</li> <li>• Viewed as a large scale wind farm</li> </ul>
<b>Very Large</b>	Over 25MW	<ul style="list-style-type: none"> <li>• Turbines over and including 10 in number</li> <li>• Turbines over 110 metres to blade tip</li> <li>• Viewed as a very large scale wind farm</li> </ul>
<b>Strategic</b>	Over 50MW	<ul style="list-style-type: none"> <li>• Turbines over 15 in number</li> <li>• Turbines over 100 metres to blade tip</li> <li>• Viewed as a nationally strategic</li> <li>• Located within the SSA</li> <li>• Applications for which are determined by National Infrastructure Planning delivered through PINS.</li> </ul>

1.8 As stated previously, applications and enquiries for large and very large scale wind farm developments are most commonly associated with Clocaenog Forest SSA. The large and very large typologies have been included within Table 1.5 above for reference; however, as noted above, the capacities for these categories are not dealt with as part of this study.

### 1.9 Aim of the Study

The overall aim of the study is to provide strategic Supplementary Planning Guidance and to assist the Council in assessing the landscape and visual effects of onshore wind energy development for development control purposes with a view to minimising the effect of such developments on the landscape in line with policy VOE9 of the LDP.

#### **Policy VOE 9: On-shore wind energy.**

**On shore wind turbine developments will be supported subject to an assessment of their environmental and sustainability impacts:**

**STRATEGIC / LARGE SCALE developments (generating capacity over 25MW) will be supported within the Clocaenog Strategic Search Area (SSA-A).**

**LOCAL AUTHORITY WIDE SCALE developments (generating capacity between 5MW and 25MW) will only be permitted within the Clocaenog Strategic Search Area where they do not prejudice the development of strategic/large scale schemes.**

<sup>2</sup> These values are for guidance only. Efficiency and energy outputs are continually subject to advances in technology and operational efficiency, therefore it is recognised that these values are likely to change

**SUB LOCAL AUTHORITY SCALE developments (generating capacity between 50kW and 5MW) in the form of individual turbines or clusters of turbines will only be permitted within the Clocaenog Strategic Search Area where they do not prejudice the development of strategic/large scale schemes; and in all the above cases, outside the Area of Outstanding Natural Beauty, Conservation Areas, World Heritage Site and Buffer Zone, and other sites designated for ecological, historic, landscape, or other value, and where they do not adversely affect the setting of these areas.**

**MICRO / SMALL SCALE turbine developments (generating capacity below 50kW) will be permitted subject to an assessment of localised impacts.**

**All applications will be subject to normal environmental impact tests and include specific assessment / explanation of all the following criteria:**

- i) how the proposals are consistent with the Clocaenog Statement of Environmental Master Planning Principles (applicable to strategic/large, local authority wide, and sub local authority scale, where in or on the periphery of the SSA-A); and**
- ii) impacts, including cumulative impact on the surrounding area and community (e.g. landscape/visual, noise, biodiversity, transport, health impact); and**
- iii) information on wind resource and the justification for the choice of turbine; and**
- iv) community engagement; and**
- v) mitigation proposals; and**
- vi) the colours to be used on the turbine tower and blades.**

## **1.10 Study Objectives**

The objectives of the study are to:

- Provide a strategic assessment of the relative sensitivity of Conwy and Denbighshire's landscapes for wind energy development using a defined set of landscape and visual criteria that includes both physical and perceptual aspects as well as a consideration of landscape value.
- Identify the key landscape, visual and perceptual sensitivities of different landscape areas.
- Provide broad guidance on those landscape areas where wind energy development of different scales is potentially most acceptable and those landscape areas where development is likely to result in unacceptable adverse landscape and visual effects.
- Comment on any likely cumulative and cross boundary effects of wind energy development.

## **1.11 Methodology**

There is currently no formally agreed approach for assessing the sensitivity or capacity of landscapes for onshore wind energy development. The methodology set out in Section 2 of the report is developed from current guidance and the approach taken in other similar studies and tailored to this geographically unique study area. It is based on the premise that wind energy development could be more readily accepted in the least sensitive areas and should avoid areas that are highly valued for their scenic, recreational and undeveloped qualities such as tranquility and remoteness; particularly those areas safeguarded by international or national designations and those where the cumulative effects of existing and consented wind energy schemes limit further development.

1.12 Professional judgment and understanding of landscape character is used to make broad assumptions, for instance what makes one landscape more or less sensitive than another.

These evaluations have been informed and backed up by data gathered from the sources of baseline information listed in Appendix 1, including maps, relevant landscape and historic character assessments, LANDMAP, field work and consultations with the Steering Group.

**1.13 It is important to note that this report represents a strategic study and is not prescriptive at an individual site level. It does not replace the need for the Council to assess individual planning applications or for specific local landscape and visual impact assessment as part of formal Environmental Impact Assessment on a case by case basis.**

1.14 It is also important to note that the study is not a cumulative appraisal of wind energy developments. It is also limited to landscape character and visual amenity issues. It does not take account of other natural and cultural heritage considerations (except where they relate to landscape character and visual amenity, including setting), technical factors such as wind speed, grid capacity or aviation constraints or the perceived need for wind energy development. The study focuses on smaller scale wind energy developments and does not consider the remaining capacity of Clocaenog Forest SSA.

**1.15 Evaluation of Landscape Units and Their Sensitivity for Wind Energy Development**

Studies such as this are typically based on existing local landscape character assessments which sub divide the landscape into landscape character types (LCT) or landscape character areas (LCA) (refer Appendix 7 for definitions). For the purpose of this report, in lieu of a current consistent landscape character assessment, the Study Area (Figure 2) was broken down into landscape units which are primarily based on discrete geographical areas of the landscape types identified in the Clwyd Landscape Assessment undertaken in 1995 (refer Section 2, Methodology).

A total of 42 landscape units were identified across Conwy and Denbighshire; these are broadly representative of different character areas of the landscape but are not formally recognised as LCAs).

1.16 Data for each these geographical areas was reviewed and site visits made to back up the findings and to inform evaluations of landscape sensitivity for wind energy developments, as follows:

- 21 LANDMAP layers were reviewed and analysed.
- Desk top studies were reviewed including but not limited to the following: Clwyd Landscape Assessment; Denbighshire Landscape Strategy; Seascape for Wales; Cadw Historic Landscapes; World Heritage Site information; and many more.
- Site visits were made to back up and moderate the findings.

The overall findings of the sensitivity assessments are illustrated in Section 4 and summarised in Table 4.1 below.

**Table 4.1: Summary of Sensitivity**

Landscape Unit		Assessed Sensitivity	Location	Page no.
Ref	Name			
<b>LOWLAND AREAS</b>				
A1	Eastern Lowlands (Cefn Meiriadog Vale Slopes)	High	DCC	43
A2	Coastal Slopes (Gronant, Prestatyn Coastal Slopes)	Medium-High	DCC	46
A3	Lowland Hills	High	CCBC	
A4	Coastal and Estuarine Flats (Prestatyn to Abergele)	Medium	CCBC/DCC	47
A5	Coastal and Estuarine Flats (Colwyn Bay)	Medium-High	CCBC	
A6	Vale Farmlands (Vale of Clwyd)	High	CCBC/DCC	50
A7	Vale Farmlands (Dee Valley – Corwen)	High	DCC	54
A8	Coastal Landscape Unit (Penmaenmawr to Llanfairechan)	High	CCBC	

<b>LOWER HILLS AND VALLEYS</b>				
<b>B1</b>	Gritstone Hills (Graianrhyd)	<b>High</b>	DCC	57
<b>B2</b>	Deep Valleys (Aled and Elwy)	<b>High</b>	CCBC/DCC	58
<b>B3</b>	Deep Valleys (Vale of Llangollen and Eglwyseg Valley)	<b>Very High</b>	DCC	62
<b>B4</b>	Hill Slopes (Clwydian Range Hill Slopes)	<b>Very High</b>	DCC	65
<b>B5</b>	Hill Slopes (Morwynion Valley)	<b>High</b>	DCC	67
<b>B6</b>	Hill Slopes (Llandrillo Berwyn Hill Slopes)	<b>High</b>	DCC	69
<b>B7</b>	Conwy Valley	<b>High</b>	CCBC	
<b>LIMESTONE COUNTRY</b>				
<b>C1</b>	Trelawnyd Plateau	<b>High</b>	DCC	72
<b>C2</b>	Limestone Farmlands (Llandegla to Maeshafn)	<b>High</b>	DCC	74
<b>C3</b>	Limestone Farmlands (West of the Vale of Clwyd)	<b>High</b>	DCC	78
<b>C4</b>	Limestone Farmlands (Abergele to Denbigh Coastal/Vale Hills)	<b>High</b>	CCBC/DCC	80
<b>C5</b>	Limestone Farmlands (Northern Clwydian Range)	<b>Very High</b>	DCC	83
<b>C6</b>	Limestone Escarpment and Hills (Bryn Alyn – Maeshafn Escarpment)	<b>Very High</b>	DCC	86
<b>C7</b>	Limestone Escarpment and Hills (Eglwyseg Escarpment)	<b>Very High</b>	DCC	89
<b>C8</b>	Limestone Escarpment and Hills (Prestatyn – Dyserth Hillside)	<b>Very High</b>	DCC	92
<b>C9</b>	Limestone Escarpment and Hills	<b>High</b>	CCBC	
<b>C10</b>	Great Orme and Creuddyn Peninsular	<b>High</b>	CCBC	
<b>MARGINAL UPLAND</b>				
<b>D1</b>	Aled Hiraethog Hills (West)	<b>High</b>	CCBC	
<b>D2</b>	Hill Forest (Clocaenog Forest)	<b>Low</b>	CCBC/DCC	94
<b>D3</b>	Cerrig Uplands	<b>High</b>	CCBC/DCC	97
<b>D4</b>	Maerdy Hills	<b>High</b>	CCBC/DCC	101
<b>D5</b>	Edeirion Hills	<b>Medium-High</b>	CCBC/DCC	104
<b>D6</b>	Upland Plateau (Mynydd Rhyd Ddu)	<b>Low</b>	DCC	108
<b>D7</b>	Upland Plateau (Mynydd Mynyllod)	<b>Medium</b>	DCC	111
<b>D8</b>	Upland Plateau	<b>Medium-High</b>	CCBC	
<b>D9</b>	Moorland Plateau (Y Berwyn)	<b>High</b>	DCC	114
<b>D10</b>	Moorland Plateau (Denbigh Moors)	<b>High</b>	CCBC/DCC	117
<b>D11</b>	Moorland Plateau	<b>Very High</b>	CCBC	
<b>D12</b>	Moorland Plateau (Cyrn y Brain – Eglwyseg Mountain)	<b>Very High</b>	DCC	120
<b>D13</b>	Moorland Ridge (Clwydian Ridgeline)	<b>Very High</b>	DCC	123
<b>D14</b>	Moorland Ridge (Llantysilio Ridgeline)	<b>Very High</b>	DCC	127
<b>D15</b>	Moorland Ridge	<b>High</b>	CCBC	
<b>D16</b>	Marginal Upland (East Conwy Valley)	<b>High</b>	CCBC	
<b>D17</b>	Aled Hiraethog Hills (East)	<b>High</b>	DCC	131

### 1.17 Evaluation of Landscape Strategy Areas and Capacity Assessments

For the purpose of assessing the capacity of the landscape for wind energy development the 42 landscape units were combined into 15 larger landscape strategy areas. This process was informed by reviewing the sensitivity assessments, supplemented by an analysis of intervisibility, key visual receptors, topography (including ridgelines and water-sheds based on LANDMAP information), Ordnance Survey and GIS data, landscape character, observations made during field studies and discussions with the Steering Group.

- 1.18 A judgement was then made on the overall sensitivity of each of these strategy areas based on an assessment of their constituent landscape units. A statement of the overall sensitivity of the strategy area in relation to wind energy development is presented within each landscape strategy evaluation, together with a justification of the assessment. This justification includes a list of the landscape, visual and cultural heritage characteristics and qualities which are susceptible to wind energy development. The overall sensitivity assessments for the landscape strategy areas are illustrated in Section 5 and summarised in Table 5.1 below.



**Table 5.1: Summary of Strategy Areas and Overall Sensitivity**

Landscape Strategy Area		Overall Sensitivity	Landscape Strategy Area Location		Page Number
Ref	Name		Conwy	Denbighshire	
1	Clwydian Hills	Very High		100%	136
2	Vale of Clwyd	High	5%	95%	138
3	South Clwydian Hills	Medium-High	5%	95%	141
4	Vale of Llangollen	Very High		100%	143
5	Berwyn Mountains	Very High		100%	145
6	Western Dee Valley	Medium - High		100%	147
7	Clocaenog Forest	Low	50%	50%	149
8	Cerrig Uplands	High	90%	10%	152
9	Denbigh Moors	High	80%	20%	154
10	Rhos Hills	High	60%	40%	156
11	Elwy Valley	High	95%	5%	158
12	Conwy Valley	High	100%		-
13	North West Conwy Coast	High	100%		-
14	Colwyn Coast	High	95%	5%	160
15	Coastal Flats	Medium	45%	55%	162

1.19 The landscape strategy for each of the 15 LSA areas is set out separately and includes the landscape objective(s) for the area, a record of operational and consented wind energy development (March 2013), an indication of the types of wind energy development which might be accommodated (indicative capacity) and some broad guidance notes regarding the scale, design and siting of wind energy developments.

**1.20 It is important to note that the strategy area evaluation sheets must be read together with the relevant sensitivity evaluation sheets to gain a full appreciation of the sensitivity and capacity of the landscape in relation to wind energy developments.**

**1.21 Guidance for Wind Energy Development Within Strategy Areas**

Additional generic guidance notes for the siting and design of wind energy developments are included in Section 6.

**1.22 Conclusion**

Denbighshire is enveloped by two nationally designated landscapes, Snowdonia National Park which lies immediately to the west of the study area and the Clwydian Range and Dee Valley AONB (Denbighshire) much of which lies within the eastern part of the study area. The distance between these two highly valued landscapes ranges from approximately 20 km to 35 km and there is good intervisibility between the higher parts of each.

1.23 Taking the above into consideration and the fact that Denbighshire comprise a diverse mix of landscapes (many of which are highly valued for their natural beauty and special qualities such as tranquillity and/or remoteness) much of the study area is considered to be highly sensitive for wind energy developments.

1.24 The study identifies some capacity for mostly micro and small scale wind energy developments but little capacity for anything larger.

1.25 This report provides a good starting point for identifying the key landscape and visual issues that should be taken into consideration when looking at individual development applications as the document will be used as a material consideration when assessing development.

1.26 It provides a strategic overview of the sensitivity and capacity of Denbighshire’s landscapes for wind energy development, and helps answer the following questions:



- What types of landscapes does Denbighshire have?
- Why are these landscapes sensitive (or not) for wind energy developments?
- How sensitive are the area's landscape for wind energy developments?
- What types of wind energy could potentially be accommodated without compromising the integrity and value of the landscape?
- How could wind energy development be designed/accommodated to minimise adverse landscape and visual effects?

1.27 The text below summarises how it is anticipated that this report will be used to assist decision makers with regard to assessing wind energy development proposals.

### 1.28 How to Use This Report

The text below and accompanying flow chart diagram represents a brief guide on how to use the Landscape Capacity and Sensitivity Assessment for Wind Energy Development report.

### 1.29 Sensitivity of Development Location

1. Review **Figure 5** Landscape Units
  - Which landscape unit is the proposed development located in?
2. Review the evaluations of the sensitivity of the landscape unit and **Figure 3** Landscape and Cultural Heritage Designations / Constraints taking into consideration the descriptions of intervisibility and also reviewing adjacent landscape units where strong associations are identified.
3. List the key landscape features which are sensitive to wind energy development within the landscape unit which the proposal is located.

### Proposed Scale of Wind Energy Development

4. Review **Table 1.5:** Wind Energy Development Typologies
  - What is the typology is deemed the 'best fit' for this proposed development?

### Landscape Strategy and Capacity

5. Review **Figure 6** Landscape Strategy Areas
  - Within which landscape strategy area is the proposed wind energy development located?
6. Review the Landscape Strategy for this Area
  - What is the landscape objective for this strategy area? What does this objective mean? (detailed descriptions are included in **Section 2: Methodology** Landscape Objectives)
7. Review **Figure 4** Operational and Consented Wind Energy Developments (March 2013) and accompanying **Table A41:** Operational and Consented Wind Energy Developments (March 2013)
  - What developments already exist in this strategy area?
  - Are you aware of any additional wind energy developments that have been consented / constructed in the landscape strategy area since March 2013?
  - Are there any wind energy developments within neighbouring strategy areas or within the study area buffer that may influence the viability of this development? In order to answer this question it would be useful to obtain details of zones of theoretical visibility (ZTV) relating to any such other developments to identify where potential cumulative impacts may arise. ZTV may have been submitted as part of an Environmental Impact Assessment (EIA) or landscape and visual impact assessment (LVIA) – check with planning authority.
8. Review the Indicative Overall Capacity for the area
  - Is there sufficient information to put a case forward which demonstrates that this proposed development falls within the indicative capacity for the area?

- Is there any evidence to suggest that this development may give rise to any cumulative landscape or visual effects?
9. Review the guidance on siting for this landscape strategy area
- Consider and note down any guidance which may have implications on this particular proposed development.

**Offer advice**

10. Use the landscape strategy evaluation, indicative overall capacity and guidance on siting turbines (backed up by cross referencing the evaluation of the relevant landscape units and their sensitivity for wind energy development) to advise perspective applicants on what needs consideration in the application.

Applicants are to address these issues in the application justification statement (be that Design Access Statement/Landscape and Visual Impact Assessment/Environmental Impact Assessment).

# 1.30 Guide to using the Landscape Sensitivity & Capacity Assessment to Wind Energy Development Report

## Key Question Approach

### Location

**Q Is wind energy development supported within the landscape strategy area?**

To identify which Strategy Area the proposed Wind Energy Development is located:

1. Check location of the proposed development against Figure 5 'Landscape Units'
2. Review the assessed sensitivity of the 'Landscape Unit' and adjoining units
3. Check location of the proposed development against Figure 6 'Landscape Strategy Areas'
4. Review the Strategy Area objective(s)

Y N

**ACTION**

**Planner:**  
Consider whether this is a material consideration to refuse permission

**Developer:**  
Consider relocation of development to reduce conflict with Landscape Sensitivity, Strategy and Capacity

### Scale

**Q Does the typology of the proposal fit with those supported in the 'Landscape Strategy'?**

To identify the topology of the proposed development:

1. Check proposed development against Table A: Wind Energy Development Typologies
2. Review the Strategy Area objective(s) and indicative overall capacity to determine which typologies are appropriate

Y N

**ACTION**

**Planner:**  
Consider whether this is a material consideration to refuse permission

**Developer:**  
Consider relocation of development to reduce conflict with Landscape Sensitivity, Strategy and Capacity

### Capacity

**Q Does the proposal fit within the overall indicative capacity identified within the strategy area?**

To identify what other wind energy developments are in the landscape strategy area:

1. Check proposed development against Figure 4 operational and consented Wind Energy Developments (March 2013)
2. Check whether any other applications have been made or consents given for Wind Energy Developments since March 2013?

maybe  
Y N

**ACTION**

**Planner:**  
Consider whether this is a material consideration to refuse permission

**Developer:**  
Consider relocation of development to reduce conflict with Landscape Sensitivity, Strategy and Capacity

**ACTION**  
**Planner:**

Assess potential landscape & visual effects of proposed Wind Energy Development. If necessary, seek to revise the scheme siting, layout and design in relation to guidance within this report

**Developer:**

Review and address detailed siting, layout and design issues in relation to guidance within this report

APPENDIX 3

# **CLOCAENOG FOREST – CUMULATIVE NOISE IMPACT ASSESSMENT**

(24 pages)

For full document, please see [Denbighshire website \(LDP pages - Planning and Building Regulations>Local Development Plan>Visit the LDP website>Supplementary Planning Guidance\)](#)