

Elwy Solar Energy Farm

ENVIRONMENTAL STATEMENT APPENDIX 5.1 LANDSCAPE & VISUAL ASSESSMENT METHODOLOGY

P19-2023 | JULY 2020

1. LANDSCAPE AND VISUAL IMPACT ASSESSMENT METHODOLOGY

1.1 This Landscape and Visual Impact Assessment (LVIA) has been undertaken with regards to best practice as outlined within the following publications:

- Guidelines for Landscape and Visual Impact Assessment (3rd Edition, 2013) - Landscape Institute / Institute of Environmental Management and Assessment;
- Visual Representation of Development Proposals (2019) - Landscape Institute Technical Guidance Note 06/19;
- An Approach to Landscape Character Assessment (2014) - Natural England;
- An Approach to Landscape Sensitivity Assessment - To Inform Spatial Planning and Land Management (2019) - Natural England.

1.2 GLVIA3 states within paragraph 1.1 that "Landscape and Visual Impact Assessment (LVIA) 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 on people's views and visual amenity."¹

1.3 GLVIA3 also states within paragraph 1.17 that when identifying landscape and visual effects there is a "need for an approach that is in proportion to the scale of the project that is being assessed and the nature of the likely effects. Judgement needs to be exercised at all stages in terms of the scale of investigation that is appropriate and proportional."²

1.4 GLVIA3 recognises within paragraph 2.23 that "professional judgement is a very important part of LVIA. While there is some scope for quantitative measurement of some relatively objective matters much of the assessment must rely on qualitative judgements"³ undertaken by a landscape consultant or a Chartered Member of the Landscape Institute (CMLI).

1.5 GLVIA3 notes in paragraph 1.3 that "LVIA may be carried out either formally, as part of an Environmental Impact Assessment (EIA), or informally, as a contribution to the 'appraisal' of development proposals and planning applications."⁴ Although the proposed development is not subject to an EIA requiring an assessment of the likely significance of effects, this assessment is also titled as an LVIA rather than an 'appraisal' in the interests of common understanding with other planning consultants.

1.6 The effects on cultural heritage and ecology are not considered within this LVIA.

¹ Para 1.1, Page 4, GLVIA, 3rd Edition

² Para 1.17, Page 9, GLVIA, 3rd Edition

³ Para 2.23, Page 21, GLVIA, 3rd Edition

⁴ Para 1.3, Page 4, GLVIA, 3rd Edition

Study Area

1.7 The study area for this LVIA covers a 5km radius from the site. However, the main focus of the assessment was taken as a radius of up to 3km from the site as it is considered that even with clear visibility the proposals would not be perceptible in the landscape beyond this distance.

Effects Assessed

1.8 Landscape and visual effects are assessed through professional judgements on the sensitivity of landscape elements, character and visual receptors combined with the predicted magnitude of change arising from the proposals. The landscape and visual effects have been assessed in the following sections:

- Effects on landscape elements;
- Effects on landscape character; and
- Effects on visual amenity.

1.9 Sensitivity is defined in GLVIA3 as “a term applied to specific receptors, combining judgments of susceptibility of the receptor to a specific type of change or development proposed and the value related to that receptor.”⁵ Various factors in relation to the value and susceptibility of landscape elements, character, visual receptors or representative viewpoints are considered below and cross referenced to determine the overall sensitivity as shown in Table 1.

Table 1 Overall sensitivity of landscape and visual receptors

	VALUE			
		HIGH	MEDIUM	LOW
SUSCEPTIBILITY	HIGH	High	High	Medium
	MEDIUM	High	Medium	Medium
	LOW	Medium	Medium	Low

1.10 Magnitude of change is defined in GLVIA3 as “a term that combines judgements about the size and scale of the effect, the extent over which it occurs, whether it is reversible or irreversible and whether it is short or long term in duration.”⁶ Various factors contribute to the magnitude of change on landscape elements, character, visual receptors and representative viewpoints.

⁵ Glossary, Page 158, GLVIA, 3rd Edition

⁶ Glossary, Page 158, GLVIA, 3rd Edition

1.11 The sensitivity of the landscape and visual receptor and the magnitude of change arising from the proposals are cross referenced in **Table 11** to determine the overall degree of landscape and visual effects.

2. EFFECTS ON LANDSCAPE ELEMENTS

2.1 The effects on landscape elements are limited to within the site and includes the direct physical change to the fabric of the land, such as the removal of woodland, hedgerows or grassland to allow for the proposals.

Sensitivity of Landscape Elements

2.2 Sensitivity is determined by a combination of the value that is attached to a landscape element and the susceptibility of the landscape element to changes that would arise as a result of the proposals – see pages 88-90 of GLVIA3. Both value and susceptibility are assessed on a scale of high, medium or low.

2.3 The criteria for assessing the value of landscape elements and landscape character is shown in **Table 2**.

Table 2 Criteria for assessing the value of landscape elements and landscape character

HIGH	<p>Designated landscape including but not limited to World Heritage Sites, National Parks, Areas of Outstanding Natural Beauty considered to be an important component of the country's character experienced by a high number of people.</p> <p>Landscape condition is good and components are generally maintained to a high standard.</p> <p>In terms of seclusion, enclosure by land use, traffic and movement, light pollution and presence/absence of major infrastructure, the landscape has an elevated level of tranquillity.</p> <p>Rare or distinctive landscape elements and features are key components that contribute to the landscape character of the area.</p>
MEDIUM	<p>Undesignated landscape including urban fringe and rural countryside considered to be a distinctive component of the national or local landscape character.</p> <p>Landscape condition is fair and components are generally well maintained.</p> <p>In terms of seclusion, enclosure by land use, traffic and movement, light pollution and presence/absence of major infrastructure, the landscape has a moderate level of tranquillity.</p> <p>Rare or distinctive landscape elements and features are notable components that contribute to the character of the area.</p>

LOW	<p>Undesignated landscape including urban fringe and rural countryside considered to be of unremarkable character. Landscape condition may be poor and components poorly maintained or damaged.</p> <p>In terms of seclusion, enclosure by land use, traffic and movement, light pollution and presence/absence of major infrastructure, the landscape has limited levels of tranquillity.</p> <p>Rare or distinctive elements and features are not notable components that contribute to the landscape character of the area.</p>
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2.4 The criteria for assessing the susceptibility of landscape elements and landscape character is shown in **Table 3**.

Table 3 Criteria for assessing landscape susceptibility

HIGH	<p>Scale of enclosure – landscapes with a low capacity to accommodate the type of development being proposed owing to the interactions of topography, vegetation cover, built form, etc.</p> <p>Nature of land use – landscapes with no or little existing reference or context to the type of development being proposed.</p> <p>Nature of existing elements – landscapes with components that are not easily replaced or substituted (e.g. ancient woodland, mature trees, historic parkland, etc).</p> <p>Nature of existing features – landscapes where detracting features, major infrastructure or industry is not present or where present has a limited influence on landscape character.</p>
MEDIUM	<p>Scale of enclosure – landscapes with a medium capacity to accommodate the type of development being proposed owing to the interactions of topography, vegetation cover, built form, etc.</p> <p>Nature of land use – landscapes with some existing reference or context to the type of development being proposed.</p> <p>Nature of existing elements – landscapes with components that are easily replaced or substituted.</p> <p>Nature of existing features – landscapes where detracting features, major infrastructure or industry is present and has a noticeable influence on landscape character.</p>
LOW	<p>Scale of enclosure – landscapes with a high capacity to accommodate the type of development being proposed owing to the interactions of topography, vegetation cover, built form, etc.</p> <p>Nature of land use – landscapes with extensive existing reference or context to the type of development being proposed.</p>

	Nature of existing features – landscapes where detracting features or major infrastructure is present and has a dominating influence on the landscape.
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2.5 Various factors in relation to the value and susceptibility of landscape elements are assessed and cross referenced to determine the overall sensitivity as shown in **Table 1**.

2.6 Sensitivity is defined in GLVIA3 as “a term applied to specific receptors, combining judgments of susceptibility of the receptor to a specific type of change or development proposed and the value related to that receptor.”⁷ The definitions for high, medium, low landscape sensitivity are shown in Table 4.

Table 4 Criteria for assessing landscape sensitivity

HIGH	Landscape element or character area defined as being of high value combined with a high or medium susceptibility to change.
	Landscape element or character area defined as being of medium value combined with a high susceptibility to change.
MEDIUM	Landscape element or character area defined as being of high value combined with a low susceptibility to change.
	Landscape element or character area defined as being of medium value combined with a medium or low susceptibility to change.
	Landscape element or character area defined as being of low value combined with a high or medium susceptibility to change.
LOW	Landscape element or character area defined as being of low value combined with a low susceptibility to change.

Magnitude of Change on Landscape Elements

2.7 Professional judgement has been used to determine the magnitude of change on individual landscape elements within the site as shown in **Table 5**.

Table 5 Criteria for assessing magnitude of change for landscape elements

HIGH	Total loss/gain of a landscape element.
MEDIUM	Partial loss/gain or alteration to part of a landscape element.

⁷ Glossary, Page 158, GLVIA, 3rd Edition

LOW	Minor loss/gain or alteration to part of a landscape element.
NEGLIGIBLE	No loss/gain or very limited alteration to part of a landscape element.

3. EFFECTS ON LANDSCAPE CHARACTER

3.1 Landscape character is defined as the “distinct, recognisable and consistent pattern of elements in the landscape that makes one landscape different from another, rather than better or worse.”⁸

3.2 The assessment of effects on landscape character considers how the introduction of new landscape elements physically alters the landform, landcover, landscape pattern and perceptual attributes of the site or how visibility of the proposals changes the way in which the landscape character is perceived.

Sensitivity of Landscape Character

3.3 Sensitivity is determined by a combination of the value that is attached to a landscape and the susceptibility of the landscape to changes that would arise as a result of the proposals – see pages 88-90 of GLVIA3. Both value and susceptibility are assessed on a scale of high, medium or low.

3.4 The criteria for assessing the value of landscape character is shown in **Table 2**. The criteria for assessing the susceptibility of landscape character is shown in **Table 3**.

3.5 The overall sensitivity is determined through cross referencing the value and susceptibility of landscape character as shown in **Table 1**.

Magnitude of Change on Landscape Character

3.6 Professional judgement has been used to determine the magnitude of change on landscape character as shown in **Table 6**.

Table 6 Criteria for assessing magnitude of change on landscape character

HIGH	Introduction of major new elements into the landscape or some major change to the scale, landform, landcover or pattern of the landscape.
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⁸ Glossary, Page 157, GLVIA, 3rd Edition

MEDIUM	Introduction of some notable new elements into the landscape or some notable change to the scale, landform, landcover or pattern of the landscape.
LOW	Introduction of minor new elements into the landscape or some minor change to the scale, landform, landcover or pattern of the landscape.
NEGLIGIBLE	No notable or appreciable introduction of new elements into the landscape or change to the scale, landform, landcover or pattern of the landscape.

4. EFFECTS ON VISUAL AMENITY

4.1 Visual amenity is defined within GLVIA3 as the “overall pleasantness of the views people enjoy of their surroundings, which provides an attractive visual setting or backdrop for the enjoyment of activities of the people living, working, recreating, visiting or travelling through an area.”⁹

4.2 The effects on visual amenity considers the changes in views arising from the proposals in relation to visual receptors including settlements, residential properties, transport routes, recreational facilities and attractions; and representative viewpoints or specific locations within the study area as agreed with the Local Planning Authority.

Sensitivity of Visual Receptors

4.3 Sensitivity is determined by a combination of the value that is attached to a view and the susceptibility of the visual receptor to changes in that view that would arise as a result of the proposals – see pages 113-114 of GLVIA3. Both value and susceptibility are assessed on a scale of high, medium or low.

4.4 The criteria for assessing the value of views are shown in **Table 7**.

⁹ Page 158, Glossary, GLVIA3

Table 7 Criteria for assessing the value of views

HIGH	Views with high scenic value within designated landscapes including but not limited to World Heritage Sites, National Parks, Areas of Outstanding Natural Beauty, etc. Likely to include key viewpoints on OS maps or reference within guidebooks, provision of facilities, presence of interpretation boards, etc.
MEDIUM	Views with moderate scenic value within undesignated landscape including urban fringe and rural countryside.
LOW	Views with unremarkable scenic value within undesignated landscape with partly degraded visual quality and detractors.

4.5 The criteria for assessing the susceptibility of views are shown in **Table 8**.

Table 8 Criteria for assessing visual susceptibility

HIGH	Includes occupiers of residential properties and people engaged in recreational activities in the countryside using public rights of way (PROW).
MEDIUM	Includes people engaged in outdoor sporting activities and people travelling through the landscape on minor roads and trains.
LOW	Includes people at places of work e.g. industrial and commercial premises and people travelling through the landscape on major roads and motorways.

4.6 Sensitivity is defined in GLVIA3 as “a term applied to specific receptors, combining judgments of susceptibility of the receptor to a specific type of change or development proposed and the value related to that receptor.”¹⁰ The definitions for high, medium, low visual sensitivity are shown in Table 9.

¹⁰ Glossary, Page 158, GLVIA, 3rd Edition

Table 9 Criteria for assessing visual sensitivity

HIGH	<p>Visual receptor defined as being of high value combined with a high or medium susceptibility to change.</p> <p>Visual receptor defined as being of medium value combined with a high susceptibility to change.</p>
MEDIUM	<p>Visual receptor defined as being of high value combined with a low susceptibility to change.</p> <p>Visual receptor defined as being of medium value combined with a medium or low susceptibility to change.</p> <p>Visual receptor defined as being of low value combined with a high or medium susceptibility to change.</p>
LOW	<p>Visual receptor defined as being of low value combined with a low susceptibility to change.</p>

Magnitude of Change on Visual Receptors

4.7 Professional judgement has been used to determine the magnitude of change on visual receptors as shown in **Table 10**.

Table 10 Criteria for assessing magnitude of change for visual receptors

HIGH	<p>Major change in the view that has a defining influence on the overall view with many visual receptors affected.</p>
MEDIUM	<p>Some change in the view that is clearly visible and forms an important but not defining element in the view.</p>
LOW	<p>Some change in the view that is appreciable with few visual receptors affected.</p>
NEGLIGIBLE	<p>No notable change in the view.</p>

5.

6. SIGNIFICANCE OF LANDSCAPE AND VISUAL EFFECTS

6.1 The likely significance of effects is dependent on all of the factors considered in the sensitivity and the magnitude of change upon the relevant landscape and visual receptors. These factors are assimilated to assess whether or not the proposed development will have a likely significant or not significant effect. The variables considered in the evaluation of the sensitivity and the magnitude of change is reviewed holistically to inform the professional judgement of significance.

6.2 A likely significant effect will occur where the combination of the variables results in the proposed development having a definitive effect on the view. A not significant effect will occur where the appearance of the proposed development is not definitive, and the effect continues to be defined principally by its baseline condition.

6.3 Within **Table 11** below, the major effects highlighted in dark grey are considered to be significant in terms of the EIA Regulations. The moderate effects highlighted in light grey are potentially significant, and a summary justification is provided as to whether the effect in question is significant or not significant. It should be noted that whilst an individual effect may be significant, it does not necessarily follow that the proposed development would be unacceptable in the planning balance. The cross referencing of the sensitivity and magnitude of change on the landscape and visual receptor determines the significance of effect as shown in **Table 11**.

Table 11 Significance of landscape and visual effects

		Sensitivity		
		HIGH	MEDIUM	LOW
Magnitude of Change	HIGH	Major	Major	Moderate
	MEDIUM	Major	Moderate	Minor
	LOW	Moderate	Minor	Minor
	NEGLIGIBLE	Negligible	Negligible	Negligible

7. TYPICAL DESCRIPTORS OF LANDSCAPE EFFECTS

7.1 The typical descriptors of landscape significance of effects are detailed within **Table 12** below.

Table 12 Typical Descriptors of Landscape Significance of Effects

<p>MAJOR BENEFICIAL</p>	<p>Typically, the landscape resource has a high sensitivity with the proposals representing a high beneficial magnitude of change and/or the proposed changes would:</p> <ul style="list-style-type: none"> - enhance the character (including value) of the landscape; - enhance the restoration of characteristic features and elements lost as a result of changes from inappropriate management or development; - enable a sense of place to be enhanced.
<p>MODERATE BENEFICIAL</p>	<p>Typically, the landscape resource has a medium sensitivity with the proposals representing a medium beneficial magnitude of change and/or the proposed changes would:</p> <ul style="list-style-type: none"> - enhance the character (including value) of the landscape; - enable the restoration of characteristic features and elements partially lost or diminished as a result of changes from inappropriate management or development; - enable a sense of place to be restored.
<p>MINOR BENEFICIAL</p>	<p>Typically, the landscape resource has a low sensitivity with the proposals representing a low beneficial magnitude of change and/or the proposed changes would:</p> <ul style="list-style-type: none"> - complement the character (including value) of the landscape; - maintain or enhance characteristic features or elements; - enable some sense of place to be restored.
<p>NEGLIGIBLE/ NEUTRAL</p>	<p>Typically, the proposed changes would (on balance) maintain the character (including value) of the landscape and would:</p> <ul style="list-style-type: none"> - be in keeping with landscape character and blend in with characteristic features and elements; - Enable a sense of place to be maintained.
<p>MINOR ADVERSE</p>	<p>Typically, the landscape resource has a low sensitivity with the proposal representing a low adverse magnitude of change and/or the proposed changes would:</p> <ul style="list-style-type: none"> - not quite fit the character (including value) of the landscape; - be a variance with characteristic features and elements; - detract from sense of place.
<p>MODERATE ADVERSE</p>	<p>Typically, the landscape resource has a medium sensitivity with the proposals representing a medium adverse magnitude of change and/or the proposed changes would:</p> <ul style="list-style-type: none"> - conflict with the character (including value) of the landscape; - have an adverse effect on characteristic features or elements; - diminish a sense of place.

MAJOR ADVERSE	<p>Typically, the landscape resource has a high sensitivity with the proposals representing a high adverse magnitude of change and/or the proposed changes would:</p> <ul style="list-style-type: none"> - be at variance with the character (including value) of the landscape; - degrade or diminish the integrity of a range of characteristic features and elements or cause them to be lost; - change a sense of place.
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8. TYPICAL DESCRIPTORS OF VISUAL EFFECTS

8.1 The typical descriptors of visual significance of effects are detailed within **Table 13** below.

Table 13 Typical Descriptors of Visual Significance of Effects

MAJOR BENEFICIAL	Typically, the visual receptor is of high sensitivity with the proposals representing a high magnitude of change and/or the proposals would result in a major improvement in the view.
MODERATE BENEFICIAL	Typically, the visual receptor is of medium sensitivity with the proposals representing a medium magnitude of change and/or the proposals would result in a clear improvement in the view.
MINOR BENEFICIAL	Typically, the visual receptor is of low sensitivity with the proposals representing a low magnitude of change and/or the proposals would result in a slight improvement in the view.
NEGLIGIBLE/ NEUTRAL	Typically, the proposed changes would be in keeping with, and would maintain, the existing view or where (on balance) the proposed changes would maintain the quality of the view (which may include adverse effects which are offset by beneficial effects for the same receptor) or due to distance from the receptor, the proposed change would be barely perceptible to the naked eye.
MINOR ADVERSE	Typically, the visual receptor is of low sensitivity with the proposals representing a low magnitude of change and/or the proposals would result in a slight deterioration in the view.
MODERATE ADVERSE	Typically, the visual receptor is of medium sensitivity with the proposals representing a medium magnitude of change and/or the proposals would result in a clear deterioration in the view.
MAJOR ADVERSE	Typically, the visual receptor is of high sensitivity with the proposals representing a high magnitude of change and/or the proposals would result in a major deterioration in the view.

9. NATURE OF EFFECTS

9.1 GLVIA3 includes an entry that states "effects can be described as positive or negative (or in some cases neutral) in their consequences for views and visual amenity."¹¹ GLVIA3 does not, however, state how negative or positive effects should be assessed, and this therefore becomes a matter of professional judgement rather than reasoned criteria. Due to inconsistencies with the assessment of negative or positive effects a precautionary approach is applied to this LVIA which assumes that all landscape and visual effects are considered to be negative or adverse unless otherwise stated

¹¹ Para 6.29, Page 113, GLVIA 3rd Edition