

# **ES Technical Appendices**

Chapter 2: Landscape and Visual Impact Assessment

Stokes Lane Solar Farm

Stokes Lane Solar Farm Limited

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## Technical Appendix 2-1: LVIA Assessment Criteria

## A.1. Impact Assessment Criteria

The assessment criteria tables below provide a framework to help ensure consistency and transparency in the decision-making process. They are not intended to be prescriptive tools but allow for the exercise of professional judgement in determining sensitivity, magnitude and the consequent significance of an effect. This is noted in GLVIA3 best practice which stresses that there should be "...more emphasis on narrative text describing the landscape and visual effects and the judgements made about their significance".

GLVIA3 indicates that the significance of effect on landscape and visual receptors is determined from a combined evaluation of the sensitivity of the receptor and the magnitude of the effect (Figure 3.5 of GLVIA3). The key terms used within this assessment are therefore:

- Susceptibility and Value which contribute to sensitivity of the receptor;
- Scale, Duration and Extent which contribute to the magnitude of effect; and
- Significance.

## A.2. Sensitivity of Landscape Receptors

Landscape sensitivity is noted in Natural England's best practice guidance report (2019) "An Approach to Landscape Sensitivity Assessment" which states that:

"Landscape sensitivity may be regarded as a measure of the resilience, or robustness, of a landscape to withstand specified change arising from development types or land management practices, without undue negative effects on the landscape and visual baseline and their value".

GLVIA3 also notes that Landscape Receptors are "defined aspects of the landscape resource that have the potential to be affected by a proposal." (page 157). This can mean the landscape as whole, or to individual elements, features and aesthetic or perceptual dimensions which contribute to the character of the landscape.

GLVIA3 goes on to note that "landscape receptors need to be assessed firstly in terms of their sensitivity, combining judgements of their susceptibility to the type of proposal and the value attached to the landscape" (para 5.39). Typical attributes or indicators are noted below.

#### Susceptibility to Change

Susceptibility is defined in the Oxford English Dictionary as 'the quality or condition of being susceptible; capability of receiving, being affected by, or undergoing something'. For the purposes of this assessment, this essentially defines how easily affected or vulnerable a receptor is. It is therefore directed by current baseline conditions and the presence or absence of other competing or detracting elements in the landscape or view.

Landscape Susceptibility indicates the ability of a landscape receptor to accommodate the Proposed Development "without undue consequences for the maintenance of the baseline situation and/or the achievement of landscape planning policies and strategies." (GLVIA3, para. 5.40).

The Landscape Institute's (LI) TGN-2024-01 notes that criteria can be used to judge susceptibility e.g. landform, landcover, landscape pattern and scale, enclosure, tranquillity/ man-made influence, time depth etc. Relevant criteria will be dependent upon the development type being considered and should be tailored to the project.



Table 2-1-1: Typical Indicators of Landscape Susceptibility

Susceptibility	Lower	Higher		
Scale	<b>e</b> Large or vast scale. Intimate or small scale.			
Enclosure	Open or exposed, windswept.	Enclosed or confined, sheltered.		
		Dramatic, steep, rugged, or complex landform with prominent peaks or ridges.		
Diversity	Simple or uniform, e.g. moorland.	Complex or diverse, with a variety of land cover.		
Land Cover Pattern and Line	Ver         Pattern         Indistinct or irregular pattern.         Strong and regular linear features, geometric or rectilinear patterns.			
Settlement and Infrastructure Frequent masts, pylons, industrial elements, modern building infrastructure, settlements or modes.		infrastructure or main roads.		
Perception of Landscape Change	Modern or clearly dynamic showing obvious land use changes.	nowing Little or no land use changes, or with obvious historical continuity.		
Tranquillity  Busy, with evidence of human activity, noise or regular movement.		Remote or tranquil with strong sense of stillness or solitude.		
Settings and Skylines  Low-lying areas that do not tend to feature in views from populated areas or main roads.				

## **Landscape Value**

The LVIA takes as its starting point the recognised value of the landscape, as identified by landscape designations at national, local and district levels. It also considers the following factors in Table B2 below, which are adapted from paragraphs 5.26-5.31 of GLVIA3 and LI Technical Guidance Note 'TGN 02-21 Assessing Landscape Value Outside National Designations' (2021).

Table 2-1-2: Factors Helping to Identify Landscape Value

Factors Affecting Landscape Value	Considerations		
Designations	Landscape and landscape-related and other recognised landscape values such as Wild Land, Dark Skies.		
Condition/Intactness	The degree to which the landscape is unified or intact.		
Scenic Quality	The extent to which the landscape appeals, primarily to the visual senses.		
Perceptual Aspects	The degree to which the landscape is recognised for perceptual qualities, such as its sense of remoteness, solitude.		
Rarity	The presence of unusual elements or features in the landscape or the presence of an unusual LCT.		
Representativeness	The degree to which the landscape contains important examples of elements or features or is of a particular character that is considered important.		
Conservation Interests	Cultural or natural heritage interests that add to the value of the landscape and/or are of value in themselves.		
Recreational Value	Evidence of recreational activity where experience of the landscape is important, such as recognised scenic routes.		
Associations	Recognised cultural or historical associations that contribute to perceptions of the natural beauty of the landscape.		

#### The TGN 02-21 also notes:

"GLVIA3 recognises that landscape value is not always signified by designation: 'the fact that an area of landscape is not designated either nationally or locally does not mean that it does not have any value' (para 5.26). GLVIA3 recommends that when undertaking a LVIA/LVA in an undesignated



area, landscape value should be determined through a review of existing assessments, policies, strategies and guidelines and, where appropriate, by new survey and analysis (para 5.27 and 5.28)."

### **Landscape Sensitivity**

Landscape Sensitivity is assessed by combining the considerations of susceptibility and value described above. These will be determined using a combination of typical indicators as noted in the following Table 9.4.3 using a four- point scale of: very low, low, medium, and high. This draws on guidance noted in GLVIA3 (para 3.27). These will be appraised using professional judgement.

Table 2-1-3: Landscape Sensitivity

Sensitivity	Typical criteria
High	Landscape of national or regional value with distinctive elements and characteristics, highly susceptible to small changes of the type of development proposed without undue consequences for the maintenance of the baseline situation. Typically, these include high quality with distinctive elements Likely to be designated, but the aspects which underpin such value may also be present outside designated areas; Areas of special recognised value through use, perception or historic and cultural associations. Likely to contain features and elements that are rare and could not be replaced.
Medium	Landscape of local or community value or importance able to accommodate some change of the type proposed without undue consequences for the maintenance of the baseline situation. (i.e. features worthy of conservation, some sense of place or value through use/perception but some commonplace elements). Locally designated, or value may be expressed through non-statutory local publications. Likely to contain some features and elements that could not be replaced
Low	Local landscape areas or receptors of low to medium importance with mostly common elements and characteristics and an ability to accommodate changes (i.e. non-designated or designated areas of local recognition or areas of little sense of place).
Very Low	Landscape of very low or limited value, which is damaged, degraded or a substantially modified landscape pattern with few or no natural or original features remaining, such that it is tolerant of change

## A.3. Sensitivity of Visual Receptors

GLVIA3 notes that Visual Receptors are; "individuals and/or defined groups of people who have the potential to be affected by a proposal." (page 158)

For visual receptors, susceptibility and value are closely linked - the most valued views are also likely to be those where viewer's expectations will be highest.

#### Susceptibility to Change

People generally have different responses to views and visual amenity depending on the context (e.g. location, time of day, degree of exposure), and their purpose for being in a particular place (e.g. whether for recreation, travelling through the area, residence or employment). As noted in GLVIA3, para 6.32, Susceptibility to change is therefore a function of:

- The occupation or activity of people experiencing the view or visual amenity; and
- The expectation or extent to which their attention or interest may be focused on the landscape around them.

GLVIA3 also notes that "...the division is not black and white and in reality there will be a gradation in susceptibility to change. Each project needs to consider the nature of the groups of people who will be affected and the extent to which their attention is likely to be focused on views and visual amenity".



#### **Value Attached to Particular Views**

Judgments are also made about the value attached to views, based on the following considerations:

- Recognised value such as views from heritage assets or designated landscapes;
- Indicators of value such as references, inclusion in guidebooks or on tourist maps, facilities
  provided for visitors or references to the view in literature or art; and
- The relative number of people who are likely to experience the view.

People that are more susceptible to change and at viewpoints of recognised value are more likely to be substantially affected by a given change.

## **Visual Sensitivity**

Visual Sensitivity is assessed by combining the considerations of susceptibility and value described above. These will be appraised using professional judgement. These will be determined using a combination of typical indicators as noted in Table B-4 using a sliding four-point scale of: very low, low, medium, and high.

This will also include combinations of categories e.g. for residents within the wider settlement beyond properties (High – Medium) and for road users on roads which are not defined or locally promoted scenic routes, trunk roads (Medium-Low).

These typical examples may be varied based on specific factors relevant to the type of development proposed or the particular Site and its context.

**Table 2-1-4: Visual Sensitivity** 

Sensitivity	Typical criteria
High	Activity resulting in a particular interest or appreciation of the view (e.g. residents at home with principal private views and/or high value views (but see table 9-5/ GLVIA Para. 6.36) or visitors to valued viewpoints or routes which people might visit purely to experience the view, e.g. promoted or well-known viewpoints, routes from which views that form part of the special qualities of a designated landscape can be well appreciated; key designated views; panoramic viewpoints marked on maps.
Medium	Activity resulting in a general interest or appreciation of the view (e.g. residents within settlement areas beyond property curtilage and / or people engaged in outdoor recreation that does not focus on an appreciation of the landscape; Users of cycle routes, local roads, railways, users of A-roads which are nationally or locally promoted scenic routes) and/or a view of local or community value; People at their place of work, where views are an important part of the setting, such as a countryside ranger
Low	Activity where interest or appreciation of the view is secondary to the activity or the period of exposure to the view is limited (e.g. people at work, motorists travelling through the area or people engaged in outdoor recreation that does not focus on an appreciation of the landscape) and/or a view of limited value (e.g. featureless agricultural landscape, poor quality urban fringe)
Very Low	Activity where interest or appreciation is inconsequential or the period of exposure to the view is very limited (e.g. people at work or motorists travelling through the area) and/ or a view of limited value (e.g. industrial areas or derelict land).



## A.4. Magnitude of Landscape Effects

The magnitude of effect (the change brought about by the development proposal), is defined within GLVIA as "a combination of the scale, extent and duration of an effect" and can be categorised using typical indicators as noted in the table below or by a combination of these categories.

Effects can be direct, where they involve a physical change to a defined element or characteristic of the landscape, or indirect, where effects are secondary and perceived on the wider pattern of elements or on visual amenity, away from the proposed site.

**Table 2-1-5: Magnitude of Landscape Effect** 

Class	Criteria
High	Total loss or large-scale damage to key characteristics or distinctive features, and/or the addition of new uncharacteristic features or components affecting the majority of the key characteristics and defining the experience of the landscape which will substantially alter the character, scale or setting of the wider landscape.
Medium	Partial loss or noticeable damage to existing landscape character or distinctive features or elements; and/or addition of new, noticeable features or elements affecting some key characteristics, scale, setting and the experience of the wider landscape. Some elements of the Proposed Development fit the existing pattern and scale.
Low	Limited loss or damage to key characteristics or alteration of common features, and/or the addition of new features such that post development the change would be discernible, but the underlying pattern of characteristics would remain similar to the baseline condition which Fits intrinsic pattern and scale
Negligible	Barely noticeable loss, damage or alteration to key characteristics or features. The change would not influence the wider character and would be barely discernible or legible, approximating to a "no change" situation
None	No change to the character or setting of the area

## A.5. Magnitude of Visual Effects

The magnitude of the visual effect resulting from the Proposed Development is evaluated in terms of size or scale, geographical extent, duration and reversibility.

For this, the recent guidance provided in the LI's Technical Guidance Note, LITGN-2024-01 (Published August 2024) note that "For magnitude of effect, it is likely that the size/scale of effect will be the most important factor, with geographical extent and duration/ reversibility considered as 'modifiers'."

#### Size or Scale of Effect

This is based on the interpretation of a combination of a range of factors, including some criteria for built up areas. Some of these are largely quantifiable and include:

- Distance and direction of the viewpoint from the Proposed Development;
- Extent of the Proposed Development visible from the viewpoint;
- Scale of the change in the view, including the proportion of the field of view occupied by the Proposed Development;
- Degree of contrast with the baseline landscape elements and characteristics in terms of background, form, pattern, scale, movement, colour, texture, mass, line or height;
- The relative amount of time during which the effect will be experienced and whether views will be full, partial or glimpses; and
- Orientation of receptors in relation to the Proposed Development, e.g. whether views are oblique or direct.



**Table 2-1-6: Magnitude of Visual Effects** 

Class	Criteria
High	Large / extensive change to the composition of the existing view (e.g. widespread loss of features or the widespread addition of new features within the view) and/or high degree of exposure to view (e.g. close, direct or open views) where the development, or a part of it, would become the dominant feature or focal point of the view. Large proportion of the view affected. New elements or pattern introduced or very different scale
Medium	Partial change to the composition of the existing view (e.g. loss of some features or the addition of new features within the view) and/or medium degree of exposure to view (e.g. middle-distance or partially screened views) Some elements of the Proposed Development fit the existing pattern and scale. Some of the view affected where the development or a part of it, would form a noticeable feature or element of the view which is readily apparent to the receptor.
Low	Slight or Subtle change to existing view (e.g. limited loss of features or the addition of new features within the view) and/or low degree of exposure to view (e.g. long-distance, substantially screened or glimpsed views). Fits intrinsic visual composition and scale, where the development or a part of it, would be perceptible but not alter the overall balance of features and elements that comprise the existing view. Little of the view affected.
Negligible	Barely perceptible change to the existing view and/or very brief exposure to view. where only a very small part of the Scheme would be discernible, or it is at such a distance that it would form a barely noticeable feature or element of the view. Weak, not legible, hardly discernible
None	No change to the view

#### **Geographical Extent of Effect**

The geographical area over which the landscape and visual effect will be experienced is taken into account. This is distinct from the scale of the change. For example, a small change to the landscape over a large geographical area could be comparable to a very large change affecting a much more localised area.

The LI's Technical Guidance Note, LITGN-2024-01 provides notes and clarifications on GLVIA3. It suggests that "geographical extent should reflect the relevance of the location (for example it may more strongly or weakly manifest one of the key characteristics than other areas, or it may have a geographic role in connecting parts of the receptor) and the spread of effects, as a 'modifier' to the scale of effect so that it does not understate the magnitude of effects for extensive receptors such as large character areas or designations". It also notes cases where there is a modified baseline where extent of effects "should be based on the most likely future scenarios".

### **Duration of Effect**

The duration and frequency of effect is also considered. Effects of longer duration and/or greater frequency are more likely to be substantial. Construction effects and changes that are in place for 0-5 years are usually considered as short-term, with medium-term 5-10 years, long-term 10-25 years. Effects can also be temporary and reversible or permanent.



## A.6. Significance of Effects

Significance indicates the importance or gravity of the effect. The process of forming a judgement on the degree of significance is based upon the assessments of magnitude of effects and sensitivity of the receptor to come to a professional judgement of how important this effect is.

For landscapes, major loss of landscape features or characteristics across an extensive area that are important to the integrity of a nationally valued landscape are likely to be most substantial. Short-term effects on landscape features or characteristics over a restricted part of a landscape of lower value are likely to be least so.

Visual effects are more likely to be substantial/significant on people who are particularly sensitive to changes in views and visual amenity, when experienced at recognised and important viewpoints, or from recognised scenic routes. Large scale changes which introduce new, discordant or intrusive elements into the view are also more likely to be substantial than small changes or changes involving features already present within the view.

GLVIA3 notes that "when drawing a distinction between levels of significance is required (beyond significant/not significant) a word scale for degrees of significance can be used". (para3.34). This is defined below.

## **Degrees of Landscape and Visual Effects**

The asserted 'degrees of effect' grades used within this LVIA are classified by considering the relationship between the sensitivity of the receptor and the magnitude of change. It uses a matrix as provided in Table 9.4.8, which is used to achieve consistency when judging ratings. However, this is only a guide and final classifications will be based on professional judgement

These degrees indicate a gradation between categories and a 'sliding scale' of the relative importance of the effect, with Major being the most important and Negligible being the least. Effects that are towards the higher level of the scale (Major) are those judged to be most important, whilst those towards the bottom of the scale are "of lesser concern" (GLVIA, 3<sup>rd</sup> edition, para 3.35). Intermediate or transitional categories are sometimes used within the sliding scale where effects fall between categories in the matrix.

Table 2-1-7: Degrees of Landscape and Visual Effect

Sensitivity (Susceptibility &	Magnitude of Change				
Value)	High	Medium	Low	Negligible	None
High	Major	Major to Moderate	Moderate	Moderate to Minor	No Change
Medium	Major to Moderate	Moderate	Moderate to Minor	Minor	No Change
Low	Moderate	Moderate to Minor	Minor	Minor to Negligible	No Change
Very Low	Moderate to Minor	Minor	Minor to Negligible	Negligible	No Change



GLVIA3 notes that "It is not essential to establish a series of thresholds for different levels of significance of landscape and visual effects, provided that it is made clear whether or not they are considered significant.(...). These tend to vary from project to project but they should be appropriate to the nature, size and location of the proposed development".

It is generally considered that effects of Major and Major-Moderate (or Moderate – Major) are deemed to be **Significant**, as highlighted bold in the Matrix.

The Li's TGN LITGN-2024-01 also notes that "...moderate effects may or may not be significant and justification would be needed in the methodology or receptor assessment as to whether a moderate effect is significant or not."

GLVIA notes that for both landscape and visual receptors; 'there cannot be a standard approach since circumstances vary with the local and landscape context and with the type of proposal'.

As such, this matrix approach, while helpful, is not a prescriptive tool, as at times the table may not provide a clear correlated value, which is where professional judgment plays an important role in determining the gradation in the overall degree of effect and the subtle variations between these categories. Where intermediate ratings are noted, e.g. "Moderate-Minor", this indicates an effect that is both less than Moderate and more than Minor, rather than one which varies across the range.

## A.7. Direct and Indirect Effects

The landscape and visual resource of an area can be affected both directly and indirectly. Visual impacts are always direct because an object needs to be seen for a visual impact to arise. Landscape impacts on the other hand can be either direct or indirect. Change which affects on-site physical features (i.e. vegetation, buildings and landform), or the character area in which the Site is located, is direct, whereas an impact on the character of surrounding landscape character areas is indirect. Indirect impacts tend to be less substantial than direct ones.

## A.8. Valency of Effects and Objective Assessment

#### Beneficial / Adverse and Neutral Effects

Landscape and Visual effects can be assessed objectively and quantitatively as either adverse, i.e. loss of valuable elements, degradation of landscape character or loss of integrity in terms of designated landscapes); beneficial, i.e. removal of inappropriate or damaging elements, enhancement of key landscape elements and landscape character, introduction of positive landscape elements.

Neutral effects would occur where there is a balance of beneficial and adverse impacts.

Whether the landscape and visual effects are adverse, beneficial, or neutral, is influenced by a variety of issues including personal preference, interests, and exposure to similar developments. As such judgements on the valency of effects are made separately from the main assessment in this LVIA, to retain objectivity in the assessment.

The importance of perceptions of landscape is emphasised by the European Landscape Convention, and others may of course hold different opinions on whether the effects are positive or negative, but this is not a reason to avoid making this judgement, which will ultimately be weighed against the opinions of others in the decision-making process.



### **Acceptability of Effects**

Commercial scaled solar farms of various scales may be considered by some to be unacceptable intrusions in the landscape but can equally be seen as essential contributors to tackling climate change.

The acceptability of solar farms or otherwise is therefore based on a range of public perceptions and there is a balancing act between their potential benefits (renewable energy, reduced emissions, climate change, energy independence and economic development) and potential impacts or harms (visual impact, impact on agricultural land, habitat loss). Government guidance and planning policies generally prioritize avoiding development on the best agricultural land and in green belt areas, while also weighing the benefits of renewable energy against the potential harm. Local authorities also play a role in assessing the impact of solar farms on their specific communities and landscapes.

It is not the effects on the landscape that change but the judgements about the acceptability of those effects. Acceptability is therefore a matter for the decision maker to determine, taking into account the overall balance of environmental benefits and effects of the Proposed Development, on the basis of all of the available evidence. GLVIA3 notes in paragraph 2.17 that "...it is for the competent authority to judge the balance of weight between policy considerations and the effects that such proposals may have."

There are no specific accepted, legal requirements or published criteria to use as a basis on which to judge whether a change in the landscape, or in a view, is acceptable. Nor is there any published guidance on establishing a threshold, beyond which further changes should be prevented.

This LVIA sets out, in an impartial way, the nature and extent of landscape and visual effects that are likely to result from the Proposed Development and does not draw conclusions as to acceptability

## A.9. Mitigation of Landscape and Visual Effects

The identification of potential landscape and visual effects is an important part of the iterative design process because it can help designers avoid or minimise potential adverse effects of a development and, where appropriate, can help to identify opportunities for mitigation measures. Mitigation measures can be:

- Primary measures developed through the iterative design process and 'embedded' into the project design;
- Standard construction and operational management practices for avoiding or reducing environmental effects; or
- Secondary measures to address any residual effects remaining after the primary measures and standard construction/operational practices have been incorporated into the scheme.

## A.10. Residual Effects

Residual effects are changes to landscape or visual amenity caused by the Proposed Development after all mitigation has been considered.



## Technical Appendix 2-2: Illustrative Viewpoint Photos

Viewpoint A - Weybrook Park Golf Club, looking west



Viewpoint B - Adjacent to PRoW at Weybrook Golf Club - scoping view 2a, looking west



Viewpoint C - PRoW Stokes Lane - scoping view 3a looking south





Viewpoint D - Western boundary, to the east side of a PRoW (which lies to the west of a wooded boundary), looking east



Viewpoint E - Monk Sherborne Road, east of Memorial, Salters Heath Road, Monk Sherborne -scoping view B, looking south from field access





Viewpoint F - Basingstoke road south of Field Barn Farm - scoping view C looking north



Viewpoint G - Rookery Farm Lane looking east

