
EAST YORKSHIRE SOLAR FARM

**East Yorkshire Solar Farm
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Executive Summary

- ES1 This appendix sets out the methodology for the Landscape and Visual Impact Assessment (LVIA), including the Zone of Theoretical Visibility (ZTV) and the visualisations of the Scheme.
- ES2 The LVIA has been undertaken in accordance with standard industry guidance. Professional judgement is used in combination with structured methods and criteria to evaluate landscape and visual value and susceptibility, the resulting sensitivity, magnitude, and significance of effect.
- ES3 Following assessment of the baseline context of the development and identification of landscape and visual receptors, the LVIA assesses the sensitivity of receptors, by combining value and susceptibility, magnitude of effects and significance of effects. Geographical extent, duration, reversibility and if the effect is adverse or beneficial is stated for each assessed effect.
- ES4 The objective of the assessment process is to identify and evaluate potential notable effects arising from the Scheme. The assessment identifies the residual effects likely to arise from the design taking into account mitigation measures and change over time.
- ES5 In order to provide a level of consistency and transparency to the assessment and allow comparisons to be made between the various landscape and visual receptors subject to assessment, the assessment of beneficial and adverse effects is based on pre-defined criteria. When assessing the degree of individual effects, these may fall across several different categories and professional judgement is therefore used to determine which level best fits the overall effect on a landscape or visual receptor.

1. Introduction

- 1.1.1 This appendix sets out the methodology for the Landscape and Visual Impact Assessment (LVIA), including the Zone of Theoretical Visibility (ZTV) and the visualisations of the Scheme.

2. Assessment Methodology

2.1 Overview

- 2.1.1 The LVIA has been undertaken in accordance with:
- a. Guidelines for Landscape and Visual Impact Assessment, 3rd Edition (GLVIA3), (Ref. 1);
 - b. Landscape Institute Technical Guidance Note 06/19: Visual Representation of Development Proposals, (Ref. 2);
 - c. Landscape Institute Technical Guidance Note 04/20: Infrastructure, (Ref. 3);
 - d. Landscape Institute Technical Information Note 01/17: Tranquillity, (Ref. 4); and
 - e. Landscape Institute Technical Guidance Note 02/21: Assessing landscape value outside national designations, (Ref. 5).
- 2.1.2 GLVIA3 places a strong emphasis on the importance of professional judgement in identifying and defining the significance of landscape and visual effects. The LVIA is undertaken by Chartered Landscape Architects with experience in the assessment of similar types of projects. Professional judgement is used in combination with structured methods and criteria to evaluate landscape and visual value and susceptibility, the resulting sensitivity, magnitude, and significance of effect.
- 2.1.3 The LVIA recognises that different stages of the Scheme may result in different levels of landscape and visual effects. In addition, it recognises the potential for landscape and visual effects to change over time, particularly where the Scheme incorporates mitigation planting. The LVIA therefore includes consideration of effects at the following stages:
- a. Construction (anticipated start 2025, for a 24-month duration);
 - b. Opening (winter year 1 of operation, anticipated 2027);
 - c. Operation (summer 15 years post opening, anticipated 2042); and
 - d. Decommissioning (summer, anticipated 2067).
- 2.1.4 The following section provides details of the methodology for the LVIA which builds on the general assessment methodology presented in **Chapter 5: Environmental Impact Assessment Methodology, ES Volume 1 [EN010106/APP/6.1]**. For clarity and in accordance with good practice, the assessment of potential effects on landscape character and visual amenity, although closely related, are undertaken separately.

2.2 Study Area

- 2.2.1 The initial 'Area of Search' extended 10 km from the Order limits. This was informed by consideration of the location and scale of the Scheme and desk-based analysis of mapping and aerial photography. A Zone of Theoretical Visibility (ZTV) was used to determine the potential visibility of the Scheme. Refer to **Figure 10-4: ZTV Bare Earth**, **Figure 10-5: Zone of Theoretical Visibility (With Surface Features) – Solar Panels** and **Figure 10-6: Zone of Theoretical Visibility (With Surface Features) – Substations, ES Volume 3 [EN010143/APP/6.3]**. Fieldwork was subsequently undertaken to verify the findings of the desk study. This analysis determined the Study Area, defined as the extent in which the Scheme may result in significant landscape or visual effects.
- 2.2.2 With reference to **Figure 10-1: Study Area, ES Volume 3 [EN010143/APP/6.3]** the Study Area is described below:
- To the north approximately 1 km from the Solar PV Areas;
 - To the west approximately 2 km from the Solar PV Areas;
 - To the south-west the Study Area follows the extent of the Solar PV Areas;
 - To south-east approximately 2 km from the Solar PV Areas; and
 - To the east approximately 2 to 2.6 km, as well as one isolated area of elevated ground at approximately 5.3 km further east.
- 2.2.3 The varying radii respond to the topographical setting of the Scheme. However, elevated ground further to the east within approximately 10 km of the Scheme has been excluded as it was assessed that there was no visibility of the Scheme from this location.
- 2.2.4 Extensive review within the Study Area was undertaken in order to identify landscape and visual receptors that have potential to be affected by the Scheme.

2.3 Assessment Process

- 2.3.1 Following assessment of the baseline landscape and visual context of the development the LVIA assesses the:
- Sensitivity of receptors, whether the landscape or viewers;
 - Magnitude of effect, whether adverse or beneficial; and
 - Significance of the effects based on a comparison of sensitivity of receptor to magnitude of effect.
- 2.3.2 Effects may be temporary, permanent, short-term or long-term. Landscape and visual effects may be further categorised as being either direct, i.e. originating from the site, or indirect, e.g. off-site visual effect of construction traffic.

2.4 Landscape Assessment Methodology

2.4.1 In predicting the effects of the Scheme on the landscape within the Study Area, GLVIA3 states the following steps should be undertaken in order to identify and describe the landscape effects:

- a. Identify the components of the landscape that are likely to be affected by the Scheme (landscape receptors); and
- b. Identify the interactions between the landscape receptors and different components of the Scheme at its different stages.

Sensitivity of Landscape Receptors

2.4.2 Landscape receptors are described within GLVIA3 (para 5.34) as *“components of the landscape that are likely to be affected by the scheme”*. These can include overall character and key characteristics, individual elements or features and specific aesthetic or perceptual aspects (such as wildness or tranquillity).

2.4.3 It is the interaction between the different components of the Scheme and these landscape receptors which has potential to result in landscape effects (both adverse and beneficial).

2.4.4 The sensitivity of the landscape receptor is a combination of their susceptibility to change of the specific type of development being assessed combined with the value of the landscape.

Susceptibility to Change

2.4.5 The susceptibility to change is a measure of the ability of a landscape 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”* (para 5.40, GLVIA3). The assessment of susceptibility must be tailored to the Scheme and considered as part of the assessment of the effects.

2.4.6 **Table 1** provides criteria level in relation to susceptibility.

Table 1. Susceptibility to change

Criteria level	Susceptibility to change
High	The receptor has a low capacity to accommodate the Scheme without effects upon its overall integrity. The landscape is likely to have a strong pattern/ texture or is a simple but distinctive landscape and/or with high value features and essentially intact.
Medium	The receptor has some capacity to accommodate the Scheme without effects upon its overall integrity. The pattern of the landscape is mostly intact and/or with a degree of complexity and with features mostly in reasonable condition.
Low	The receptor is robust; it can accommodate the Scheme without effects upon its overall integrity. The landscape is likely to be simple, monotonous and/or degraded with common/ indistinct features and minimal variation in landscape pattern.

Landscape Value

- 2.4.7 Establishing the landscape value of the identified receptors and Study Area is necessary to determine the landscape sensitivity at both a site and Study Area scale.
- 2.4.8 Landscape value is frequently addressed by reference to international, national, regional, and local designations, determined by statutory bodies and planning agencies. Absence of such a designation does not necessarily imply a lack of quality or value. Factors such as accessibility and local scarcity can render areas of nationally unremarkable quality, highly valuable as a local resource. The evaluation of landscape value is informed by the Landscape Institute TGN 02/21 (Ref. 5) and undertaken considering the following factors and classified as high, medium, or low with evidence provided as to the basis of the evaluation:
- a. Natural heritage – landscape with clear evidence of ecological, geological, geomorphological, or physiographic interest which contribute positively to the landscape;
 - b. Cultural heritage – landscape with clear evidence of archaeological, historical or cultural interest which contribute positively to the landscape;
 - c. Landscape quality/condition – the measure of the physical state of the landscape including the intactness of the landscape and the condition of individual elements;
 - d. Scenic quality – the level of visual and sensory appeal of the landscape;
 - e. Perceptual aspects – the extent that the landscape receptor is recognised for its perceptual qualities (e.g. scenic, wildness or tranquillity);
 - f. Functional – landscape which performs a clearly identifiable and valuable function, particularly in the healthy functioning of the landscape;
 - g. Rarity – the presence of unusual elements or features;
 - h. Representativeness/distinctiveness – the presence of particularly characteristic features;
 - i. Recreation – the extent that recreational activities contribute to the landscape receptor; and
 - j. Association – extent that cultural or historical associations contribute to the landscape receptor.
- 2.4.9 Judgements on landscape value for each receptor will be informed by the following criteria:
- a. High: nationally designated or iconic, unspoiled landscape with few, if any degrading elements;
 - b. Medium: regionally or locally designated landscape or an undesignated landscape with locally important features which may include some degrading elements; and

- c. Low: undesignated landscape with few, if any, distinct features or several degrading elements.

2.4.10 In combining susceptibility to change and value GLVIA3 indicates that combining susceptibility and value can be achieved in a number of ways and needs to include professional judgement. However, it is generally accepted that a combination of high susceptibility and high value is likely to result in the highest sensitivity, whereas a low susceptibility and low value is likely to result in the lowest level of sensitivity. A summary of the likely characteristics of the different levels of sensitivity is described below in **Table 2**. It should be noted that these are indicative and in practice there is not a clear distinction between criteria levels.

Table 2. Landscape & Landscape Elements Sensitivity Criteria

Criteria level	Characteristics
High	<p>Areas of landscape character that are highly valued for their scenic quality (including most statutorily designated landscapes); and/or elements/features that could be described as unique; or are nationally scarce; or mature vegetation with provenance such as ancient woodland or mature parkland trees.</p> <p>Mature landscape features which are characteristic of and contribute to a sense of place and illustrate time-depth in a landscape and if replaceable, could not be replaced other than in the long term.</p>
Medium	<p>Areas that have a positive landscape character but include some areas of alteration/degradation/or erosion of features; and/or perceptual/aesthetic aspects has some vulnerability to unsympathetic development; and/or features/elements that are locally commonplace; unusual locally but in moderate/poor condition; or mature vegetation that is in moderate/poor condition or readily replicated.</p>
Low	<p>Areas that are relatively bland or neutral in character with few/no notable features; and/or a landscape that includes areas of alteration/degradation or erosion of features; and/or landscape elements/features that are commonplace or make little contribution to local distinctiveness.</p>
Very Low	<p>Damaged or substantially modified landscapes with few characteristic features of value, capable of absorbing major change; and/or landscape elements/features that might be considered to detract from landscape character such as obtrusive man-made artefacts (e.g., power lines, large scale developments, etc.).</p>

Magnitude of Landscape Effects

- 2.4.11 The nature of the effect that is likely to occur, i.e. its magnitude, is determined by considering four separate factors, namely:
- a. Size/scale;
 - b. Geographical extent;

- c. Duration; and
- d. Reversibility.

2.4.12 Judgements regarding the size or scale of the changes to the landscape need to be made for each potential effect. GLVIA3 (para 5.59) specifies that these judgements should take into account the following:

- a. the extent of existing landscape elements that will be lost, the proportion of the total extent that this represents and the contribution of that element to the character of the landscape – in some cases this may be quantified;
- b. the degree to which aesthetic or perceptual aspects of the landscape are altered either by removal of existing components of the landscape or by addition of new ones; and
- c. whether the effect changes the key characteristics of the landscape, which are critical to its distinctive character.

2.4.13 The criteria should be presented in a verbal scale, which “*distinguishes the amount of change without being overly complex*” (GLVIA3 para 5.49).

2.4.14 The size and scale of an effect is determined by considering the amount of change experienced by a receptor, based on the indicative criteria set out in **Table 3** below.

Table 3. Landscape Size/Scale Criteria

Criteria level	Feature/ element	Aesthetic /perceptual aspect	Key characteristics/ overall character
Large	Total or substantial loss or large scale damage to landscape features resulting in the integrity of the landscape being compromised.	Change wholly or largely alters an aesthetic/ perceptual aspect, such that it becomes difficult/ impossible to appreciate, when considered against the baseline.	Loss of or changes to the critical key characteristics of the landscape, resulting in a change to the overall landscape character.
Medium	Partial loss or medium scale damage to landscape features resulting in a partial change to the element/feature which may in some cases diminish its overall integrity.	Change is such that the development has an influence upon an aesthetic/ perceptual aspect, but said aspect remains appreciable.	Partial loss or small changes to the key characteristics of the landscape but not resulting in an obvious change to the overall character of the area.

Criteria level	Feature/ element	Aesthetic /perceptual aspect	Key characteristics/ overall character
Small	Slight loss or small scale damage to landscape features with its integrity remaining unchanged.	Change has little tangible effect upon an aesthetic/ perceptual aspect.	Minor changes to key characteristics which result in no or little change to the overall landscape character.

Geographical Extent

2.4.15 The criteria for defining geographical extent of the landscape effects are shown in **Table 4**.

Table 4. Geographical Extent Criteria

Criteria level	Description
Large	The effects may influence several landscape types/character areas.
Medium	The effects may influence the landscape type/character area within which the development is located.
Small	The effects may influence the immediate setting of the site.
Negligible	The effects may influence the development site only.

Duration and Reversibility

2.4.16 The duration of an effect and its reversibility are linked but separate consideration of the criteria for defining these are as below in **Table 5** and **Table 6**. These duration criteria following the guidance as set out in GLVIA3 and as such differ from the criteria set out in **Chapter 5: EIA Methodology ES Volume 1 [EN010106/APP/6.1]**.

Table 5. Duration Criteria

Criteria level	Description
Temporary	Less than 12 months
Short term	0–5 years
Medium term	5–10 years
Long term	10+ years

2.4.17 The reversibility of an effect relates to the prospects and practicality of an effect being able to be reversed and is determined based on the indicative criteria set out in **Table 6** below.

Table 6. Reversibility Criteria

Criteria level Description

Reversible	Change can be wholly or largely reversed. For example the removal of a solar farm development following decommissioning.
Partially reversible	Change is partially reversible. For example the restoration of a quarry to something similar to the baseline.
Irreversible	Change cannot realistically be reversed, i.e. it is permanent. For example a residential development.

Magnitude Criteria

2.4.18 The factors above are considered in combination to provide an overall magnitude of change for each receptor, the magnitude of change for landscape receptors may be interpreted as per the indicative scales in **Table 7** below.

Table 7. Landscape Magnitude Criteria (indicative)

Criteria level Description

High	Introduction of incongruous development which would result in noticeable change over an extensive area, affecting many key characteristics and the experience of the landscape.
Medium	Introduction of uncharacteristic development which would result in noticeable change over a large area, or more intensive change over a limited area, affecting some key characteristics and the experience of the landscape.
Low	Introduction of development that is not uncharacteristic which would result in a small change over a limited area affecting few characteristics.
Very Low	Little perceptible change to the landscape characteristics.

Assessing the Significance of Landscape Effects

2.4.19 The overall significance of landscape effects is a combination of the sensitivity of the landscape receptor and the magnitude of the effects. GLVIA3 (para 5.56) states that “*there is no definitive rule regarding what defines a significant effect, but in making the judgement it is reasonable to say that:*

- a. *major loss or irreversible negative effects, over an extensive area, or element and/or aesthetic and perceptual aspect that are key to the character of nationally valued landscape are likely to be of the greatest significance; and*
- b. *reversible negative effects of short duration, over a restricted area, on elements and/or aesthetic and perceptual aspects that contribute to but are not key characteristics of landscape value are likely to be the least significant and may depending upon the circumstance, be judged as not significant.”*

2.4.20 **Plate 1** below presents a diagram to describe the relationship between sensitivity and magnitude of impacts on the landscape to determine the effect. GLVIA 3 dictates that this is not a prescriptive process and is provided as a guide to how combinations of sensitivity and magnitude are typically combined.

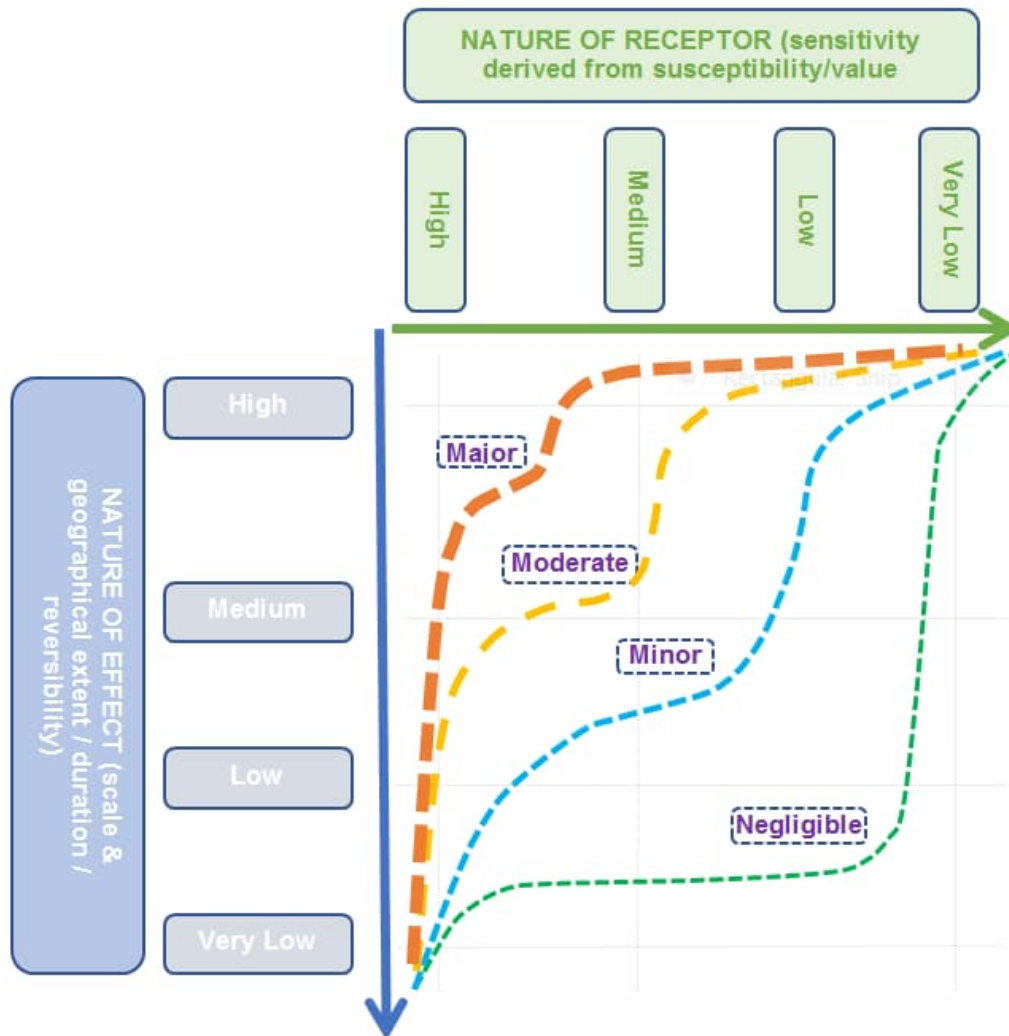


Plate 1. Classification of Landscape Effects

2.5 Visual Assessment Methodology

- 2.5.1 “An assessment of visual effects deals with the effects of change and development on the views available to people and their visual amenity” (GLVIA3, para 6.1).
- 2.5.2 In predicting the effects of the Scheme on the viewpoints being assessed, GLVIA3 states it is helpful to consider (but not restricted to) the following issues:
- a. Nature of the view (full, partial or glimpsed);
 - b. Proportion of the proposed development visible;

- c. Distance of the viewpoint from the Scheme and whether it would be the focus of the view or only a small element;
 - d. Whether the view is stationary, transient or sequential; and
 - e. The nature of the changes to the view.
- 2.5.3 Additionally, the seasonal effects of vegetation are to be considered, in particular the varying degree of screening and filtering of views.

Assessing the Significance of Effects

- 2.5.4 The overall significance of visual effects is a combination of the sensitivity of the visual receptor and the magnitude of the visual effects. GLVIA3 clearly states that there is no definitive rule regarding what defines a significant effect, but in making the judgement the following points should be considered (GLVIA, para 6.44):
- a. Effects on people who are particularly sensitive to changes of views and visual amenity are more likely to be significant;
 - b. Effects on people at recognised and important viewpoints or from recognised scenic routes are more likely to be significant; and
 - c. Large-scale changes which introduce new, non-characteristic or discordant or intrusive elements into the view are more likely to be significant than small changes or changes involving features already present within the view.

Sensitivity of Viewpoints

- 2.5.5 The susceptibility of visual receptors to changes in the view and visual amenity is related to the activity they are engaged in and the extent to which their attention is focussed on the views and visual amenity at that location. As such, those receptors most sensitive to change are likely to include people engaged in outdoor activities where an appreciation of the landscape is the focus, or residents in areas where the landscape setting contributes to the setting of the properties.
- 2.5.6 Conversely, those considered least sensitive to change include (but are not restricted to) people engaged in outdoor sports or recreation where there is no focus on the surrounding landscape/views, and people at their place of work where the focus is on the work activity.
- 2.5.7 Refer to **Table 8** for a full description of the criteria used to assess the susceptibility of viewpoints.

Value of Views

- 2.5.8 In making judgements about the value of each view, the assessment should take into account the following:
- a. Recognition of the value to a particular view, e.g. in relation to heritage assets or planning designations;
 - b. Indicators of the value attached to views by others, e.g., in guide books, tourist maps, literary references, painting etc.

2.5.9 **Table 9** below shows a full description of the criteria used to assess the value of the view.

Table 8. Visual Susceptibility to Change Criteria

Criteria level Susceptibility to change

High	Residents at home; People engaged in outdoor recreation, whose attention/interest is likely to be focused on the landscape or particular views, including strategic/ popular public rights of way; Visitors to heritage assets or other attractions, where views of the surroundings are an important contributor to the experience; Communities where views contribute to the landscape setting enjoyed by residents; and Travellers on scenic routes.
Medium	Travellers on local roads, rail, or other transport routes; Users of local, and less used Public Rights of Way or where the attention is not focused on the landscape; and Schools and other institutional buildings and their outdoor areas, play areas.
Low	Travellers on road, rail or other transport routes not focused on the landscape/particular views e.g. on motorways and “A” road or commuter routes; People engaged in outdoor sport/recreation which does not involve/depend upon appreciation of views of the landscape; and People at their place of work whose attention may be focused on their work/activity and not their surroundings.

Table 9. Value of View Criteria

Criteria level Description

High	Views or viewing places identified in regional strategies. A recognised high quality view, well- frequented and/or promoted as a beauty spot/visitor destination. A view with cultural associations (recognised in art, literature or other media). A view which relates to the experience of other features, for example heritage assets.
Medium	Views across high quality landscape which might include features of interest, such as landmarks, which may be identified in the Local Plan. The view, whilst it may be valued locally, is not widely recognised for its quality or has low visitor numbers. The view has no strong cultural associations.
Low	Views of relatively common landscape elements, likely to be valued by the communities which experience the view.

Criteria Description level

Very Low Views across poor quality landscape with a high degree of detracting or common elements.

2.5.10 In combining susceptibility to change and value it is generally accepted that a combination of high susceptible and high value is likely to result in the highest sensitivity, whereas a low susceptibility and low value is likely to resulting in the lowest level of sensitivity. A summary of the likely characteristics of the different levels of sensitivity is described below in **Table 10**. It should be noted that these are indicative and in practice there is not a clear distinction between criteria levels.

Table 10. Visual Sensitivity Criteria

Criteria level	Description
High	A view that is well balanced, containing attractive features and notable for its scenic quality; and/or A view which is an important part of the receptor’s reason for being there; and/or A view which is experienced by large numbers of people and/or is recognised for its qualities.
Medium	An otherwise attractive view that includes some unattractive or discordant features, or visual detractors; and/or A view which plays a small part in the receptors being there; and/or A view that is recognised locally.
Low	A view that is unattractive, discordant and/or contains many visual detractors; and/or A view which is unlikely to be part of the receptor experience.

Magnitude of Visual Effects

2.5.11 The guidance provided in GLVIA3 (Ref. 1, para 6.38) requires that each of the following variables need to be evaluated for each of the visual effects identified:

- a. size or scale of the change of view, including loss of or additional views, degree of contrast in terms of form, mass, scale, colour and texture etc;
- b. geographic extent in terms of angle of view, distance etc; and
- c. duration and reversibility in term of longevity of effects and whether reversible.

2.5.12 The size and scale of an effect is determined by considering the amount of change experienced by a receptor, based upon the indicative criteria set out in **Table 11** below.

Table 11. Visual Size/ Scale Criteria

Criteria level	Description
Large	The Scheme may result in extensive changes to the existing view (including the loss of existing characteristic features and/ or introduction of new discordant landscape features); and/ or A change to an extensive proportion of the view; and/ or Views where the Scheme would become the dominant landscape feature or contract heavily with the current scene.
Medium	Changes will result in changes to the view but not fundamentally change its characteristics; and/ or Changes that would be immediately visible but not be the key features of the view.
Small	Changes which would not result in a change to the composition of the view; and/ or Changes that would only affect a small portion of the view or introduce new features that could be screened.

2.5.13 The geographical extent of an effect is determined by the indicative criteria set out in **Table 12** below. It should be noted that whether a view is at short, medium or long- range will vary depending upon the type of development proposed.

Table 12. Geographical Extent Criteria

Criteria level	Description
Large	Changes where the Scheme are located: <ul style="list-style-type: none"> • in the main focus of the view; and/ or • at close range; and/or • over a large area.
Medium	Changes where the Scheme are located: <ul style="list-style-type: none"> • obliquely to the main focus of the view; and/ or • at medium range; and/ or • over a narrow area.
Small	Changes where the Scheme are located: <ul style="list-style-type: none"> • on the periphery of the main focus of the view; and/ or • at long range; and/ or • over a small area.

Duration and Reversibility

2.5.14 The duration of an effect and its reversibility are linked but separate consideration of the criteria for defining these are as below in

2.5.15 **Table 13** and **Table 14**. As stated above, these duration criteria following the guidance as set out in GLVIA3 and as such differ from the criteria set out in **Chapter 5: EIA Methodology ES Volume 1 [EN010106/APP/6.1]**.

Table 13. Duration Criteria

Criteria level	Description
Temporary	Less than 12 months
Short-term	1–5 years
Medium-term	5–10 years
Long-term	10+ years

2.5.16 The reversibility of an effect relates to the prospects and practicality of an effect being able to be reversed and is determined based on the indicative criteria set out in **Table 14** below.

Table 14. Reversibility Criteria

Criteria level	Description
Reversible	Change can be wholly or largely reversed. For example the removal of a solar farm development following decommissioning.
Partially reversible	Change is partially reversible. For example the restoration of a quarry to something similar to the baseline.
Irreversible	Change cannot realistically be reversed, <i>i.e.</i> it is permanent. For example a new housing development.

2.5.17 These four factors are then considered together to derive an overall magnitude of change for each receptor, which is determined by use of professional judgement, based on the indicative criteria set out in **Table 15** below.

Table 15. Visual Magnitude Criteria (indicative)

Criteria level	Description
High	The Scheme, or a part of it, would become the dominant and contrasting feature or focal point in the view. Little or no scope for adequate mitigation.
Medium	The Scheme, or a part of it, would form a prominent feature or element of the view which is readily apparent to the receptor in the view. Partial mitigation is possible.
Low	The Scheme, or a part of it, would be noticeable but not alter the overall balance of features and elements that comprise the existing view. Partial or full mitigation is possible.
Very Low	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 and/or occupy a negligible proportion of the view. Full mitigation is possible.
None	No change to the landscape receptor.

Beneficial or Adverse Change

- 2.5.18 The magnitude also needs to be assessed as to whether it is a beneficial or adverse change. These are defined as follows:
- a. For beneficial change the Scheme, or part of it, would appear in keeping with existing landscape character and would make a positive visual and/or physical contribution to key characteristics. Removal of uncharacteristic features would also be a beneficial change; and
 - b. For adverse change the Scheme, or part of it, would be perceived as an alien or intrusive component in the context of existing landscape character and would have a negative visual and/ or physical effect.

Assessing the Significance of Visual Effects

- 2.5.19 The overall significance of visual effects is a combination of the sensitivity of the visual receptor and the magnitude of the effects. GLVIA3 (Ref. 1, para 6.42) states that *“the significance of visual effects is not absolute and can only be defined in relation to each development and its specific location.”*
- 2.5.20 In paragraph 6.44 it also states that in making judgements about the significance of visual effects the following points should be noted:
- a. Effects on people who are particularly sensitive to changes in the views and visual amenity are more likely to be significant;
 - b. Effects on people at recognised and important viewpoints or from recognised scenic routes are more likely to be significant; and
 - c. Large-scale changes which introduce new, non-characteristic or discordant features or intrusive elements into the view are more likely to be significant than small changes or changes involving features already present within the view.
- 2.5.21 The relationship between the sensitivity of receptors and the magnitude of impacts allows the effects to be classified. **Plate 1** provides a diagram used to describe this relationship, and so allow a relative level of significance of any predicted effects on visual receptors to be categorised.
- 2.5.22 The diagram is indicative of a continuum of effects which are assessed by professional judgement and justification, further clarification of the type of effects which are likely within each category can be found in **Table 16** below.

2.6 Levels of Effect

- 2.6.1 The objective of the assessment process is to identify and evaluate potential notable effects arising from the Scheme. The assessment identifies the residual effects likely to arise from the design taking into account mitigation measures and change over time. The level of effect is assessed by considering the sensitivity of the receptor and the predicted magnitude of effect in relation to the baseline conditions.
- 2.6.2 In order to provide a level of consistency and transparency to the assessment, and allow comparisons to be made between the various landscape and visual receptors subject to assessment, the assessment of beneficial and adverse effects is based on pre-defined criteria as outlined in

Table 16. When assessing the degree of individual effects, these may fall across several different categories and professional judgement is therefore used to determine which level best fits the overall effect on a landscape or visual receptor.

Table 16. Categories of Landscape and Visual Levels of Effect

Level of effect	Description of landscape effect	Description of visual effect
Major	Considerable change over an extensive area of a highly sensitive landscape, fundamentally affecting the key characteristics and the overall impression of its character.	The Scheme would become a prominent feature and would result in a very noticeable change to an existing highly sensitive and well composed view.
Moderate	Small or noticeable change to a highly sensitive landscape or more intensive change to a landscape of medium or low sensitivity, affecting some key characteristics and the overall impression of its character.	The Scheme would introduce some enhancing or detracting features to an existing highly sensitive and well composed view, or would be prominent within a less well composed and less sensitive view, resulting in a noticeable improvement or deterioration of the existing view.
Minor	Small change to a limited area of landscape of high or medium sensitivity or a more widespread area of a less sensitive landscape, affecting few characteristics without altering the overall impression of its character.	Where the Scheme would form a perceptible but not enhancing or detracting feature within a view of high or medium sensitivity or would be a more prominent feature within a poorly composed view of low sensitivity, resulting in a small improvement or deterioration of the existing view.
Negligible	No discernible improvement or deterioration to the existing landscape character.	No discernible improvement or deterioration in the existing view.
No Effect	The Scheme would not affect the landscape receptor.	The Scheme would not affect the view.

2.7 Cumulative Assessment

2.7.1 The methodology for the cumulative assessment follows that contained within GLVIA3. The GLVIA3 requires that the baseline includes additional changes to the baseline landscape or visual resources as a result of other existing developments. Therefore, existing developments are included in the baseline description, and cumulative effects of consented and proposed developments are considered separately.

2.7.2 A 5 km zone of influence (Zoi) identified for the Scheme has been used for the cumulative assessment to identify any developments where, as a result of their height and scale, may give rise to cumulative effects in combination with the Scheme.

Magnitude of Cumulative Change

2.7.3 Cumulative landscape and visual effects may result from additional changes to the baseline landscape or visual resources, as a result of the Scheme, in conjunction with other developments.

2.7.4 The principle of magnitude of cumulative change thus makes it possible for the Scheme to have a major effect on a particular receptor, while having only a minor cumulative effect in conjunction with other existing developments.

2.7.5 The cumulative landscape magnitude of change and cumulative visual magnitude of change are determined with reference to the criteria set out in **Table 7** (landscape) and **Table 15** (visual) and the following considerations:

- a. The number of visible existing and/or potentially visible developments;
and
- b. The distance to existing and/or developments.

Significance of Cumulative Effects

2.7.6 Determination of the significance of cumulative landscape and visual effects has been undertaken by employing professional judgement to combine and analyse the cumulative magnitude of change against the identified sensitivity to change. It should be noted that the cumulative assessment is the result of the addition of the Scheme to the identified cumulative baseline scenario.

3. References

- Ref. 1 Landscape Institute and the Institute of Environmental Management and Assessment. (2013). Guidelines for Landscape and Visual Impact Assessment 3rd Edition (GLVIA3). Not available online.
- Ref. 2 Landscape Institute (2019) Visual Representation of Development Proposals – Technical Guidance Note 06/19.
- Ref. 3 Landscape Institute (2020). Infrastructure Technical Guidance Note 04/20.
- Ref. 4 Landscape Institute (2017). Tranquillity Technical Guidance Note.
- Ref. 5 Landscape Institute (2021). Landscape Institute Technical Guidance Note 02/21: Assessing landscape value outside national designations.

4. Abbreviations

Abbreviation	Definition
ES	Environmental Statement
LVIA	Landscape and Visual Impact Assessment
ZTV	Zone of Theoretical Visibility
GLVIA	Guidelines for Landscape and Visual Impact Assessment
PV	Photovoltaic
TGN	Technical Guidance Note