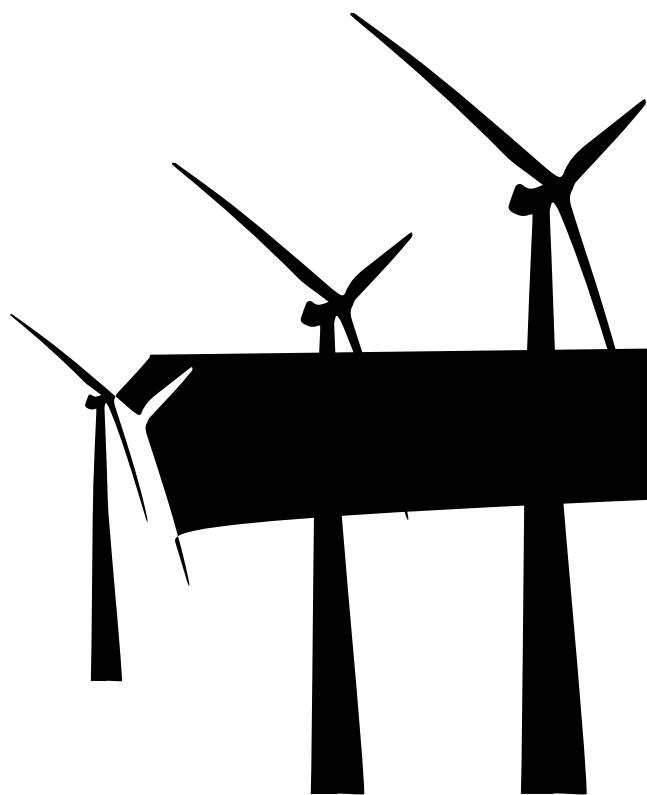
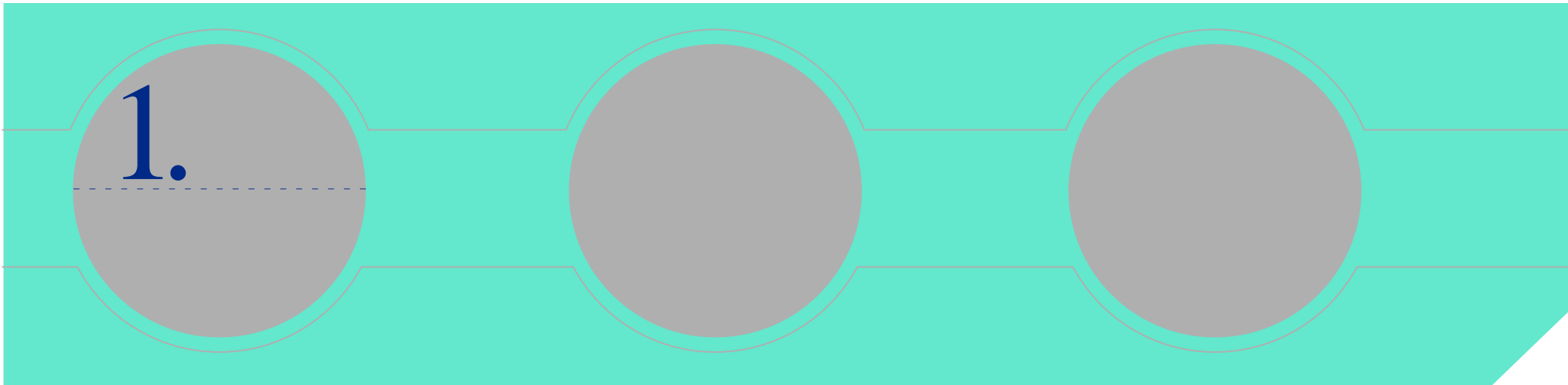


Planning Guidance for Smaller Scale Wind Turbine Development Landscape and Visual Impact Assessment Requirements



Prepared by Gillespies LLP
for



Introduction

The Structure of the Guidance

Overview

Parts 1 and 2 of this guidance are intended to help LPAs determine whether a Schedule 2 wind turbine development is likely to have significant effects on the landscape or on visual amenity by virtue of its nature, size or location. An EIA will be required if it is considered likely that significant effects may arise.

Part 3 sets out the minimum requirements and standards of information to be submitted with a landscape and visual impact assessment (LVIA). All wind turbine applications will require some consideration of landscape and visual impact.

This guidance reflects the principle that potential landscape and visual impacts from wind turbine development are related to the size and scale of the proposed development and to the sensitivity of the location. Consequently, the information sought and the level of LVIA required from Developers will be determined by:

- the scale of the proposal; and
- the sensitivity of the location.

Table 1 sets out a series of typologies for wind turbine development. The typologies are determined by the height to blade tip of the turbine(s) and the number of turbines. The level of LVIA required will usually be less for smaller proposals than for larger proposals.

LANDMAP is the Welsh approach to landscape assessment. All LVIA's should use LANDMAP data to inform their assessments.

Online Wind Turbine Database for South Wales

LVIA's for wind turbine development must include a consideration of cumulative landscape and visual impacts (CLVIA) that may arise as a result of other wind turbine development or other large scale infrastructure. To assist in the preparation of CLVIA's an **Online Wind Turbine Database for South Wales** (Online Database) has been developed. The Online Database contains information on the dimensions and location of all operational and consented turbines and turbines for which a planning application has been submitted. The latter are described in this guidance as 'in planning' turbines.

For cumulative assessment purposes the typologies relate only to the height of the operational, consented and in planning turbines. Turbines within the database will be classified according to their height to blade tip only.

In the future the Online Database will also contain information on turbines for which a screening opinion has been requested and applications that have been refused or withdrawn. Details on how to access the Online Database can be found at the end of this Guidance.

Notes on Landscape and Visual Assessments

There is a difference between a landscape and visual assessment that forms part of an EIA, which is called a Landscape and Visual Impact Assessment (LVIA), and one that does not form part of an EIA which is known as a Landscape and Visual Appraisal (LVA). However, for simplicity the term LVIA has been used throughout this guidance to cover both kinds of assessment.

Guidelines for Landscape and Visual Impact Assessment Third Edition Statement of Clarification 1/13 published by the landscape Institute provides further clarification on the difference between a LVIA and a LVA.

Developers considering the submission of a planning application for wind development are advised to engage a Landscape Consultant from an early stage to ensure professional judgement is applied in undertaking the LVIA.

Introduction

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The Structure of the Guidance

Part 1: Minimum requirements for submission of a request for a screening opinion

Part 1 of the guidance sets out the minimum information that Developers should provide in order that Local Planning Officers can determine whether a particular development is likely to have a significant effects on the landscape or on visual amenity and therefore require an EIA.

Part 2: Methodology for EIA Screening

Part 2 of the guidance contains a methodology for Local Planning Officers to use when determining whether an EIA is required. The methodology provides a clear indication of how the information required (as set out in Part 1) will be used to determine:

- the characteristics of the development; and
- the environmental sensitivity of the geographical areas likely to be most affected by the development.

This information, considered in the light of the potential impacts, will determine whether an EIA is required due to likely significant effects on the landscape or on visual amenity.

The screening criteria in Parts 1 & 2 are indicators of the key landscape and visual issues likely to arise in relation to smaller scale wind turbine development and include the likelihood of:

- significant impacts on sensitive landscape receptors;
- significant impacts on residential properties and other sensitive visual receptors; and
- cumulative effects with other wind turbine developments and with existing large scale infrastructure.

The screening criteria use distances, defined by the typology, to indicate the potential for sensitive receptors to be significantly affected by the development. **These distances are indicative and not absolute. Each development will raise its own issues and will be considered by the LPA on a case by case basis.**

Sensitive landscape and visual receptors are not necessarily the same as 'sensitive areas' as defined in the EIA regulations.

Part 3: Minimum Requirements for EIA and Non-EIA Development

Part 3 of the guidance identifies the minimum requirements for the landscape and visual information to be submitted with a planning application for wind turbine development. It is based on the different typologies and should be used to agree the scope of the LVIA with the LPA. Associated infrastructure (e.g. access tracks, and grid connection where known) should be considered as part of the assessment.

It is likely that all wind turbine development where the turbine height to blade tip is greater than 80m or where there are more than five turbines will require an EIA although if requested an LPA will provide a screening opinion. All wind turbine development of this scale will require a detailed LVIA. It is recommended that Developers proposing wind turbines of this scale should move to Part 3 of the guidance which sets out the minimum requirements and standards of information to be submitted which should be used as the basis for agreeing the scope of the LVIA with the LPA.

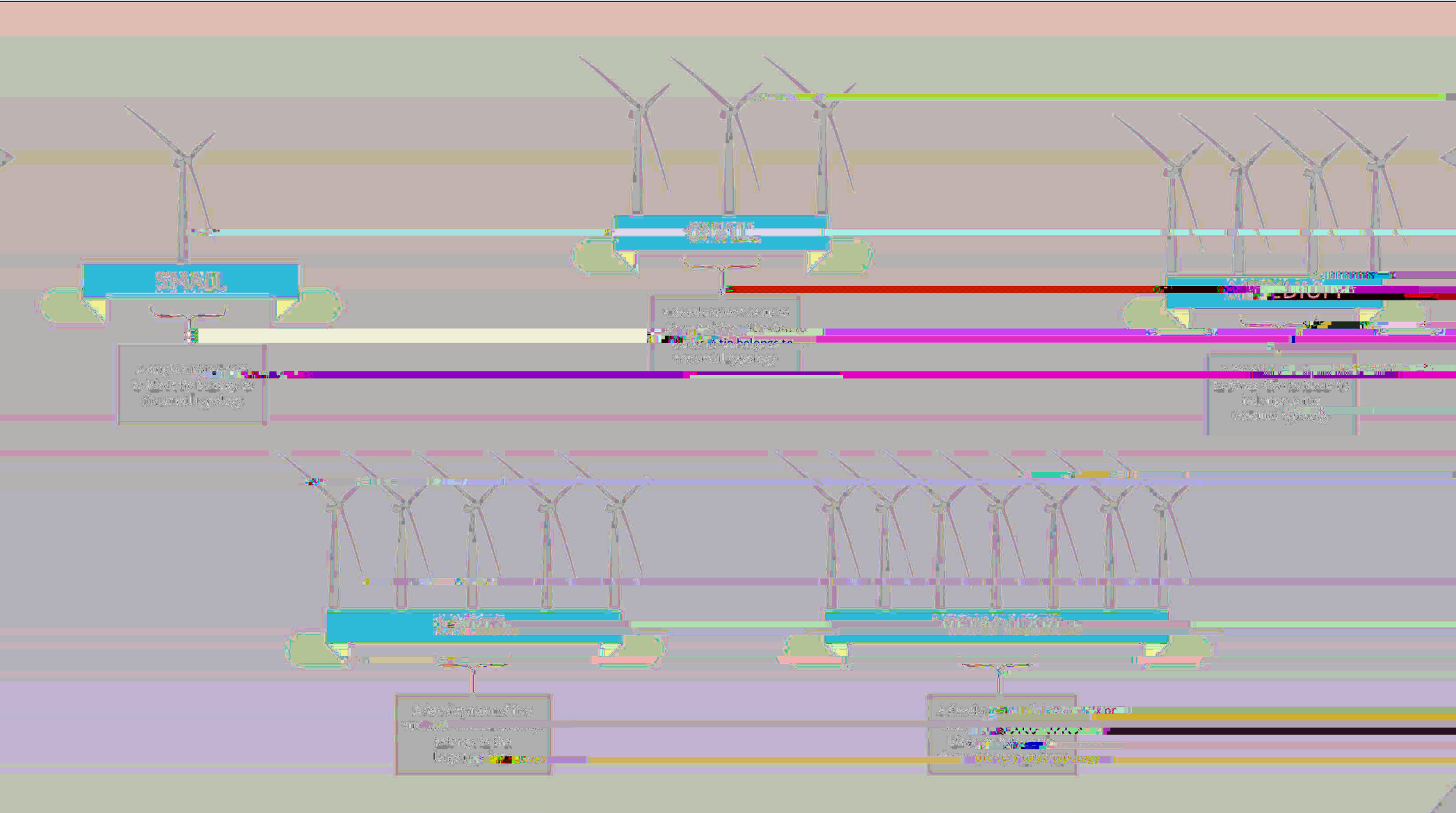
Agreeing the scope of the LVIA is important both for EIA and non-EIA development. Part 1 and Part 3 of the Guidance should be used by Developers to inform Scoping Reports for LVIA, and by Local Planning Officers when agreeing the scope of the LVIA.

Throughout this guidance the information required is determined by the typology into which the development falls.

Introduction

Typologies: Illustrative Example

Figure - 1 Illustrative example of the relationship between turbine height, number and typology





Part One: Minimum requirements for submission of a request for an EIA screening opinion

Introduction

1.1

Scope of this Part

Part One: Minimum requirements for submission of a request for an EIA screening opinion

Section B: Information to be provided for a MICRO development

World Heritage Site

Operational, consented or i1 T6

Statutorily designated landscape
(National Park, Area of Outstanding Natural Beauty)

Part One: Minimum requirements for submission of a request for an EIA screening opinion

Section C: Information to be provided for a SMALL development

Sensitive landscape and visual receptors

Sensitive landscape and visual receptors should be identified according to the distance from the turbine as set out below. Each sensitive landscape or visual receptor should be:

- identified by name; and
- shown on one of the plans submitted.

Information regarding the distances between the receptors and the application turbine(s) should be provided in a table.

Operational, consented or in planning (OCP) turbine development:

World Heritage Site

Statutorily designated landscape (National Park, Area of Outstanding Natural Beauty)

Using the Online Database identify:

- **all** OCP turbines within 2km; and
- **small, medium, large or very large** OCP turbines within 8km.

Each OCP turbine or group of turbines should be:

- identified by name; and
- shown on one of the plans submitted.

Information should be provided in a table regarding the distances 12(e8w.itwee

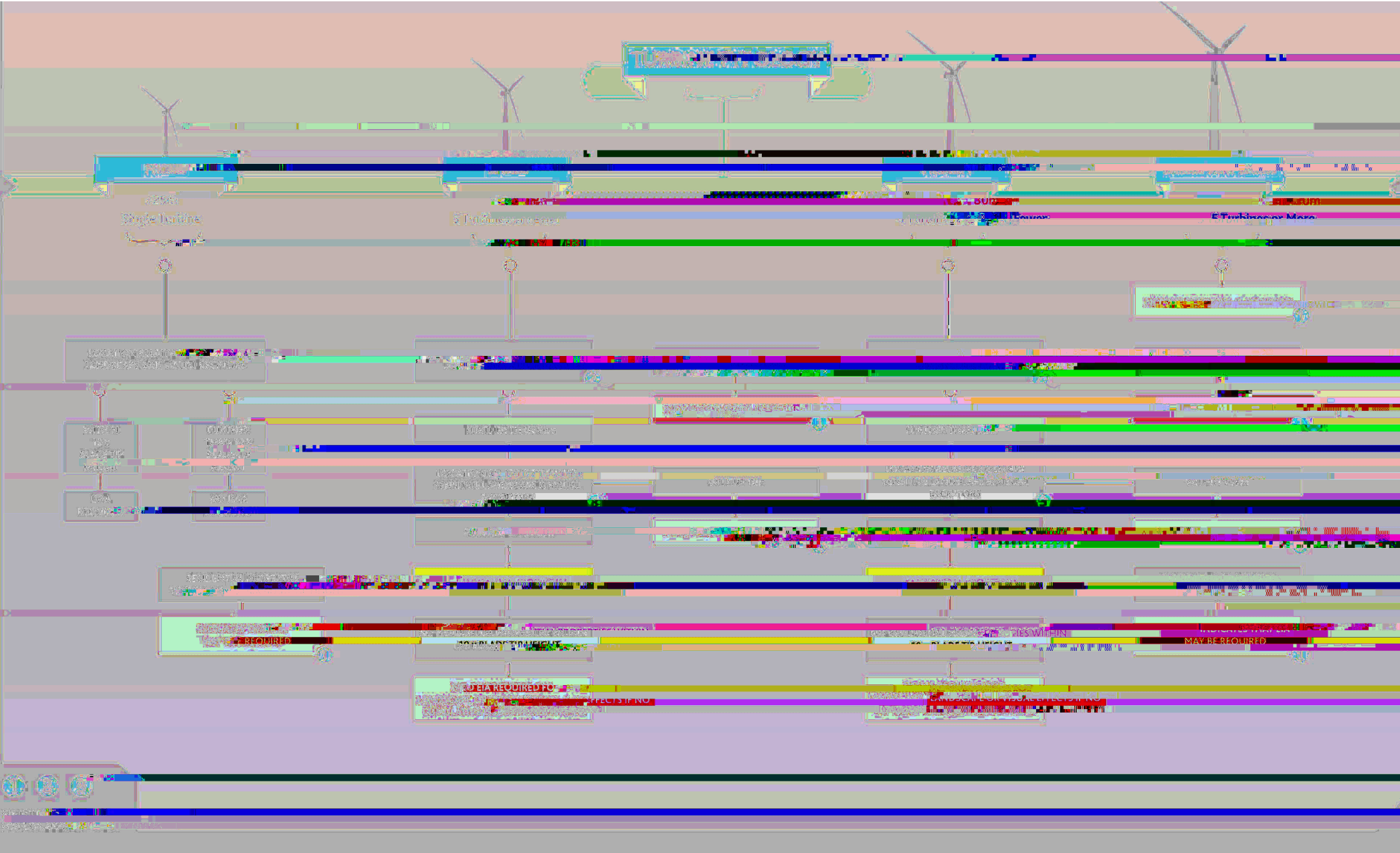
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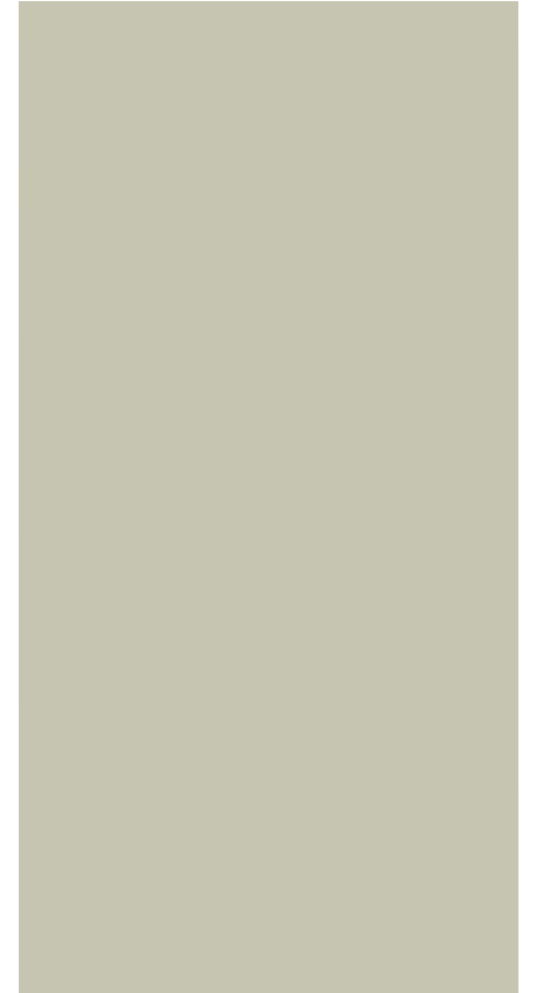
Part two:

Methodology to be employed
for EIA Screening with regard to
Landscape and Visual Issues

Figure 2: Methodology Flow Chart



It is likely that a development that meets these criteria will require an EIA for landscape and visual reasons. However where the development only just meets the criteria the criteria



Part Two: Methodology for EIA Screening Cumulative Issues

An EIA may be required due to potential significant cumulative effects. The potential for a cumulative effect will depend on the proximity of other turbines and their height. For example an existing micro turbine might raise cumulative issues but only if it is within 2km.

The online wind turbine database categorises turbines according to their height and for CLVIA only the typologies are determined by height alone.

Table 3: Cumulative Search Areas sets out the distances at which different height turbines need to be considered in a CLVIA. For example an application for a medium typology development would need to consider the following operational, consented or in planning turbines:

- Micro turbines within 2km,
- Small turbines within 8km and
- Medium, large or very large turbines within 12km.

Table 3: Cumulative Search Areas

Height of Operational, Consented or in Planning Turbine(s)	Typology of Application Turbine(s)				
	Mi	S	M	L	VL
Mi <25m	2km	2km	2km	2km	2km
S <50m	2km	8km	8km	8km	8km
M <80m	2km	8km	12km	12km	12km
L <109	2km	8km	12km	17km	17km
VL ≥109	2km	8km	12km	17km	23km

The distances given are the distance from the turbine(s) within the application development.

Turbines that are operational, consented or in planning (OCP) can be scoped out if they are outside the search area relevant to their height. For example no micro turbines beyond 2km need to be considered in CLVIA. For more details on cumulative search areas see Table 7 and Figure 3 in Part 3 of this Guidance.

The distances given in Table 3 are reflected in the information requested in Part 1. OCP turbines that fall within the relevant search areas must be considered in a CLVIA.

An EIA will be required if it is considered that the number of OCP turbines, or the presence of existing large scale infrastructure is likely to give rise to significant impacts.

Table 4 sets out the thresholds at which an EIA may be required on account of potential landscape and visual cumulative impacts with regard to other turbines or large scale infrastructure (e.g. pylons, motorways, major trunk roads and telecommunications masts). These thresholds are indicative only and applications must be judged on a case by case basis.

Large and very large developments will always require detailed LVIA and CLVIA.

Table 4: Cumulative Thresholds : Other Infrastructure

Typology	No. of Operational, consented and in planning turbines within cumulative search area	Occurrence of large scale infrastructure within cumulative search area
Micro	More than 5 turbines	2 or more within 10x blade tip height
Small	More than 10 turbines	2 or more within 1km
Medium	More than 15 turbines	2 or more within 1.5km

This guidance is intended to help Developers and Local Planning Authorities decide on whether an EIA is required on account of likely significant landscape and visual effects.

Where it is determined that no EIA significant effects are likely and an EIA is not

3.

Minimum requirements and standards of information to be submitted as part of an LVIA for both EIA and

Part Three: Minimum Requirements and Standard of Information for LVIA

Section A: Information to be provided for all applications

Scoping

Agreeing the scope of the LVIA is important both for EIA and non-EIA development. Parts 1 and 3 of this Guidance identify the information that will be required for each typology and should be used by Developers to inform Scoping Reports for LVIA. Parts 1 and 3 of this Guidance should also be used by Local Planning Officers when agreeing the scope of the LVIA. For ease of reference some of the Tables from Parts 1 and 2 have been repeated in Part 3.

Information	General Requirements
Details of turbine(s)	<ul style="list-style-type: none"> Typology (Table 2) Maximum height to blade tip Height to hub Rotor diameter Make and model of turbine where known Colour of blades, hub and tower Dimensioned elevations of the turbine A six figure easting and six figure northing grid reference for each turbine
Details of ancillary infrastructure	<ul style="list-style-type: none"> Details of any other structure, plant or engineering works that are proposed as part of the development including any new tracks and control buildings Details of grid connection where known and options/preferred route when not known.
Details of Construction Access	<ul style="list-style-type: none"> Details of any road construction/road improvement schemes beyond the site boundary required to provide construction access.
Plans	<ul style="list-style-type: none"> 1:2,500 location plan 1:500 site plan Plans to be based on an Ordnance Survey extract giving sufficient information to indicate the position of the application turbine(s) in the landscape and its relationship with other buildings, nearby dwellings, woodland, hedges, rivers and ponds. Plans should provide basic topographic information of the site and its surroundings in the form of contour lines. Access routes from the highway, routes to connect to the electricity network/grid and any associated building should be shown. Plan showing the study area (Table 2) at A3. The scale of the plan will be determined by the extent of Study Area required.

Part Three: Minimum Requirements and Standard of Information for LVIA's

Section A: Information to be provided for all applications

Table 2: Typologies and Study Areas (Repeated from Part One)

TYPOLOGY	HEIGHT	TURBINE NUMBERS	STUDY AREA
	Turbines development in this typology will have a blade tip height of:	and will consist of:	
MICRO (Mi)	< 25m or roof mounted	Only one turbine	2km
SMALL (S)	< 50m	Three turbines or fewer	5km
MEDIUM (M)	< 80m	Four turbines or fewer	8km
LARGE (L)	< 109m	Five turbines or fewer	11km
VERY LARGE (VL)	≥109m	Any number of turbines	15km

Note: Any group of six or more turbines will belong to the very large development typology irrespective of the height of the turbines.

The study area, which is measured as a radius from the application turbine(s), is the minimum that will be required for a typical development. A larger study area may be required if particularly sensitive landscape / visual receptors are located beyond the study area. This may result in an asymmetrical study area and should be agreed on a case by case basis.

Part Three: Minimum Requirements and Standard of Information for LVIAs

Section B: Typology Specific requirements

Table 5: Information required for each Typology

Typology	Study Area	ZTV	Visualisations ((Cumulative Assessment	Residential Study Area	Application of LANDMAP Data	Seascape Assessment
			Not required	Location plan Written assessment	10 x blade tip height	Identification of Aspect Areas within study area.	
			3-5 visualisations. If EIA is required the location and number of visualisations will be agreed in scoping. Wirelines without photomontages may be acceptable.	Location plan. Cumulative ZTV may be required. Cumulative wirelines / photomontages may be required. Written assessment.	10 x blade tip height	<p>All aspect areas affected by the footprint of the development should be considered in detail. Aspect areas outside the site should be considered in line with LANDMAP Guidance Note 3: Using LANDMAP for Landscape and Visual Impact Assessment of Onshore Wind Turbines. (See Part 3: Section C of this guidance).</p> <p>LANDMAP Guidance Note 3: Using LANDMAP for Landscape and Visual Impact Assessment of Onshore Wind Turbines provides more detailed guidance (See Part 3: Section C of this guidance).</p>	<p>Where the ZTV for the study area extends across coastal areas the Seascape Assessment of Wales (CCW 2009) and any other local seascape assessments should be taken into account</p>
		5-7 visualisations. If EIA is required the location and number of visualisations will be agreed in scoping. Wirelines without photomontages may be acceptable.	Location plan. Cumulative ZTV likely to be required. Cumulative wirelines / photomontages likely to be required. Written assessment.	10 x blade tip height			
		The location and number of visualisations will be agreed in scoping. Photomontages and wirelines required.	Location plan. Cumulative ZTV. Cumulative wirelines / photomontages required. Full CLVIA.	10 x blade tip height or as agreed in scoping			
		The location and number of visualisations will be agreed in scoping. Photomontages and wirelines.	Location plan. Cumulative ZTV. Cumulative wirelines / photomontages. Full CLVIA.	10 x blade tip height or as agreed in scoping			

Part Three: Minimum Requirements and Standard of Information for LVIAs

Section B: Typology Specific requirements

Notes

1 The **Zone of Theoretical Visibility** (ZTV) is a computer generated plan that shows the visibility of the turbine(s) in the surrounding landscape.

ZTVs are based on topography and because they do not take into account screening elements within the landscape such as trees, woodland or buildings they indicate theoretical visibility only.

Sometimes significant screening elements in the landscape, such as settlements and woodlands are mapped to give a more accurate but still theoretical zone of visibility.

2 Micro schemes within 10x blade tip height of a statutorily designated landscape or a World Heritage Site may require a ZTV and visualisations.

3 All locations chosen for visualisations must be within the area where the ZTV indicates that the turbine(s) may be visible.

Visualisations should be representative of the study area and should illustrate a range of distances from the turbine(s). However it is essential that the area closest to the turbine(s) is well represented.

Visualisations should be prepared with reference to either the current Scottish Natural Heritage Guidance or the current Highlands Council Guidance.

Single turbines and small groups of turbines will not usually require panoramic photomontages.

The location of viewpoints and visualisations will need to be agreed with the planning authority.

4 Both wirelines and photomontages must be accompanied by a photograph of the existing landscape.

Where wirelines are presented without an accompanying photomontage they should be superimposed on a photograph.

5 For cumulative search areas see Table 3. For detailed Guidance on CLVIA see *Pembrokeshire and Carmarthenshire: Cumulative Impact of Wind Turbines on Landscape and Visual Amenity guidance* prepared for Carmarthenshire County Council, Pembrokeshire Coast National Park Authority, and Pembrokeshire County Council 2013. (See Part 3: Section D of this guidance)

6 The Residential Study Area is the area within which a residential visual amenity assessment should be undertaken. Properties just beyond 10x the height to blade tip should be included if clear visibility is indicated. If micro-siting allowances are being proposed the study area should be increased proportionately.

Part Three: Minimum Requirements and Standard of Information for LVIA

Section C: LVIA Guidance

Key Guidance

Where a wind turbine landscape sensitivity study has been undertaken for the area in which the turbine is proposed it must be considered in the LVIA. Consideration must be given to the methodology used in the preparation of the relevant sensitivity study.

A range of guidance for the preparation of LVIA and CLVIA is available most of which is available online. There are two key documents with regard to wind turbine development in Wales:

- *Guidelines for Landscape and Visual Impact Assessment Third Edition (GLVIA3)*, Landscape Institute and IEMA, 2013 (not available online) provides general guidance on best practice with regard to both LVIA and CLVIA.
- *LANDMAP Guidance Note 3: Using LANDMAP for Landscape and Visual Impact Assessment of Onshore Wind Turbines* (Guidance Note 3) is specific to Wales and to wind turbine development.

Guidelines for Landscape and Visual Impact Assessment Third Edition (GLVIA3)

Guidelines for Landscape and Visual Impact Assessment:

- sets out the key principles behind LVIA;
- stresses the importance of proportionality; the length and detail of the assessments should reflect the scale of the development and the sensitivity of the receptors;
- encourages the use of narrative text and analysis; and
- recommends that tables and matrices should be used to support and summarise the descriptive text not to replace it.

Scoping Reports should indicate that they have understood the principles of GLVIA3 and that these principles will be reflected in the assessment.

Establishing the baseline landscape and visual conditions is the first task of an LVIA. In Wales establishing the baseline condition will be informed by an analysis of LANDMAP data alongside any published landscape character assessments. Site survey work is essential to confirm the baseline landscape and visual conditions against which the changes will be assessed.

Landscape effects are effects on the landscape as a resource and on the character of the landscape. Landscape effects should be considered separately to visual effects, which are effects on visual amenity as experienced by people. However, the key effect of wind turbine development on the character of the landscape is as a result of visual changes and the analysis of visual change will inform both the landscape and visual assessment.

Assessing the significance of landscape and visual effects is a matter of judgement. It is essential that the basis of such judgements is clearly expressed so that the underlying assumptions and reasoning can be understood.

A step-by-step approach should be taken to making judgements of significance combining judgements about the sensitivity of the receptor and the magnitude of change.

The LVIA, the CLVIA and the residential visual amenity assessment should be prepared in a manner that will help decision makers understand the significance of proposed changes to the landscape and to visual amenity.

Part Three: Minimum Requirements and Standard of Information for LVIAs

Section C: LVIA Guidance

General principles

LANDMAP consists of five spatial layers that are divided up into discrete geographical units (polygons in GIS) known as aspect areas. The five spatial layers are Cultural Landscape, Geological Landscape, Historic Landscape, Landscape Habitats and Visual & Sensory. Together they form a complete all-Wales GIS based landscape resource where landscape characteristics and qualities, and influences on the landscape are recorded and evaluated within a nationally consistent dataset.

LANDMAP Guidance Note 3:

- sets out the essential role of LANDMAP in the LVIA/ EIA process, including at the scoping stage;
- provides advice on the geographical area to assess; and
- advises that larger study areas may be required for particularly sensitive receptors such as National Parks and Areas of Outstanding Natural Beauty

Key principles that underpin the use of LANDMAP when undertaking a wind turbine development LVIA are:

- all five aspect layers should be considered in the assessment;
- the study areas for the different aspect layers will vary; and
- the ZTV and the LANDMAP database should be used to identify where turbines would be visible from aspect areas with high or outstanding evaluations. Other aspect areas may not require consideration in the detailed assessment.

Landscape effects on access routes should be assessed as road widening or straightening may have direct impacts on the landscape as well as effects on the existing character of the landscape.

The LANDMAP website should be checked for the current version of Guidance Note 3.

Initial consideration

All aspect areas in which the turbine(s) is located must be considered in the initial assessment

For the Cultural Landscape, Geological Landscape and Landscape Habitat aspect layers only the aspect area in which the turbine(s) is located, or the immediately adjacent aspect areas, will require consideration.

Part Three: Minimum Requirements and Standard of Information for LVIA

Section C: LVIA Guidance

Table 6: LANDMAP Aspect Areas to be consider in LVIA

Aspect	Aspect areas to be considered	Typical study area radius	Identification of adjacent aspect areas for detailed assessment. All aspects areas in which the turbine(s) is located must be considered regardless of the evaluation.	Useful thematic maps to inform study (can be overlaid with ZTV)
Cultural Landscape	Aspect area in which the turbine(s) is located. Immediately adjacent aspect areas where a special relationship is identified.	>2.5km	Outstanding or high for: <ul style="list-style-type: none"> Overall evaluation 	Overall evaluation
Geological Landscape	Aspect area in which the turbine(s) is located. Immediately adjacent aspect areas where a special relationship is identified.	>2.5km	Outstanding or high for: <ul style="list-style-type: none"> Overall evaluation 	Overall evaluation Rarity/uniqueness
Landscape Habitats	Aspect area in which the turbine(s) is located. Immediately adjacent aspect area if connectivity / cohesion is identified.	>2.5km	Outstanding or high for: <ul style="list-style-type: none"> Overall evaluation 	Overall evaluation Connectivity/cohesion
Visual and Sensory	Aspects areas from which the development would be visible.	Study area according to typology as defined in Table 2	Outstanding or high in any of the following: <ul style="list-style-type: none"> Scenic quality Character Overall evaluation 	Overall evaluation Scenic quality Character
Historic Landscape	Aspects areas from which the development would be visible.	Study area according to typology as defined in Table 2	Outstanding or high for: <ul style="list-style-type: none"> Overall evaluation 	Overall evaluation

Other useful guidance

Pembrokeshire and Carmarthenshire: Cumulative Impact of Wind Turbines on Landscape and Visual Amenity guidance
Carmarthenshire County Council, Pembrokeshire Coast National Park Authority, Pembrokeshire County Council 2013

This guidance is considered in more detail in the following section on cumulative assessments.

Designing Wind Farms in Wales
Design Commission for Wales 2012

The purpose of this document is to set out the design objectives and considerations for the sensitive development of large scale wind farms and ancillary development in Wales. Although the current guidance is concerned with smaller scale developments some of the principles in *Designing Wind Farms in Wales*, in particular those within the section on cumulative impacts, are relevant to smaller developments.

Scottish Guidance

A number of guidance documents have been produced by Scottish Natural Heritage. These are specific to Scotland and the Scottish landscape and cover issues other than landscape and visual impact assessment. Some of them have been prepared with larger scale wind farm developments in mind. However, many of the principles are relevant to wind turbine development in Wales. In particular the following documents are useful:

Siting and designing windfarms in the landscape, Version 2
Scottish Natural Heritage 2014

Siting and design for small scale wind turbines between 15 and 50 metres in height
Scottish Natural Heritage 2012

Assessing the Cumulative Impact of Onshore Wind Energy Developments
Scottish Natural Heritage 2012

Photomontage Guidance

There are currently two sets of guidance with regard to the preparation of wind turbine photomontages and an advice note from the Landscape Institute on the general use of Photography and Photomontages in Landscape and Visual Assessment. Both sets of guidance are for wind turbine development in Scotland and the Scottish Natural Heritage guidance is intended for commercial scale wind farms. However both provide useful advice for the preparation of photomontages for smaller scale wind turbines and photomontages prepared according to either guidance would be acceptable.

Part Three: Minimum Requirements and Standard of Information for LVIA's

Section D: Cumulative Assessment

Cumulative Landscape and Visual Impact Assessment

All wind turbine development applications need to consider whether a CLVIA is required. A CLVIA will be required if there are operational, consented or in planning turbines (OCP) within the defined search areas set out in **Table 7: Cumulative Study and Search Areas**.

There are two principles underlying Table 7:

- The potential for cumulative impacts is a function of both distance and the height of the turbines. Therefore smaller turbines only need to be considered when they are close to the application turbine(s). Larger turbines potentially have a landscape and visual effect over a much greater distances and therefore it is necessary to consider larger turbines at greater distances from the application turbine(s). The Online Database should enable a quick identification of OCP turbines of different heights.
- Turbines located beyond the study area may have cumulative impacts within the study area. Therefore the area of search is larger than the study area.

Table 7 sets out the search areas for cumulative assessments. Figure 3 provides a diagrammatic representation of how developments outside the study area may give rise to cumulative impacts within it.

The methodology for undertaking a cumulative assessment should be based on the approach set out in *Pembrokeshire and Carmarthenshire: Cumulative Impact of Wind Turbines on Landscape and Visual Amenity guidance* (Pembrokeshire and Carmarthenshire CLVIA guidance) prepared for Carmarthenshire County Council, Pembrokeshire Coast National Park Authority, and Pembrokeshire County Council 2013. CLVIAs should also reflect best practice as set out in GLVIA3.

Figure 3 is derived from Figure 6 of the Pembrokeshire and Carmarthenshire CLVIA guidance.

Developers should refer to the approach adopted in that guidance when undertaking a cumulative assessment although the search and study areas considered should be as set out in this guidance.

Landscape Objectives

The Pembrokeshire and Carmarthenshire CLVIA guidance sets out a number of key objectives for the landscape which have been largely adopted for this guidance.

The key objectives are:

- To maintain the integrity and quality of landscape character within nationally designated landscapes:
 - no significant adverse change to the special qualities and sensitive characteristics from cumulative wind turbine development. The threshold for acceptable change in these areas is likely to be low.*
- In other landscapes outside the strategic search areas, to maintain the landscape character:
 - no significant adverse change in landscape character from cumulative wind turbine development. Significant change here is taken to mean where wind turbines become either the dominant or a key characteristic of a landscape, depending on its sensitivity which shall be defined by the assessment.*
- Within the strategic search area, to accept landscape change:
 - significant change in the landscape character from wind turbine development although not all areas may be suitable and there is still a role for best positioning in the landscape.*
- To avoid development which, in combination, creates the experience of a settlement being in a wind turbine landscape, such as wind turbines on two or more sides.
- To avoid development cumulatively creating significant adverse effects on sensitive landscape or visual receptors as defined in Part 2 of this guidance.
- To avoid turbines of markedly different designs or scales being located or viewed in juxtaposition with each other.
- To avoid significant adverse effects when viewed in conjunction with other types of development.

Table 7: Study Areas and Cumulative Search Areas

Turbines that are operational, consented or in planning can be scoped out if they are outside the search area relevant to their typology.

For example:

- no micro turbines beyond 2km need to be considered in CLVIA;
- no small turbines beyond 8km needs to be considered in CLVIA;
- no medium turbines beyond 12km need to be considered in CLVIA.

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The cumulative landscape assessment should provide an assessment of combined and additional cumulative landscape effects focussing mainly on interaction with closest turbines. The assessment should identify:

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