# Appendix 12.2

Methodology

## Introduction

"*Landscape and Visual Impact Assessment is a tool used to identify and assess the significance of and the effects of change resulting from development on both the landscape as an environmental resource in its own right and people's views and visual amenity.*" (GLVIA3, paragraph 1.1). Wherever possible, identified effects are quantified, but the nature of landscape and visual assessment requires interpretation by professional judgement. In order to provide a level of consistency to the assessment, the prediction of magnitude and assessment of significance of the residual landscape and visual effects have been based on pre-defined criteria.

The Guidelines for Landscape and Visual Assessment (Third Edition) (GLVIA3) states that "*professional judgement is a very important part of the LVIA*" (paragraph 2.23) and that "*in all cases there is a need for the judgements that are made to be reasonable and based on clear and transparent methods so that the reasoning applied at different stages can be traced and examined by others.*" (paragraph 2.24). It goes on at paragraph 3.32 to state that "*there are no hard and fast rules about what effects should be deemed 'significant' but LVIAs should always distinguish clearly between what are considered to be the significant and non-significant effects.*"

Landscape and Visual Assessments are separate, though linked procedures. The assessment of the potential effect on the landscape is carried out as an effect on the environmental resource (i.e. the landscape). Visual effects are assessed as an inter-related effect on population.

Landscape effects derive from changes in the physical landscape elements which may give rise to changes in its distinctive character and how this is experienced, including consideration of aesthetic and perceptual aspects.

Visual effects relate to changes that arise in the composition of available views as a result of changes to the landscape, to people's responses to the changes and to the overall effects with respect to visual amenity.

## Landscape Effects

The starting point for any assessment is a desk based assessment of published landscape assessments. These documents are listed in the Guidance section of this assessment and mapped in figures supporting the assessment.

The baseline for consideration of landscape effects is the current landscape character, at the time of the assessment. Operational turbines are considered as part of the baseline and included as part of the assessment of landscape and visual effects.

The future baseline is considered to be other consented turbine proposals which are not present in the landscape. These have been included as part of the cumulative assessment due to the increased degree of uncertainty regarding their status.

The landscape effects of the proposed development are considered against the key characteristics of the receiving landscape. The degree to which the proposed development changes '*the distinct and recognisable pattern that makes one landscape different from*

*another, rather than better or worse*' (Countryside Agency and SNH, 2002), enables a judgement to be made as to the significance of the effect in landscape character terms.

Direct and indirect landscape effects are defined in GLVIA3. Direct effects may be defined as resulting "*directly from the development itself*" (paragraph 3.22). An indirect (or secondary) effect is one that results "*from consequential change resulting from the development*" (paragraph 3.22) and is often produced away from the site of the proposed development or as a result of a complex pathway or secondary association. The direct or physical landscape effects of the proposed development would generally be limited to within the planning application boundary or around the base of the proposed turbines and cable trenches to a substation building and/or grid connection. The indirect landscape effects are concerned with the visual effects and relate to effects associated with the introduction of the development seen in the context of the existing landscape and visual character of the view.
In order to reach an understanding of the effects of development upon the landscape resource it is necessary to consider different aspects of the landscape baseline including:

- Landscape Fabric/Elements: The individual features of the landscape, such as hills, valleys, woods, hedges, tree cover, vegetation, buildings and roads for example which can usually be described and quantified.

- Landscape key characteristics: The particularly notable elements or combinations of elements which make a particular contribution to defining or describing the character of an area, which may include experiential characteristics such as wildness and tranquillity.

- Landscape value: The importance attached to a landscape, often used as a basis for designation or recognition which expresses national or regional consensus, because of its special qualities/attributes including aesthetic or perceptual aspects such as scenic beauty, tranquillity or wildness, cultural associations or nature conservation interest. The absence of landscape planning designation should not assume an area of 'low' landscape value. Other factors which influence the value of a landscape include its quality/condition, the presence of any rare elements or rarity of the landscape type itself, whether it is a particularly representative example of landscape type and if there is any evidence that the landscape is valued for recreation where the landscape experience is important or for any specific cultural associations.

The sensitivity of the landscape to a particular development considers the susceptibility of the landscape and its value. The overall sensitivity is described as high, medium or low. This is assessed by taking into account the existing landscape value, and susceptibility to change, which often vary depending on the type of development proposed and the particular site location, such that sensitivity needs to be considered on a case by case basis. This should not be confused with 'inherent sensitivity' where areas of the landscape may be referred to as inherently of 'high' or 'low sensitivity. For example a National Park may be described as inherently of high sensitivity on account of its designation, but it may prove to be less sensitive to particular development and/or the design of that development. Alternatively an undesignated landscape may be of high sensitivity to a particular development and/or the design of that development regardless of the lack of local or national designation.

Landscape susceptibility according to GLVIA3 means "*the ability of the landscape to accommodate the Proposed Development without undue consequences for maintenance of the baseline situation and/or the achievement of landscape planning policies and strategies*". Judgements on landscape susceptibility include references to both the physical and aesthetic characteristics and the potential scope for mitigation that would be in character with the

landscape. Landscape susceptibility varies according to different areas of landscape character.

Whilst accepting that wind farm development is likely to lead to high levels of change in most circumstances, factors that commonly indicate a lower landscape susceptibility to wind farm development include landscape characteristics of larger scale, uniformity, simple landforms and skylines with limited landscape features. Generally speaking lower landscape susceptibility together with lower landscape value tends to indicate lower landscape sensitivity to development. Conversely higher landscape susceptibility and value tends to indicate a higher landscape sensitivity to development.

The judgements regarding susceptibility and value of the landscape receptor are identified within the sensitivity tables included within Appendix 6e to this assessment. These relationships can be complex and value alone does not automatically or by definition have high susceptibility to all types of change. Examples and further guidance on the evaluation of landscape sensitivity are provided below:

- **High:** Landscape character, characteristics and elements which would generally be of higher susceptibility to change to accommodate the proposed type of development and higher landscape value. These are landscapes that may be considered to be of particular importance to conserve and which may be particularly sensitive to change if inappropriately dealt with.

- **Medium:** Landscape character, characteristics and elements where there would be a medium susceptibility and be valued at a regional or community level. These might include landscapes which may be or may not be locally designated.

- **Low:** Landscape Character, characteristics and elements where there would be of lower susceptibility to change to accommodate the proposed type of development. Usually applies to landscapes which are unlikely to be designated by the local authority.

Where, taking into account the component judgments about the value and susceptibility of the landscape receptor, sensitivity is judged to lie between levels, an intermediate assessment will be adopted.

The magnitude of landscape change arising from the proposed development at any particular location is assessed in terms of its size or scale, geographical extent of the area influenced and its duration and reversibility. With regard to the size or scale of the change, these are largely quantifiable parameters, as follows:

- degree of loss or alteration to key landscape features/elements or characteristics;

- distance from the development;

- landscape backdrop to the development;

- landscape context of other built development, particularly vertical elements.

Having established the size/scale of change to the landscape baseline (large, medium, small), the geographical extent of the change can be identified (large, medium, small).

Finally the duration and reversibility of the landscape change is considered. Duration can be judged on a time basis appropriate to the nature of the assessment. Reversibility is a judgement about the ability and practicality of the proposed development to be fully

reversible (such as wind farms), partially reversible to something similar (such as mineral extraction) or a permanent change in the landscape (such as housing). These can be linked or not according to the nature of the development and how long the change will last.

Wind energy applications are typically for a 25 year operational period, and while this is not permanent it can properly be described as long term. Landscape and visual effects can be reversed and following decommissioning there would be no residual landscape and visual effects. The wind turbines should therefore be regarded as a long term reversible addition to the landscape, preserving the choice for future generations whether or not to retain what might be regarded as the landscape fabric of today.
In order to differentiate between different levels of magnitude the following definitions are provided:

**Table 6.1: Magnitude of Change – The Landscape Resource**

| | |
|---|---|
| **Substantial** | A prominent change that may be large in scale and/or extent and include the loss of key landscape elements/features/characteristics of the baseline or introduction of uncharacteristic elements which would give rise to a fresh characterising effect. The effects could be long term and/or irreversible. |
| **Moderate** | A noticeable change of more limited scale and extent including the loss of some key landscape elements/features/characteristics and/or the addition of some new uncharacteristic features or elements that would lead to the potential for change in landscape character in a localised area or part of a landscape character area. The effects could be long to medium term and/or partially reversible. |
| **Slight** | A change affecting a small area of landscape character including the loss of lower value landscape elements or the addition of new features or elements of limited characterising influence. The effects could potentially be medium to short term and/or reversible |
| **Negligible** | A change affecting smaller areas of landscape character including the loss of some landscape elements or the addition of features or elements which are either of low value or hardly noticeable. The effects could be short term and/or reversible. |

The significance of the effect on the landscape resource may be determined by correlating the magnitude of the landscape effect (substantial, moderate, low or negligible) with the sensitivity of the landscape resource (high, medium or low). The following table sets out the main correlations between magnitude and sensitivity.

**Table 6.2: Significance of Landscape Effects**

| Landscape Sensitivity | Magnitude of Change | | | | |
|---|---|---|---|---|---|
| | | **Substantial** | **Moderate** | **Slight** | **Negligible** |
| | **High** | **Major** | **Major/ Moderate** | **Moderate** | **Minor** |
| | **Medium** | **Major/ Moderate** | **Moderate** | **Moderate/ Minor** | **Minor/ negligible** |
| | **Low** | **Moderate** | **Moderate/ Minor** | **Minor** | **Negligible** |

### Significance of Landscape Effects

The significance of any identified landscape or visual effect has been assessed in terms of major, moderate, minor or negligible. These categories are based on the juxtaposition of landscape sensitivity with the predicted magnitude of change. This matrix should not be used as a prescriptive tool but must allow for the exercise of professional judgement. Thus, in some instances a particular parameter may be considered as having a determining effect on the analysis.

The approach to assessing effects on landscape character is to consider the key characteristics for the Landscape Character Type (LCT) within which the proposed development is located (host) or the adjacent LCT's (non-host) and identify which of these the proposed development would affect. For the host LCTs, where the wind farm proposal is located, a significant change in landscape character is likely to occur where valued elements or key characteristics would be lost, superseded or substantially changed. Where particular views are an essential characteristic of a landscape type, significant landscape character effects may occur where the proposed development becomes a defining characteristic of those views. This will depend on the key characteristics of the landscape and nature, extent and duration of the effects that would be brought about by the proposed development.

Further from the proposals the wind farm may still be a clearly noticeable element in the landscape; however, the characterising influence of the wind turbines would be of a decreasing intensity. The baseline landscape character would remain intact and the wind turbines would be perceived as a new element in the landscape alongside the pre-existing characteristics without altering them.

Where the landscape effect has been classified as Major or Major/Moderate this is considered to be equivalent to significant effects.

In this way, the assessment is carried out transparently and systematically. It establishes at what level in the assessor's opinion 'significant effects' arise. It also permits the reader to follow the approach and determine whether or not there is agreement with the judgements made.

### Visual Effects

In order to identify the significance of a visual effect it is necessary to establish the relative sensitivity of the viewers and the magnitude of the change they experience. In this case sensitivity is a combination of both susceptibility of the viewer to the proposed development and the value of the views obtained.

Those living within view of the scheme are usually regarded as the highest susceptibility group as well as those engaged in outdoor pursuits for whom landscape experience is the primary objective. The susceptibility of potential visual receptors will also vary depending on the activity of the receptor.

The value of public views, which is the focus of GLVIA3, will vary depending on the nature, location and context of the view and the recognised importance of the view. Typically, those views of nationally valued landscapes or nationally important viewpoints will likely be of the highest value. Generally, those views of regionally important landscapes or viewpoints would likely be considered of medium value. Whilst those views of landscapes important to local communities, but have no formal planning status would tend to be of lower value, depending on their scenic quality.

Judgements made with regard to the value of views experienced by private residents is considered separately. Views in a rural context where properties are positioned to take advantage of the views would generally be considered to be of higher value. Views in a semi-rural context or where properties are positioned to take some but not full advantage of views would be considered of medium value. Views in an urban or industrial context or where properties are not positioned to take advantage of views would be considered of lower value.
Visual receptor sensitivity is defined as high, medium, or low in accordance with the criteria in Table 6.3. Where, taking into account the component judgments about the value and susceptibility of the visual receptor, sensitivity is judged to lie between levels, an intermediate assessment will be adopted.

**Table 6.3: Visual Sensitivity Criteria**

| | |
|---|---|
| **High sensitivity** | Residents in rural context; users of outdoor recreation focussed on the appreciation of views including footpaths, and national cycleways; people experiencing views from important landscape features of physical, cultural or historic interest, beauty spots and picnic areas of high value landscapes. |
| **Medium sensitivity** | Local road users and travellers on trains experiencing views of high or medium value landscapes. People engaged in outdoor recreation with some appreciation of the landscape e.g. road cycling, nature conservation, golf and water based recreation. |
| **Low sensitivity** | Workers, users of facilities and commercial buildings (indoors) experiencing views from buildings. Road and rail users on fast moving commuting or trunk routes. Visual receptors where views are incidental and tend to be of lower value. |

The magnitude of change arising from the proposed development at any particular viewpoint is described as substantial, moderate, slight or negligible based on a number of interrelated and largely quantifiable parameters, including:

- distance of the viewpoint from the development;
- extent of the development in the view;
- angle of view in relation to main receptor activity;
- proportion of the field of view occupied by the development;

- height of development relative to the receptor with reference to the scale of other features in the view;
- extent of other built development visible, particularly vertical elements background to the development; and
- duration of view or visual effect.

It is assumed that the change would be seen in clear visibility and the assessment is carried out on that basis. Where there are operational turbines considered as part of the baseline, the visual effects within the main LVA consider the additional effects of the proposed development only. Where appropriate, comment may be made on lighting and weather conditions. In order to differentiate between different levels of magnitude the following definitions are provided in Table 6.4.

**Table 6.4: Magnitude of Change – Visual Receptors**

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|---|---|
| **Substantial** | Substantial change, where the proposals would be prominent or very prominent, leading to substantial obstruction of existing view or complete change in character and composition of the baseline though removal of key elements or addition of uncharacteristic elements which may or may not be visually discordant. This change could be long term or of a long duration. |
| **Moderate** | Moderate change in the view may involve partial obstruction of existing view or partial change in character and composition of the baseline through the introduction of new elements or removal of existing elements. Change may be readily noticeable but not substantially different in scale and character from the surroundings and wider setting. It may involve partial change in character and composition of the baseline existing view. This change could be medium term or of a medium duration. |
| **Slight** | The proposals would be partially visible or visible at sufficient distance to be perceptible and result in limited or minor changes to the view. The character and composition, although altered, will be similar to the baseline existing situation. This change could be short term or of a short duration. |
| **Negligible** | Change would be barely distinguishable from the surroundings. The composition and character of the view would be substantially unaltered, approximating to little or no change. |

The threshold for significance of visual effects relies to a great extent on professional judgement. Criteria and local circumstances require close study and careful judgement.

The following table sets out the main correlations between magnitude and sensitivity.

**Table 6.5: Significance of Visual Effects – Matrix**

| Visual Receptor Sensitivity | Magnitude of Change | | | | |
|---|---|---|---|---|---|
| | | **Substantial** | **Moderate** | **Slight** | **Negligible** |
| | **High** | **Major** | **Major/ Moderate** | **Moderate** | **Minor** |
| | **Medium** | **Major/ Moderate** | **Moderate** | **Moderate/ Minor** | **Minor/ negligible** |
| | **Low** | **Moderate** | **Moderate/ Minor** | **Minor** | **Negligible** |

### Significance of Visual Effects

The significance of any identified visual effect has been assessed in terms of major, moderate, minor or negligible. These categories are based on the juxtaposition of viewpoint or landscape sensitivity with the predicted magnitude of change. This matrix should not be used as a prescriptive tool but must allow for the exercise of professional judgement. Thus in some instances a particular parameter may be considered as having a determining effect on the analysis.

Where the visual effect has been classified as Major or Major/Moderate this is considered to be equivalent to likely significant effects.

In this way, the assessment is carried out transparently and systematically. It establishes at what level in the assessor's opinion 'significant effects' arise. It also permits the reader to follow the approach and determine whether or not there is agreement with the judgements made.

The conclusion that some effects are 'significant' must not be taken to imply that they should warrant refusal in any decision making process which relies on the EIAR.

### Beneficial/Adverse

Landscape and visual effects can be beneficial or adverse and in some instances may be considered neutral. Beneficial effects upon landscape receptors may result from changes to the landscape involving positive enhancement measures, or through the addition of well-designed elements, which add to the landscape experience or sense of place in a complementary manner. The landscape impacts are considered against the landscape baseline, taking account of landscape strategies or objectives, where such they exist. Taking a precautionary stance changes to rural landscapes involving construction of man-made objects of a large scale are generally considered to be negative, as they are not usually actively promoted as part of a district wide landscape strategy and therefore the assessment of landscape effects are assumed to be adverse, unless specified otherwise in the text.

With regard to the visual effects of wind farms, it is important to recognise the differing views revealed by extensive available research and to take into account that for the same development, some may view the impact as adverse, some as beneficial and yet others as neutral. This depends to some extent on the viewer's predisposition towards landscape change but also the principle of renewable energy development including wind farms in the landscape. Taking a precautionary approach in making an assessment of the 'worst case scenario', the assessment considers that all effects on views which would result from the

construction and operation of the proposed development to be adverse, unless specified otherwise in the text. It is noted however that not all people would consider the effects to be adverse.

## Cumulative Assessment

### General Approach

In a broad generic sense, cumulative impacts 'result from the incremental changes caused by other past, present or reasonably foreseeable actions together with the project.'[1] An assessment of cumulative effects should focus on whether there are any potential cumulative impacts which are reasonably foreseeable and which are likely to influence the decision making of the proposed development, rather than an assessment of every potential cumulative effect[2].

Cumulative landscape and visual effects for wind farms tend to arise in three reasonably distinct ways:

- Firstly, the effect of an extension of an existing development or the positioning of a new development such that it would give rise to an extended and/or intensified impression of the original wind farm in the landscape as seen from fixed locations.

- Secondly, cumulative effects can arise through an increase in the perceptions of wind farm development as seen from fixed points from which more than one wind farm would now be seen in different parts of the landscape.

- Thirdly, an increase in the incidence of sequential perceptions of different turbines can occur through the recurrence of images and impressions arising from developments which are located at various points in the landscape and which are encountered when moving through it.

The Cumulative Landscape and Visual Assessment is organised in the following sections:

- Methodology – a brief outline of general methodology for cumulative assessment, with reference to established guidance;

- Scope of Assessment – outlining the study area, selection of projects for assessment, selection of receptors for assessment and sources of information;

- Viewpoint Analysis – includes a detailed analysis of cumulative effects at each of the cumulative viewpoints with the consented baseline and with all the other proposals assuming they are consented and constructed;

- Composite Cumulative Landscape and Visual Effects – which considers the potential overall cumulative effects assuming the fully consented baseline and the scenario where all the projects where applications have been submitted are consented and constructed; and

- Conclusions.

1 GLVIA3 page 120, paragraph 7.1 quoting Hyder, 1999 ' *Guidelines for the assessment of indirect and cumulative impacts as well as impact interactions*'

[2] GLVIA3 page 121 paragraph 7.5 and SNH Guidance on 'Assessing the Cumulative Impact of Onshore Wind Energy Developments' March 2012, page 8, paragraph 33.

### Stage One: Baseline Assessment

The first stage of the assessment is to review the existing landscape and visual amenity of the study area. This establishes the baseline or future baseline against which to review the magnitude and significance of cumulative landscape and visual effects of the proposed development. The baseline information includes landscape planning policy overview, designations, and description of landscape character types and potential visual receptors within the study area. The baseline landscape and visual assessment is presented within the Landscape and Visual Assessment (LVIA), Chapter 12 of the EIAR and has not been repeated here, but is of relevance. The operational wind turbines within the study area are included within the baseline assessment.

### Stage Two: Prediction of Cumulative Effects

The prediction of landscape and visual effects involves analysis from fixed positions and sequential views from route corridors passing through the study area.

The combined cumulative effects of the proposed development are presented within this assessment, as many stakeholders and communities tend to be '*concerned about the totality of the cumulative effect of past, present and future proposals.*'[3] However, this part of the assessment is focused on the likely significant cumulative effects, in order to keep this task to a manageable scale.

It is important to differentiate between the assessment of cumulative effects arising from Meenbog with projects that are operational or under construction, which has been included as part of the baseline assessed in the LVIA chapter, those which are consented and can be considered as part of a scenario with some certainty and those that are proposed and therefore about which there can be little certainty. Accordingly the cumulative assessment distinguishes between; the predicted cumulative effects arising from Meenbog with operational wind farms (which has been included as part of the LVIA); the effects arising from Meenbog with the operational and consented wind turbines; and finally, the effects arising from Meenbog with the operational, consented and other proposed wind farms. It should be noted that the assessment includes only limited consideration of proposals at scoping stage, as there is no certainty that these proposals will progress to planning submissions and the nature of the proposed schemes may be subject to change.

### Study of Fixed Positions

The analysis of potential cumulative effects from fixed positions involved consideration of the predicted visibility of all other wind farm developments from all the viewpoints within the LVIA. Viewpoints were then selected to be representative of potential cumulative effects experienced at different distances and directions from the site, as well as from the various landscape character types/areas within the study area and include:
Locations where simultaneous or combined visibility may occur. This is where two or more wind farms may be visible in the same field of view. It should be noted that there may be a need to differentiate between situations where one wind farm may be perceived to be an intensification or extension of another and where they may have a clear separating gap between them; and

Locations where successive or repetitive visibility occurs. This is where the observer may be able to see two or more wind farms from one viewpoint, but has to move his or her head to do so.

The viewpoint analysis includes descriptions of the existing and predicted view, analysis of magnitude of change and the effects on visual amenity with reference to Cumulative

[3] GLVIA3, page 123, paragraph 7.16

Wireframe Visualisations. This approach to cumulative viewpoint analysis should be qualified, as viewpoints tend to be focused on the Meenbog site and this is reflected in the relative contribution the proposed Meenbog wind farm makes to cumulative effects at each of the assessment viewpoints.

### Sequential Visual Assessment

Sequential or recurring visual effects occur in the changing views from route corridors passing through the study area where movement results in changing visibility of other developments or different views of the same development. The study of such effects is considered with reference to field observations from travelling along the main routes within the study area, however most detail is afforded to those routes in close proximity to the site where significant effects are more likely. This involves consideration of the sequential effects experienced by road users and users of long distance footpaths and may also include the effects experienced by users of railways, cycleways and other recreational routes.

### Stage 3: Assessment of Significance

The aim of the CLVIA assessment is to identify, predict and evaluate likely significant cumulative effects arising from the proposed development in the context of other proposed wind energy developments in the surrounding area. Wherever possible, identified effects are quantified, but the nature of landscape and visual assessment requires interpretation by professional judgement. In order to provide a level of consistency to the assessment, the prediction of magnitude and assessment of significance of the residual landscape and visual effects have been based on pre-defined criteria. This approach follows the assessment criteria set out above.

The additional parameters used to evaluate the cumulative magnitude of change at representative viewpoints include consideration of:

- Number of baseline/ proposed wind farms in the view;
- Distance to each of the baseline/ proposed wind farms;
- Direction of the baseline/ proposed wind farms relative to the viewpoint;
- Horizontal angle of view occupied by each of the baseline/ proposed developments;
- Relative composition and scale of the baseline/ proposed wind farms.

The viewpoint assessment may make reference to the number of 'quadrants' in which wind farms may be visible, where a quadrant equates to 90 degrees of the total available 360 degree view. This has been used as a tool to assist in the evaluation of the extent to which wind farms would be visible in different directions from any given viewpoint position.

The significance of any cumulative landscape and visual effect will be assessed in terms of major, moderate, minor or negligible. These categories have been based on combining visual or landscape sensitivity and predicted magnitude of change to determine the significance of effects as set out above. Where the landscape or visual effect has been classified as major or major/moderate this is considered to be equivalent to likely significant effects.

In landscape terms, significant cumulative effects would occur when the presence of additional wind farm development would extend the geographical limits of existing character effects or when the added presence of the proposed development would be sufficient to combine local characterising effects into a more substantial landscape type or sub-type, or to transform or redefine the baseline landscape character.

Significant cumulative visual effects would potentially arise where there is a reasonable portion of the Meenbog wind farm visible and the clear presence of other wind farms within a realistic viewing range that would exert a significant effect in their own right or a less than significant magnitude of influence such that the addition of the Meenbog wind farm would raise this to a visually significant level.

As with many aspects of landscape and visual assessment, an effect may be locally significant or significant with respect to a small number of receptors, but may not be significant when judged in a wider context. The conclusion that some effects are 'significant' must not be taken to imply that they should warrant refusal in any decision making process.

## ANNEX 1: GLOSSARY OF TERMS

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| **CLVIA** | **Cumulative Landscape and Visual Impact Assessment.** |
| **Cumulative Effects** | **Cumulative effects are the additional effects arising from changes caused by a development in conjunction with other past, present or reasonably foreseeable actions.** |
| **Direct Effect** | **A direct (or primary) effect may be defined as an effect that is directly attributable to the development.[4]** |
| **GLVIA3** | **'Guidelines for Landscape and Visual Impact Assessment, Third Edition', published jointly by the Landscape Institute and Institute of Environmental Management and Assessment 2013.** |
| **Indirect Effect** | **An indirect (or secondary) effect is an effect that results indirectly from the proposed project as a consequence of the direct effect, often occurring away from the site, or as a result of a sequence of interrelationships or a complex pathway. They may be separated by distance or in time from the source of the effects. [5]** |
| **Key Characteristics** | **Those combinations of elements which are particularly important to the current character of the landscape and help to give an area its particularly distinctive sense of place.** |
| **LVIA** | **Landscape and Visual Impact Assessment.** |
| **Landscape Capacity** | **The amount of change which a particular landscape character type or area is able to accommodate without significant detrimental effects on its character. Capacity is likely to vary according to the type and nature of change proposed.** |
| **Landscape Character** | **The distinct and recognisable pattern of elements in the landscape that makes one landscape** |

[4] The Landscape Institute/Institute of Environmental Management and Assessment; *Guidelines for Landscape and Visual Impact Assessment*; Spon; 2013; p155

[5] The Landscape Institute/Institute of Environmental Management and Assessment; *Guidelines for Landscape and Visual Impact Assessment*; Spon; 2013; p156

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| | **different from another, rather than better or worse.** [6] |
| **Landscape Character Areas** | **These are single unique areas which are the discrete geographical areas of a particular landscape type.** [7] |
| **Landscape Character Types** | **These are distinct types of landscape that are relatively homogeneous in character. They are generic in nature in that they may occur in different areas in different parts of the country, but wherever they occur, they share broadly similar combinations of geology, topography, drainage patterns, vegetation and historical land use and settlement pattern, and perceptual and aesthetic attributes.** |
| **Landscape Effects** | **Effects on the landscape as a resource in its own right.** [8] |
| **Landscape Elements** | **Individual components which make up the landscape such as trees and hedges.** |
| **Landscape Features** | **Particularly prominent or eye-catching elements, like tree clumps, church towers or wooded skylines.** |
| **Landscape Quality or Condition** | **This is a measure of the physical state of the landscape. It may include the extent to which a typical character is represented in individual areas, the intactness of the landscape and the condition of individual elements.** [9] |
| **Landscape Receptor** | **Defined aspects of the landscape resource that have the potential to be affected by a proposal.** |
| **Landscape Resource** | **The combination of elements that contribute to landscape context, character and value.** |
| **Landscape Value** | **The relative value or importance attached to different landscapes by society. A landscape may** |

[6] The Landscape Institute/Institute of Environmental Management and Assessment; *Guidelines for Landscape and Visual Impact Assessment*; Spon; 2013; p156

[7] The Landscape Institute/Institute of Environmental Management and Assessment; *Guidelines for Landscape and Visual Impact Assessment*; Spon; 2013; p157

[8] The Landscape Institute/Institute of Environmental Management and Assessment; *Guidelines for Landscape and Visual Impact Assessment*; Spon; 2013; p157

[9] The Landscape Institute/Institute of Environmental Management and Assessment; *Guidelines for Landscape and Visual Impact Assessment*; Spon; 2013; p157

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| | **be valued by different stakeholders for a whole variety of reasons.** [10] |
| **Level of Effect** | **Determined through the combination of sensitivity of the receptor and the proposed magnitude of change brought about by the development.** |
| **Magnitude (of effect)** | **A term that combines judgements about the size and scale of the effect, the extent of the area over which it occurs, whether it is reversible or irreversible and whether it is short or long term in duration.** |
| **Mitigation** | **Measures including any process, activity or design to avoid, reduce, remedy or compensate for adverse environmental impact or effects of a development.** |
| **Photomontage** | **A visualisation which superimposes an image of a proposed development upon a photograph or series of photographs.** |
| **Residential Visual Amenity** | **A collective term describing the views and general amenity of a residential property, relating to the garden area and main drive, views to and from the house and the relationship of the outdoor space to the house. Residential Visual Amenity is only one component of the overall Residential Amenity, others being for example noise, shadow flicker and access amongst others.** |
| **Residual Effects** | **Potential environmental effects remaining after mitigation.** |
| **Sense of Place** | **The essential character and spirit of an area: genius loci literally means 'spirit of the place'.** |
| **Sensitivity** | **A term applied to specific receptors, combining judgements of the susceptibility of the receptor to the specific type of change or development proposed and the value related to that receptor.** [11] |
| **Significant Effects** | **It is a requirement to determine the likely significant effects of development on the environment which should relate to the level of an effect and the type of effect. Where possible significant effects should be mitigated.** |

[10] The Landscape Institute/Institute of Environmental Management and Assessment; *Guidelines for Landscape and Visual Impact Assessment*; Spon; 2013; p157

[11] The Landscape Institute/Institute of Environmental Management and Assessment; *Guidelines for Landscape and Visual Impact Assessment*; Spon; 2013; p157

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|---|---|
| | **The significance of an effect gives an indication as to the degree of importance (based on the magnitude of the effect and sensitivity of the receptor) that should be attached to the impact described.** |
| | **Whether an effect should be considered significant is not absolute and requires the application of professional judgement.** |
| **Type or Nature of Effect** | **Whether an effect is direct, indirect, temporary or permanent, positive (beneficial), neutral or negative (adverse) or cumulative.** |
| **Visual amenity** | **Value of a particular place in terms of what is seen by visual receptors taking account of all available views and the total visual experience.** |
| **Visual Effect** | **Effects on specific views and on the general visual amenity experienced by people.** [12] |
| **Visual Receptors** | **Individuals and/or defined groups of people who have the potential to be affected by a proposal.** |
| **Visualisation** | **Computer simulation, photomontage or other technique to illustrate the appearance of a development.** [13] |
| **Wildness** | **A landscape which may appear to be remote, inaccessible and rugged with little evidence of human influence.** [14] |
| **Wireframe or Wireline** | **A computer generated line drawing of the DTM (Digital Terrain Model) and the proposed development from a known location.** |
| **Zone of Theoretical Visibility (ZTV)** | **Area within which a proposed development may have an influence or an effect on visual amenity.** [15] |

[12] The Landscape Institute/Institute of Environmental Management and Assessment; *Guidelines for Landscape and Visual Impact Assessment*; Spon; 2013; p158

[13] The Landscape Institute/Institute of Environmental Management and Assessment; *Guidelines for Landscape and Visual Impact Assessment*; Spon; 2013; p158

[14] SNH, *Siting and Designing Wind Farms in the Landscape*; SNH, 2014, p15

[15] The Landscape Institute/Institute of Environmental Management and Assessment; *Guidelines for Landscape and Visual Impact Assessment*; Spon; 2013; p158