

APPENDIX 7.1: LVIA METHODOLOGY

INTRODUCTION

- A7.1.1 This appendix presents the assessment criteria adopted for the appraisal of landscape and visual effects arising from the proposed Talladh-a-Bheithe Windfarm development.
- A7.1.2 The primary source of best practice for LVIA in the UK has recently been updated and is now *The Guidelines for Landscape and Visual Impact Assessment, 3rd Edition (GLVIA3)* (Landscape Institute and the Institute for Environmental Management and Assessment, 2013). The assessment criteria adopted to inform the appraisal of effects has been developed in accordance with the principles established in this best practice document. It should however be acknowledged that GLVIA3 establishes guidelines not a specific methodology. The preface to GLVIA3 states:
- 'This edition concentrates on principles and processes. It does not provide a detailed or formulaic 'recipe' that can be followed in every situation – it remains the responsibility of the professional to ensure that the approach and methodology adopted are appropriate to the task in hand.'*
- A7.1.3 The criteria set out below have therefore been developed specifically for this appraisal to ensure that the methodology is fit for purpose.
- A7.1.4 The purpose of an LVIA when undertaken in the context of an EIA is to identify any likely significant landscape and visual effects arising as a result of the proposals. An LVIA must consider both:
- effects on the landscape as a resource in its own right (the **landscape effects**); and
 - effects on specific views and visual amenity more generally (the **visual effects**).
- A7.1.5 Therefore, separate criteria are set out below for the assessment of landscape and visual effects.

NATURE (SENSITIVITY) OF LANDSCAPE FEATURES

- A7.1.6 The nature or sensitivity of an individual landscape feature or element reflects its susceptibility to change and any values associated with it. It is therefore a function of factors such as its quality, rarity, contribution to landscape character, degree to which the particular element can be replaced and cultural associations or designations that apply. A particular feature may be more 'sensitive' in one location than in another often as a result of local values associated with the feature. Therefore it is not possible to simply place different types of landscape feature into sensitivity bands. Where individual landscape features are affected, professional judgement is used as far as possible to give an objective evaluation of its sensitivity. Justification is given for this evaluation where necessary.
- A7.1.7 The nature or sensitivity of individual landscape features has been described as **very high, high, medium, low or very low**.

NATURE (SENSITIVITY) OF LANDSCAPE CHARACTER

- A7.1.8 The nature or sensitivity of landscape character reflects its susceptibility to change and any values associated with it. It is essentially an expression of a landscape's ability to accommodate a particular type of change, in this case the development of a wind farm. It varies depending on the physical and perceptual attributes of the landscape including but not necessarily limited to: scale; degree of openness; landform; existing land cover; landscape pattern and complexity; the extent of human influence in the landscape; the degree of remoteness/wildness; perception of change in the landscape; the importance of landmarks or skylines in the landscape; intervisibility with and influence on surrounding areas; condition; rarity and scenic quality of the landscape, and any values placed on the landscape including any designations that may apply.
- A7.1.9 In this appraisal, the nature or sensitivity of landscape character is considered with reference to published landscape character areas/types. Information regarding the key characteristics of these character areas/types has been extrapolated from relevant published studies. Together with on site appraisal an assessment of landscape sensitivity to wind energy development has been undertaken employing professional judgement for relevant character areas/types.
- A7.1.10 The nature or sensitivity of landscape character has been described as **very high, high, medium, low or very low**.

NATURE (SENSITIVITY) OF VISUAL RECEPTORS

- A7.1.11 The nature or sensitivity of a visual receptor group reflects their susceptibility to change and any values associated with the specific view in question. It varies depending on a number of factors such as the occupation of the viewer, their viewing expectations, duration of view and the angle or direction in which they would see the site. Whilst most views are valued by someone, certain viewpoints are particularly highly valued for either their cultural or historical associations and this can increase the sensitivity of the view. The following criteria are provided for guidance only and are not exclusive:
- **Very Low Sensitivity** – People engaged in industrial and commercial activities or military activities.
 - **Low Sensitivity** - People at their place of work (e.g. offices); shoppers; users of trunk/major roads and passengers on commercial railway lines (except where these form part of a recognised and promoted scenic route).
 - **Medium Sensitivity** - Users of public rights of way and minor roads which do not appear to be used primarily for recreational activities or the specific enjoyment of the landscape; recreational activities not specifically focused on the landscape (e.g. football); motel users.
 - **High Sensitivity** – Residents at home; users of long distance or recreational trails and other sign posted walks; users of public rights of way and minor roads which appear to be used for recreational activities or the specific enjoyment of the landscape; users of caravan parks, campsites and 'destination' hotels; tourist attractions with opportunities for views of the landscape (but not specifically focused on a particular vista); slow paced recreational activities which derive part of their pleasure from an appreciation of setting (e.g. bowling, golf); allotments.

- **Very High Sensitivity** - People at recognised vantage points (often with interpretation boards), people at tourist attractions with a focus on a specific view, visitors to historic features/estates where the setting is important to an appreciation and understanding of cultural value.

A7.1.12 It is important to appreciate that it is the visual receptor (i.e. the person) that has a sensitivity and not a property, public right of way or road. Therefore, a large number of people may use a motorway for example but this does not increase the sensitivity of the receptors using it. Conversely, a residential property may only have one person living in it but this does not reduce the sensitivity of that one receptor. The number of receptors affected at any given location may be a planning consideration, but it does not alter the sensitivity of the receptor group.

A7.1.13 Where judgements are made about the sensitivity of assessment viewpoints, the sensitivity rating provided is an evaluation of the sensitivity of the receptor group represented by the viewpoint and not a reflection of the number of people who may experience the view.

A7.1.14 It is important not to confuse the concept of visual sensitivity with the perception of wind turbines. It is acknowledged that some people consider wind turbines to be unattractive, but many people also enjoy the sight of them.

NATURE (MAGNITUDE) OF EFFECTS – GENERAL NOTE

A7.1.15 The following discussion sets out the approach adopted in this LVIA in relation to a specific issue arising in GLVIA3 which requires a brief explanation.

A7.1.16 Prior to the publication of GLVIA3, LVIA practice had evolved over time in tandem with most other environmental disciplines to consider significance principally as a function of two factors, namely: sensitivity of the receptor and magnitude of the effect (the term 'magnitude' being a word most commonly used in LVIA and most other environmental disciplines to describe the size or scale of an effect).

A7.1.17 Box 3.1 on page 37 of GLVIA3 references a 2011 publication by IEMA entitled 'The State of EIA Practice in the UK' which reiterates the importance of considering not just the scale or size of effect but other factors which combine to define the 'nature of the effect' including factors such as the probability of an effect occurring and the duration, reversibility and spatial extent of the effect.

A7.1.18 The flow diagram on page 39 of GLVIA3 now suggests that the magnitude of effect is a function of three factors (the size/scale of the effect, the duration of the effect and the reversibility of the effect). This is somewhat problematic in the context of assessing wind energy development.

A7.1.19 The proposed development is for a time limited period and would be largely reversible at the end of the scheme's operational period. This is a material consideration in the planning balance but does not reduce the scale of the effect during the period in which the scheme is operational (i.e. the 'magnitude' of the effect in the traditional and commonly understood sense of the word). In this regard, it would be incorrect to report a lesser magnitude of change to the landscape or view as a result of the time limited period of the effect or the relative reversibility of the effect.

A7.1.20 The approach taken in this LVIA is therefore to consider magnitude of effect solely as the scale or size of the effect in the traditional sense of the term 'magnitude'. Having identified the magnitude of effect as

defined above the LVIA also describes the duration and reversibility of the identified effect before drawing a conclusion on significance.

A7.1.21 In the context of the above discussion the following criteria have been adopted to describe the magnitude of effects.

NATURE (MAGNITUDE) OF EFFECTS ON LANDSCAPE FEATURES

A7.1.22 Professional judgement has been used as appropriate to determine the magnitude of direct physical effects on individual existing landscape features using the following criteria as guidance only:

- **Very Low Magnitude of Change** - No loss or alteration to existing landscape features;
- **Low Magnitude of Change** - Minor loss or alteration to part of an existing landscape feature;
- **Medium Magnitude of Change** - Some loss or alteration to part of an existing landscape feature; and
- **High Magnitude of Change** - Major loss or major alteration to an existing landscape feature.
- **Very High Magnitude of Change** - Total loss or alteration to an existing landscape feature.

NATURE (MAGNITUDE) OF EFFECTS ON LANDSCAPE CHARACTER

A7.1.23 The magnitude of effect on landscape character is influenced by a number of factors including: the extent to which existing landscape features are lost or altered, the introduction of new features and the resulting alteration to the physical and perceptual characteristics of the landscape. Professional judgement has been used as appropriate to determine the magnitude using the following criteria as guidance only. In doing so, it is recognised that usually the landscape components in the immediate surroundings have a stronger influence on the sense of landscape character than distant features whilst acknowledging the fact that more distant features can have an influence on landscape character as well.

- **Very Low Magnitude of Change** - No notable loss or alteration to existing landscape features; no notable introduction of new features into the landscape; and negligible change to the key physical and/or perceptual attributes of the landscape.
- **Low Magnitude of Change** - Minor loss or alteration to existing landscape features; introduction of minor new features into the landscape; or minor alteration to the key physical and/or perceptual attributes of the landscape.
- **Medium Magnitude of Change** - Some notable loss or alteration to existing landscape features; introduction of some notable new features into the landscape; or some notable change to the key physical and/or perceptual attributes of the landscape.

- **High Magnitude of Change** - A major loss or alteration to existing landscape features; introduction of major new features into the landscape; or a major change to the key physical and/or perceptual attributes of the landscape.
- **Very High Magnitude of Change** - Total loss or alteration to existing landscape features; introduction of dominant new features into the landscape; a very major change to the key physical and/or perceptual attributes of the landscape.

NATURE (MAGNITUDE) OF EFFECTS ON VIEWS AND VISUAL AMENITY

A7.1.24 Visual effects are caused by the introduction of new elements into the views of a landscape or the removal of elements from the existing view.

A7.1.25 Professional judgement, has been used to determine the magnitude of impacts using the following criteria as guidance only:

- **Very Low Magnitude of Change** - No change or negligible change in views;
- **Low Magnitude of Change** - Some change in the view that is not prominent but visible to some visual receptors;
- **Medium Magnitude of Change** - Some change in the view that is clearly notable in the view and forms an easily identifiable component in the view;
- **High Magnitude of Change** - A major change in the view that is highly prominent and has a strong influence on the overall view.
- **Very High Magnitude of Change** – A change in the view that has a dominating or overbearing influence on the overall view.

A7.1.26 Using this set of criteria, determining levels of magnitude is primarily dependant on how prominent the development would be in the landscape, and what may be judged to flow from that prominence or otherwise.

A7.1.27 For clarification, the use of the term 'prominent' relates to how noticeable the features of the development would be. This is affected by how close the viewpoint is to the development but not entirely dependent on this factor. Other modifying factors include: the focus of the view, visual screening and the nature and scale of other landscape features within the view. Rather than specifying crude bands of distance at which the turbines will be dominant, prominent or incidental to the view etc, the prominence of the turbines in each view is described in detail for each viewpoint taking all the relevant variables into consideration.

DURATION OF EFFECT

A7.1.28 For the purposes of this appraisal, the temporal nature of each effect with is described as follows:

- **Long Term** – over 5 years
- **Medium Term** – between 1 and 5 years
- **Short Term** – under 1 year

REVERSIBILITY OF EFFECT

A7.1.29 The LVIA also describes the reversibility of each identified effect using the following terms:

- **Permanent** – effect is non reversible
- **Non permanent** – effect is reversible

LEVEL OF EFFECT

A7.1.30 The purpose of an LVIA when produced in the context of an EIA is to identify any significant effects on landscape and visual amenity arising from the proposed development.

A7.1.31 Neither EC Directive 2011/12/EU nor the Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2011 define a threshold at which an effect may be determined to be significant. In certain other environmental disciplines there are regulatory thresholds or quantitative standards which help to determine the threshold of what constitutes a significant effect. However in LVIA, any judgement about what constitutes a significant effect is ostensibly a subjective opinion expressed as in this case by a competent and appropriately qualified professional assessor.

A7.1.32 The level (relative significance) of the landscape and visual effects is determined by combining judgements regarding sensitivity of the landscape or view, magnitude of change, duration of effect and the reversibility of the effect. In determining the level of residual effects, all mitigation measures are taken into account.

A7.1.33 The level (relative significance) of effect is described as **Substantial**, **Substantial/Moderate**, **Moderate**, **Moderate/Slight** or **Slight**. **No Effect/Negligible** may also be recorded as appropriate where the effect is so negligible it is not even noteworthy.

A7.1.34 In my appraisal, those effects described as **Substantial**, **Substantial/Moderate** and in some cases **Moderate** may be regarded as significant effects as required by the Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2011. These are the effects which the authors of the LVIA consider to be material in the decision making process.