

Preliminary Environmental Information Report

Appendix 11A: Landscape and Visual Impact Assessment Methodology and Glossary

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1.1 Introduction

1.1.1 The Landscape and Visual Impact Assessment (LVIA) and Cumulative LVIA (CLVIA) identifies, predicts, and evaluates the potential landscape and visual effects that may result from the Proposed Development. This assessment assesses the effects of the Proposed Development described in **Chapter 2: Description of the Proposed Development**.

1.1.2 This appendix has been structured as follows:

- Overview of LVA Methodology;
- Data Sources and Site Survey;
- Integrated Design and Assessment;
- Assessing Landscape Effects;
- Assessing Visual Effects;
- Assessing Cumulative Landscape and Visual Effects;
- Evaluation of Landscape and Visual Effects;
- Nature of Effect;
- Production of Zone of Theoretical Visibility (ZTV)s and Visualisations; and
- Glossary.

1.2 Overview of LVIA Methodology

1.2.1 The LVIA assesses the likely effects of the Proposed Development on the landscape and visual resource, encompassing effects on landscape elements, characteristics and landscape character, designated landscapes, visual effects and cumulative effects.

1.2.2 Essentially, the landscape and visual effects (and whether it is significant) are determined by an assessment of the nature or 'sensitivity' of each receptor or group of receptors and the nature of the effect or 'magnitude of change' that would result from the Proposed Development. The evaluation of sensitivity takes account of the

value and susceptibility of the receptor to the Proposed Development. This is combined with an assessment of the magnitude of change which takes account of factors such as the size and scale of the proposed change and the geographical extent. Other factors regarding the nature of the effect such as the duration of change and whether the effect is cumulative are also noted. By combining assessments of sensitivity and magnitude of change, a level of landscape or visual effect as well as the nature of that effect can be evaluated and determined.

- 1.2.3 The type or nature of effect is described as either direct or indirect; temporary or permanent (reversible); cumulative; and positive, neutral or negative. The assessment has also considered the cumulative effects resulting from the Proposed Development in combination with other existing and consented solar farms, and solar farms at the planning application stage.
- 1.2.4 The time period for the assessment covers phases of development related to the construction of the Proposed Development and associated infrastructure, its operation, and decommissioning.
- 1.2.5 LVIA unavoidably involves a combination of both quantitative and subjective assessment and wherever possible a consensus of professional opinion has been sought through consultation, internal peer review, and the adoption of a systematic, impartial, and professional approach.

Technical guidance and best practice

- 1.2.6 The methodology for the LVIA accords with the Landscape Institute and IEMA *Guidelines for Landscape and Visual Impact Assessment*, 3rd Edition¹ (hereafter referred to as GLVIA 3). In addition to planning policy documents and other supporting technical guidance, the LVIA methodology includes, but is not limited to the following:

¹ Landscape Institute and the Institute of Environmental Management and Assessment, (2013). *Guidelines for Landscape and Visual Impact Assessment*. 3rd edition. London. Routledge

- *Using LANDMAP in Landscape and Visual Impact Assessments GN46*²;
- *Technical Guidance Note 02/21 - Assessing landscape value outside national designations*³;
- *An Approach to Seascape Sensitivity Assessment (MMO1204)*⁴
- *Planning Guidance for the Development of Large-Scale Ground Mounted Solar PV Systems, Building Research Establishment, 2014*⁵;
- *Visual Representation of Development Proposals, TGN 06/19, Landscape Institute, September 2019*⁶;
- *Technical Information Note 04/2020 – Infrastructure*⁷; and
- *Biodiversity Guidance for Solar Developments*⁸.

Defining the LVA Study Area

1.2.7 GLVIA3 recommends that ‘*The level of detail provided should be that which is reasonably required to assess the likely significant effects*’. Paragraph 5.2 also states that ‘*The Study Area should include the site itself and the full extent of the wider landscape around it which the Project may influence in a significant manner*’ Current NRW guidance² advises that the LVIA Study Area for structures with a height

² Natural Resources Wales. (2021). Using LANDMAP in Landscape and Visual Impact Assessments GN46. (Online). Available at: <https://naturalresourceswales.gov.uk/guidance-and-advice/business-sectors/planning-and-development/evidence-to-inform-development-planning/using-landmap-in-landscape-and-visual-impact-assessments-gn46/?lang=en> (Accessed September 2023).

³ Landscape Institute (2021). Technical Guidance Note 02/21 - Assessing landscape value outside national designations. (Online). Available at: <https://www.landscapeinstitute.org/publication/tgn-02-21-assessing-landscape-value-outside-national-designations/> (Accessed November 2024).

⁴ MMO. (2019). An Approach to Seascape Sensitivity Assessment. A report produced for the Marine Management Organisation. MMO Project No: 1204, December 2019, 41pp. (Online). Available at [MMO1204 An Approach to seascape sensitivity assessment for publication a.pdf](https://www.marine.gov.uk/publications/2019-12-04-mm01204-an-approach-to-seascape-sensitivity-assessment-for-publication-a.pdf). (Accessed September 2025).

⁵ Building Research Establishment (BRE) National Solar Centre, (2013). Planning guidance for the development of large scale ground mounted solar PV systems. (Online). Available at: [KN5524 Planning Guidance reduced.pdf](https://www.bre.co.uk/~/media/Files/KN5524_Planning_Guidance_reduced.pdf) (Accessed November 2024).

⁶ Landscape Institute. (2019). Technical Guidance Note 06/19 Visual Representation of Development Proposals. London. Landscape Institute. (Online). Available at: <https://www.landscapeinstitute.org/visualisation/> (Accessed April 2024).

⁷ Landscape Institute (2020). Technical Information Note 04/2020 – Infrastructure. (Online). Available at: <https://landscapewpstorage01.blob.core.windows.net/www-landscapeinstitute-org/2018/01/LI-Infrastructure-TGN-FINAL-200924.pdf> (Accessed November 2024).

⁸ Building Research Establishment (BRE) National Solar Centre. (2014). Biodiversity Guidance for Solar Developments. (Online). Available at: [NSC-Biodiversity-Guidance.pdf](https://www.bre.co.uk/~/media/Files/NSC-Biodiversity-Guidance.pdf) (Accessed November 2024).

of less than 25m should extend to a 2km distance. The Study Area is therefore based on professional judgement to capture areas that are potentially and likely to be significantly affected by the Proposed Development. This judgement is based on an understanding of the local landscape character and the scale of the construction and development activities proposed within the Red Line Boundary as well as a review of Study Areas used for similar solar projects.

- 1.2.8 As per the scoping consultation process, an initial LVIA Study Area was set out to extend 5km from the Red Line Boundary of the Proposed Development. This extent is illustrated in **Figure 11.1**. While the maximum height of the Solar Panels would be 3.5m, associated infrastructure such as containers housing substations or transformers could reach up to 9.5m. In line with NRW guidance referenced above, this informed a reduction of the Study Area from 5km to 2km to enable a more focussed review.
- 1.2.9 The 5km radius provided a starting point for desk-based analysis, while the 2km extent allowed for targeted fieldwork. However, field observations confirmed that the area where significant effects could potentially arise lies within 1km of the Red Line Boundary.
- 1.2.10 Accordingly, the formal Study Area on which the assessment is based has been set at 1km, as shown in **Figure 11.7**. It is important to note that the defined LVIA Study Area does not represent the limit of potential visibility but the limit to which significant effects are anticipated.

Desk-based and site survey work

- 1.2.11 The LVIA is informed by desk-based studies and site and field survey work undertaken within the LVIA Study Area.
- 1.2.12 A preliminary desk-based assessment was undertaken of landscape and visual receptors using a range of map-based data and related computer and digital analysis including ZTV, digital and / or surface terrain modelling and wireframe and street view software. This information was used to inform initial Scoping Report and focus the Site and field survey work and likely locations for viewpoint photography for the

PIER LVIA.

1.2.13 The field studies have included documented visits to all relevant landscape and visual receptors to assess the likely effects of the Proposed Development in the field, checking data, 'ground truthing' and examining landscape elements, characteristics / character and views / visual amenity.

1.2.14 Site and field survey activities include:

- Site survey verification of landscape elements within the Site Boundary where potential effects are likely;
- Field survey verification of the ZTV from landscape and visual receptor locations and transport and recreational routes through the LVA Study Area ;
- Micro-siting of viewpoint locations and recording of panoramic baseline photography and subsequent visual assessment from the assessment viewpoints; and
- Field survey assessment and verification of likely landscape, visual and cumulative effects.

1.2.15 The viewpoint photography and visual assessment surveys were undertaken in October and November 2024, and February 2025.

1.2.16 All site survey work was undertaken in fair weather conditions with good visibility.

1.3 Integrated Design and Assessment

1.3.1 Design is an integrated and iterative part of the LVIA process which aims to 'design out' material effects via a design that aims to reduce or eliminate these effects. Mitigation measures related to landscape design and management, where appropriate, can be important tools to mitigate any material effects. Potentially material landscape and visual effects and the constraints and opportunities connected with their resolution are identified through the LVIA process.

1.3.2 In particular the advice from Newport City Council and Monmouthshire County

Council and the following documents is relevant to the design of the Proposed Development:

- *Gwent Levels Landscape Character Assessment*, Chris Blandford Associates, 2017⁹; and
- *LANDMAP Aspect Areas*, Natural Resources Wales¹⁰.

Potential effects during Construction

1.3.3 A range of potential effects on the landscape and visual resource are likely during the construction of the Proposed Development. An appraisal of the potential effects helps to define the scope of the LVIA and develop an integrated design and mitigation response which can be embedded into the Proposed Development. The potential effects likely to result from construction are described below.

- **Landscape Effects:**
 - Effects on landscape elements, features and patterns (including, but not limited to soils, landform, ground vegetation, hedgerows / field boundaries, trees / forestry and buildings) and other characteristic elements of the host LANDMAP Aspect Areas as a result of land preparation including site clearance and earthworks.
 - Effects on landscape character and key characteristics, particularly of the host and surrounding LANDMAP Aspect Areas, including perceptual characteristics and qualities as a result of construction activities. The construction activities are likely to include the presence of construction staff and machinery, cranes, vehicle movements, contractors' facilities and site access associated with the Proposed Development.

⁹ Chris Blandford Associates. (2017). *Gwent Levels Landscape Character Assessment*. (Online). Available at [Appendix+1+Landscape+Character+Assessment.pdf](#). (Accessed November 2024)

¹⁰ Natural Resources Wales (2021). *Wales Environmental Information Portal – open data*. (Online). Available at [View open data on access, flood, habitats, landscapes, marine, designated land, water quality, and woodlands | Wales Environmental Information Portal](#). (Accessed November 2024)

- Effects on the special landscape qualities and integrity of designated landscapes through the potential degradation or erosion of landscape elements and patterns and perceptual characteristics, particularly those that form key characteristic elements of host and surrounding LANDMAP Aspect Areas or contribute to their value as a result of the above construction activities.
- **Visual Effects:**
 - Effects on the views and visual amenity experienced by people undertaking various activities at various locations, distances and directions from the proposed land preparation and construction activities. These visual effects could be experienced from one location or sequentially as part of a route through the landscape such as a cycle route or long-distance footpath.
- **Cumulative effects:**
 - Cumulative effects could occur as a result of multiple solar farm construction activities affecting a landscape or visual receptor.
 - Mitigation and design responses may include a range of design decisions about the location, form, process and timing of construction related infrastructure / operations to mitigate potential landscape and visual effects (avoid, reduce or compensate) as well as reference to a range of best practice behaviours and processes undertaken as part of construction site operation.

Potential Effects during Operation

- 1.3.4 The potential effects during operation relate principally to the presence of the Proposed Development (PV Arrays and associated equipment housed in containers and perimeter fencing) and its on-going maintenance during the operational period. This is likely to lead to long-term (reversible) effects on landscape and visual receptors.
- 1.3.5 Embedded mitigation at this stage includes the retention of hedgerows and trees where they do not interfere with operational or ecological objectives. These will be

reinforced, managed and supplemented to ensure screening and containment of the PV Arrays. Detailed landscape mitigation plans will be provided at ES stage.

Potential Effects during Decommissioning

- 1.3.6 The Proposed Development would be decommissioned, during this a short term period similar to that of construction where the equipment is removed and then a longer term stage following land reinstatement, leading to a whole or partial reversal of the landscape and visual effects.

1.4 Assessing Landscape Effects

- 1.4.1 Landscape Effects are defined by the Landscape Institute in GLVIA 3, paragraphs 5.1 and 5.2 as follows:

“An assessment of landscape effects deals with the effects of change and development on landscape as a resource. The concern ... is with how the proposal will affect the elements that make up the landscape, the aesthetic and perceptual aspects of the landscape and its distinctive character. ... The area of landscape that should be covered in assessing landscape effects should include the site itself and the full extent of the wider landscape around it which the development may influence in a significant manner.”

- 1.4.2 In accordance with GLVIA 3 the term ‘landscape’ encompasses areas of ‘townscape’ and coastal areas of ‘seascape’. Areas of landscape are relevant to this assessment, and they are described as follows.

Landscape character

- 1.4.3 GLVIA 3, paragraph 5.4, advises that Landscape Character Assessment should be regarded as the main source for baseline studies. In Wales Landscape Character Assessments have been produced at a national level and in some cases at a regional level but more detailed environmental information including that for landscape character has been compiled using LANDMAP which uses Aspect Areas in place of Landscape Character Areas/Types. Due to the coastal/estuary location of the Site baseline information will also be sourced from the National Seascape

Assessment for Wales which breaks the coastal waters around Wales into Marine Character Areas (MCA's) which will be considered during the assessment. GLVIA 3 identifies the following factors which combine to create areas of distinct landscape character:

“the elements that make up the landscape in the study area including:

physical influences – geology, soils, landform, drainage and water bodies;

*lanver, including different types of vegetation and patterns and types of tree cover;
and*

the influence of human activity, including land use and management, the character of settlements and buildings, and pattern and type of fields and enclosure.

The aesthetic and perceptual aspects of the landscape – such as, for example, its scale, complexity, openness, tranquillity or wildness;

The overall character of the landscape in the study area, including any distinctive Landscape Character Types or Areas that can be identified, and the particular combinations of elements and aesthetic and perceptual aspects that make each distinctive, usually by identification as key characteristics of the landscape.”

Landscape effects

1.4.4 The potential landscape effects, occurring during the construction, operation and decommissioning periods of the Proposed Development may therefore include, but are not restricted to the following:

- **Changes to landscape elements:** The addition of new elements (Solar Panels and associated equipment housed in containers and perimeter fencing) or the removal of existing elements such as trees, vegetation and buildings and other characteristic elements or valued features of the host LANDMAP aspect areas;
- **Changes to landscape qualities:** Degradation or erosion of landscape elements and patterns and perceptual characteristics, particularly those

that form key characteristic elements of the host and surrounding LCA's, LANDMAP aspect areas and MCA's or contribute to the landscape value of host or adjacent landscape designations;

- **Changes to landscape character:** Landscape character may be affected through the incremental effect on characteristic elements, landscape patterns and qualities (including perceptual characteristics) and the addition of new features, the magnitude of which is sufficient to alter the overall landscape character within LCA's, LANDMAP aspect areas, MCA's and/or landscape designations;
- **Changes to designated landscapes:** Including nationally and locally designated landscapes that would affect the special landscape qualities underpinning these areas and their integrity; and
- **Cumulative landscape effects:** Where more than one development of a similar type may lead to a cumulative effect.

1.4.5 Development may have a direct (physical) effect on the landscape as well as an indirect effect which would be perceived from the wider landscape, outside the immediate site area and its associated LANDMAP aspect areas/designations. Landscape effects also have to be recognised in terms of natural and man-made processes which can change or alter the landscape over time.

Evaluating landscape sensitivity to change

1.4.6 The assessment of sensitivity takes account of the landscape value and the susceptibility of the receptor to the Proposed Development.

1.4.7 Landscape sensitivity often varies in response to both the type and phase of the development proposed and its location, such that sensitivity needs to be considered on a case-by-case basis. It should not be confused with 'inherent sensitivity' where areas of the landscape may be referred to as inherently of 'high' or 'low' sensitivity. For example, a National Park may be described as inherently of high sensitivity on account of its designation and value, although it may prove to be less sensitive or susceptible to particular development, and of variable sensitivity across its geographical area. Alternatively, an undesignated landscape may be of high

sensitivity to a particular development regardless of the lack of local or national designation.

Value of the Landscape Receptor

- 1.4.8 The value of a landscape receptor is a reflection of the value that society attaches to that landscape. The assessment of the landscape value is classified as high, medium, low, or negligible and the basis for this assessment is made clear using evidence and professional judgement, based on a range of factors as set out in GLVIA3, page 84, Box 5.1. Further information on establishing the value of landscape is provided in the LI's Technical Guidance Note 02/21¹¹ which includes Table 1 that contains many of the same factors and principles of Box 5.1 but makes some alterations and updates. **Table 11A-1** below is derived from the guidance and sets out the indicators of value. The importance attached to a landscape, often as a basis for designation or recognition, which expresses national or local consensus, because of its quality including cultural associations, scenic or aesthetic qualities. Landscape value may be indicated by the presence or absence of a landscape planning designation such as a National Landscape (previously AONB) or Special Landscape Area (SLA) (higher value) indicating a landscape of national or local value accordingly or an undesignated landscape (lower value).
- 1.4.9 The absence of a landscape planning designation should not assume an area of 'low' landscape value and undesignated areas of landscape are often of some local value. Landscapes of lower value tend to include those under intensive agriculture, forestry or urban fringe situations where the landscape elements and patterns have been eroded, landscapes with man-made development such as infrastructure or other renewable energy production features (noting that they may be decommissioned in the lifetime of the Proposed Development), and areas of derelict or vacant land, areas of mineral extraction and / or land fill.

¹¹ Landscape Institute (2021). Technical Guidance Note 02/21 - Assessing landscape value outside national designations. (Online). Available at: <https://www.landscapeinstitute.org/publication/tgn-02-21-assessing-landscape-value-outside-national-designations/> (Accessed November 2024).

Level of Value ranging from High to Negligible

as follows:

Designation	<p>Designated landscapes/elements with national policy level protection or defined for their natural beauty.</p> <p>Evidence that the landscape/element is valued or used substantially for recreational activity.</p>	<p>Landscapes without formal designation.</p> <p>Despoiled or degraded landscape with little or no evidence of being valued by the community.</p> <p>Elements that are uncharacteristic such as non-natives or self-seeded vegetation that may need to be cleared.</p>
Quality	<p>Higher quality landscapes/elements with consistent, intact and well-defined, distinctive attributes.</p>	<p>Lower quality and indistinct landscapes/elements or features that detract from its inherent attributes.</p>
Rarity	<p>Rare or unique landscape character types, features or elements.</p>	<p>Widespread or 'common' landscape character types, features or elements.</p>
Natural Heritage	<p>Landscape with clear evidence of ecological, geological, geomorphological or physiographic interest which contribute positively to the landscape.</p>	<p>Landscape with no evidence of ecological, geological, geomorphological or physiographic interest</p>
Cultural Heritage	<p>Landscape with clear evidence of archaeological, historical or cultural interest which contribute</p>	<p>Landscape with no evidence of archaeological, historical or cultural interest.</p>

Level of Value ranging from High to Negligible		
	positively to the landscape.	
Landscape Condition	Landscape which is in an excellent physical state both with regard to individual elements and overall landscape structure.	Landscape which is in a poor physical state both with regard to individual elements and overall landscape structure.
Associations	Landscape which is connected with notable people, events and the arts.	Connections with notable people, events or the arts are not present.
Distinctiveness	Landscape that has a strong sense of identity.	Landscape that doesn't have sense of identity.
Recreational	Landscape offering recreational opportunities where experience of landscape is important.	Landscape offers minimal recreational opportunities.
Perceptual (scenic)	Landscape that appeals to the senses, primarily the visual sense	Landscape that doesn't appeal to the senses.
Perceptual (Wildness and tranquillity)	Landscape with a strong perceptual value notably wildness, tranquillity and/or dark skies.	Landscape with little perceptual value. Lacks wildness, tranquillity and/or dark skies.
Functional	Landscape which performs a clearly identifiable and valuable function, particularly in the healthy functioning of the	Landscape with no clearly identifiable or valuable function, does little to contribute to the healthy functioning of the

Level of Value ranging from High to Negligible		
	landscape.	landscape.
Typical overall description on the level of value ranging from High to Negligible.		
Typical value descriptor	Landscape of notable character with unique or place-defining features and elements. Clearly coherent landscape character, with legible structure or pattern, a strong sense of character and quality. Minimal detracting elements and landscape features typically in good condition. Containing elements of ecological and/or cultural value. High presence of recreational opportunities that contributes positively to the experience and usability of the landscape. No or limited potential for substitution. May include international, national or regional designation/s.	Landscape of little scenic value or importance. Could include ordinary/commonplace or unremarkable areas of landscape. Disjointed landscape structure, character or pattern that is not rare or locally distinctive. Presence of dominant detracting elements and landscape features in poor or declining condition. Considerable potential for substitution. Unlikely to include designation/s.

Landscape Susceptibility to Change

- 1.4.11 The susceptibility of a landscape receptor to change is a reflection of its ability to accommodate the changes that will occur as a result of the Proposed Development without undue consequences for the maintenance of the baseline situation and / or the achievement of landscape planning policies and strategies. Some landscape receptors are better able to accommodate development than others due to certain characteristics that are indicative of capacity to accommodate change. These

characteristics may or may not also be special landscape qualities that underpin designated landscapes.

1.4.12 Judgements on landscape susceptibility include references to both the physical and aesthetic landscape characteristics, and the potential scope for mitigation. Landscape susceptibility varies according to different areas of landscape character and whilst accepting that solar farm development is likely to lead to high levels of landscape change in most circumstances, factors that commonly indicate lower landscape susceptibility to solar farm development include landscape characteristics of larger scale, uniformity of land cover, simple landform with limited inter-visibility where the site avoids skylines. The assessment of the susceptibility of the landscape receptor to change is classified as high, medium, low or negligible and the basis for this assessment is made clear using evidence and professional judgement. Generally speaking, lower landscape susceptibility together with lower landscape value tends to indicate lower landscape sensitivity to development. Conversely, higher landscape susceptibility and value tend to indicate higher landscape sensitivity to development.

1.4.13 Common indicators of landscape susceptibility to the type of development proposed (solar farm construction, operation and decommissioning) are as follows:

- **Strength and Robustness:** Collectively the overall characteristics and qualities of a particular landscape result in a strong and robust landscape that is capable of reasonably accommodating solar farm development without undue adverse effects on the special landscape qualities (in the case of a designated landscape) or the key characteristics for which an area of landscape character or a particular element it is valued.
- **Landscape Scale:** The scale is large enough to physically accommodate the development footprint without the requirement of invasive earthworks or drainage. Topographical features such as narrow valleys or more complex and small-scale landforms such as drumlins, incised river valleys / gorges, cliffs or rock outcrops are likely to be more susceptible to this type of development than broad, homogenous topography. In seascape terms this refers to the scale of the sea in relation to coastal form or

offshore. A smaller scale seascape that could become dominated by solar farm development would be more susceptible than a larger scale seascape where it could be accommodated.

- **Openness/enclosure:** in the landscape may increase susceptibility to change because it can result in wider visibility of the solar farm development, however open landscape may also be larger in scale and simple, which would decrease susceptibility. Conversely enclosed landscapes can offer more screening potential, limiting visibility to a smaller area, however they may also be smaller scale and more complex which would increase susceptibility. In seascape terms this refers to the degree and nature of enclosure of the sea by land and/or the framing of views. Seascapes where openness is a key characteristic would be more susceptible to solar farm development than where views are restricted or obscured by natural elements or features.
- **Land Cover Pattern:** Ancient and mature or long-established vegetation such as mature trees, woodland and protected hedgerows are likely to be more susceptible to the Proposed Development, particularly where these elements form part of a valued characteristic landscape pattern or feature, although could offer screening and/or enclosure of the solar farm development. Conversely large-scale grassland and monocultures such as forestry and intensive farming practices are likely to be less susceptible to solar farm development. In seascape terms this refers to the pattern of the coast and hinterland. Open, unspoiled views of the sea with no signs of development, or where important focal points are present, would be more susceptible to solar farm development than a coast or hinterland where elements or features offer screening and there are no important focal points.
- **Skyline:** Prominent and distinctive skylines and horizons with important landmark features that are identified in LANDMAP, are generally considered to be more susceptible to solar farm development in comparison to broad, simple skylines which lack landmark features or contain other infrastructure features. In terms of seascape an unspoiled

horizon out to sea would be more susceptible to solar farm development than a horizon towards the sea that already contains or is interrupted by existing features, particularly by man-made elements.

- **Association to context** Contemporary landscapes and seascapes where there are existing solar energy developments or other forms of development (industry, mineral extraction or electrical grid connections) that already have a characterising influence result in a lower susceptibility to development in comparison to areas characterised by smaller scale, historic development and landmarks (historic villages with dense settlement patterns and associated buildings such as church towers). It should be noted that existing solar energy development is time limited and subject to decommissioning.
- **Rationale:** Some site locations have an obvious visual rationale for the Proposed Development in terms of the available space, access, simplicity and relationship to other similar forms of development. Conversely a site may appear overly constrained and require greater engineering or additional construction activity to accommodate a solar farm development with lower design quality and few embedded environmental measures.
- **Perceptual qualities:** Notably landscapes and seascapes that are acknowledged to be particularly scenic, wild or tranquil are generally considered to be more susceptible to development in comparison to ordinary, cultivated or forested / developed landscapes/seascapes where perceptions of 'wildness' are less tangible. Landscapes/seascapes which are either remote or appear natural may vary in their susceptibility to development.
- **Landscape Context and Adjacent Landscapes:** The extent to which a solar farm development will influence landscape receptors across the Study Area . This relates to the associations that exist between the landscape receptor within which the solar farm development is located and the landscape receptor from which the solar farm development is being experienced. In some situations, this association will be strong, where the

landscapes are directly related. For example, adjacent areas of landscape character may share or ‘borrow’ a high number of common characteristics. Landscape elements may be linked to or associated with wider landscape patterns such as individual trees forming part of an avenue or patterns of woodland copses or fields/hedges, for example. In other situations, the association between adjacent landscapes will be weak. The context and visual connection to areas of adjacent landscape character or designations has a bearing on the susceptibility to development. In terms of seascapes this refers to the relationship between the hinterland, coastal edge, intertidal area and sea, and the contribution of the seascape to the character of the area. Where there is a strong visual relationship with the seascape or it is perceived from a sensitive coast/landscape there would be a higher susceptibility to where the visual perception is limited, or it is perceived from a less sensitive coast/landscape.

Table 11A-2: Landscape Susceptibility Indicators

Level of Value ranging from High to Negligible	
Susceptibility Criteria	High ← → Negligible
Strength and Robustness	<p>Fragile landscape vulnerable and lacking the ability to accommodate the type of proposed change.</p> <p>Robust landscape, able to accommodate the type of change proposed or loss of features without undue adverse effects.</p>
Landscape Scale	<p>A smaller scale landscape that may require further engineering to accommodate the type of change proposed.</p> <p>A landscape of a suitably large enough scale to accommodate the type of change proposed.</p>

Level of Value ranging from High to Negligible		
Openness/enclosure	An open landscape with limited screening and higher susceptibility to the type of change proposed.	An enclosed landscape with screening and lower susceptibility to the type of change proposed.
Lanver pattern	Higher value, characteristic lanver and elements that cannot be easily reinstated or replaced.	Lower value, non-characteristic lanver and elements capable of rapid reinstatement or replacement.
Skyline	Distinctive or undeveloped skylines or with landmark features.	Developed, nondistinctive skylines.
Association to context	Type of change has weak and/or indirect association. Other development may be of a smaller scale or historic.	Type of change has strong and/or direct association, other similar contemporary developments/character.
Rationale	A landscape with numerous environmental and technical constraints and fewer environmental measures.	A strong landscape rationale and opportunity with high degree of design quality and/or environmental measures.
Perceptual qualities	Perceptual qualities associated with particular scenic qualities, wildness or tranquillity.	Contemporary, cultivated/settled or developed landscape are likely to have a lower

Level of Value ranging from High to Negligible		
		susceptibility.
Landscape Context	Adjacent landscape character context by shared character and views.	Host landscape character is separate from surrounding/adjacent landscape character.
Typical overall description on the level of susceptibility ranging from High to Negligible		
Typical susceptibility descriptor	Landscape receptor would be unlikely to accommodate the type of change proposed without unacceptable negative consequences for the maintenance of the baseline landscape character and or the achievement of the landscape planning policies and strategies. Landscape receptor has little or no relationship to the type of development proposed and/or would be difficult to replace or substitute if lost e.g. veteran trees, historic or unique features. Characteristics of the	Landscape receptor would be likely to accommodate the type of change proposed without unacceptable negative consequences for the maintenance of the baseline landscape character and/or the achievement of the landscape planning policies and strategies. Landscape receptor has a close relationship to the type of change proposed and could be easily replaced or substituted if lost. Landscape receptor is of low sensitivity and characteristics of the Landscape would not be

Level of Value ranging from High to Negligible

landscape which contribute to the landscape character are highly sensitive and would be fundamentally altered by the type of change proposed.	significantly altered by the type of change proposed. The general landscape character is resilient to the type of change proposed.
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Landscape Sensitivity Rating

- 1.4.14 Susceptibility and value can be combined in different ways although 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. As noted in GLVIA3 there can be complex relationships between the value attributed to a landscape and its susceptibility to change, which can be particularly important when considering change in designated landscapes or those that are being considered for designated status.
- 1.4.15 However, whilst a valued landscape may serve to increase the overall sensitivity of the landscape receptor, a low value will not necessarily reduce overall sensitivity. Whilst it would be anticipated that landscape receptors considered highly susceptible to the proposed change will be considered to be of high sensitivity, this will not be the case if there were reasons associated with the value that lead to a reduction in sensitivity. For example, where a designated area or area covered by policy may have a deterioration in recent condition and management regime.
- 1.4.16 The diagram presented as Plate 11A-1 illustrates how value and susceptibility can be combined. When determining overall landscape sensitivity, it should be noted that the levels are indicative and fall on a sliding scale from high to negligible and professional judgement is always used to determine the overall level of sensitivity.
- 1.4.17 Any landscape receptors assigned a negligible level of sensitivity will not be further considered as part of the assessment on the basis that significant effects are highly unlikely as demonstrated by **Table 11A-10** and to ensure a proportionate

assessment.

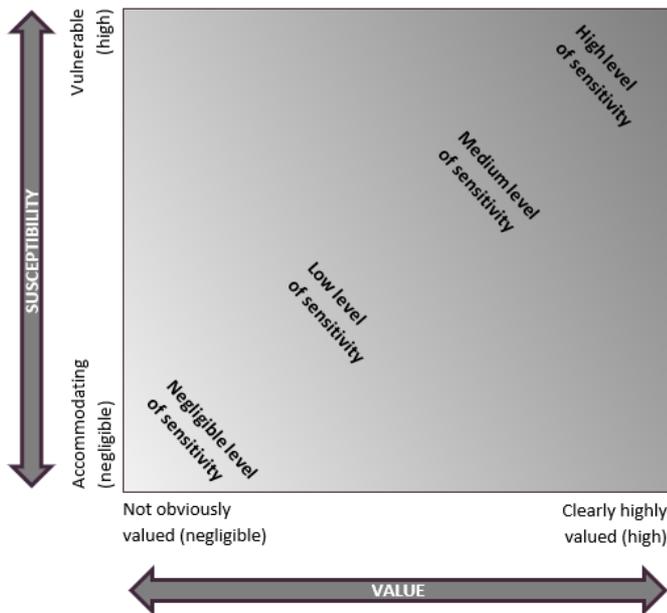


Plate 11A-1 Level of Landscape Sensitivity Diagram

Landscape Magnitude of Change

1.4.18 The magnitude of change affecting landscape receptors is an expression of the scale of change that would result from the Proposed Development. Like with sensitivity, combining the scale, geographical extent, and duration/reversibility of the change together requires careful consideration and professional judgement. As such, the LVIA will separately consider each aspect to form the judgement of overall magnitude. Landscape specific descriptions of these aspects follow while the process for how they are combined is set out for both landscape and visual receptors later.

Size or Scale of Change

1.4.19 This criterion relates to the size or scale of change to the landscape that would arise as a result of the Proposed Development, based on the following factors:

- Landscape Elements:** The degree to which the pattern of elements that makes up the landscape character would be altered by the Proposed Development, through the loss, alteration or addition of elements in the landscape. The magnitude of change would generally be higher if the

features that make up the landscape character are extensively removed or altered, and / or if many new components are added to the landscape.

- **Landscape Characteristics:** The extent to which the effect of the Proposed Development change (physically or perceptually) the key characteristics of the landscape which may be important to its distinctive character. This may include, for example, the scale of the landform, its relative simplicity, complexity or irregularity, the nature of the landscape context, the grain or orientation of the landscape, the degree to which the receptor is influenced by external features and the juxtaposition of the Proposed Development in relation to these key characteristics.
- **Landscape Character / Designation:** The degree to which landscape character receptors (as represented by LANDMAP Aspect Areas) would be changed by the addition of the Proposed Development. If the Proposed Development is located in a landscape receptor that is already affected by other similar development, this may reduce the magnitude of change if there is a high level of integration and the developments form a unified and cohesive feature in the landscape. In the case of designated landscapes, the degree of change is considered in light of the effects on the special landscape qualities which underpin the designation and the effect on the integrity of the designation.

All landscapes change over time and much of that change is managed or planned. Often landscapes will have management objectives for 'protection' or 'accommodation' of development. The scale of change may be localised, or occurring over parts of an area, or more widespread affecting whole landscape character areas and their overall integrity. Developmental change may be time limited or permanent.

- **Distance:** The size and scale of change is also strongly influenced by the proximity of the Proposed Development to the receptor and the extent to which the development can be seen as a characterising influence on the landscape. Consequently, the scale or magnitude of change is likely to be lower in respect of landscape receptors that are distant from the Proposed Development and / or screened by intervening landform, vegetation and

built form to the extent that the scale of their influence on landscape receptors is small or limited. Conversely, landscapes closest to the Proposed Development are likely to be most affected. Host landscapes (where the Proposed Development is located within a 'host' landscape character unit) would be directly affected whilst adjacent areas of landscape character would be indirectly affected.

Geographical Extent

1.4.20 Landscape effects are described in terms of the geographical extent or physical area that would be affected (described as a linear or area measurement). This should not be confused with the scale of the development or its physical footprint. Landscape effects occurring over a larger geographical extent and over a higher proportion of a landscape designation or LANDMAP aspect area are more likely to be regarded as significant. The manner in which the geographical extent of the landscape effect is described for different landscape receptors is explained as follows:

- **Landscape Elements:** The geographical extent of landscape elements may be objectively measured in terms of numbers, area or linear measurement. For example, the number of trees, area of woodland / or length of hedgerow affected may be recorded.
- **Landscape Character / Characteristics:** The extent of the effects on landscape character will vary depending on the specific nature of the Proposed Development. This is not simply an expression of visibility or the extent of the ZTV. It is a specific assessment of the extent of landscape character that would be changed by the Proposed Development in terms of its character, key characteristics and elements.
- **Landscape Designations:** In the case of a designated landscape, this refers to the extent the special landscape qualities of the designation are affected and whether this can be defined in terms of area or linear measurements, or subjectively (with the support of panel and / or peer review) and whether the integrity of the designation is affected.

Duration and Reversibility

1.4.21 The duration and reversibility of landscape effects is based on the period over which the Proposed Development is likely to exist (during construction and operation) and the extent to which it would be removed (during decommissioning) and the effects reversed at the end of that period. Long-term, medium-term, short-term and brief term landscape effects are defined as follows:

- Permanent Development: No decommissioning, removal or reinstatement is planned.
- Temporary Development: This includes time limited development, such as a longer period of operation where decommissioning for example forms part of the Proposed Development or temporary phases of the development such as construction or decommissioning works:
 - Long-term – more than ten years;
 - Medium-term – six to ten years;
 - Short-term – two to five years; and
 - Brief term - < one year.

1.4.22 Reversibility is a separate, but linked consideration concerning the prospects and practicality of a particular effect being reversed. Some forms of development, such as housing can be considered as permanent, whereas other forms of development such as solar farm can be considered as reversible because they have a limited operational life and after their removal the land would be restored. Mineral workings for example may be partially reversible with the landscape restored, although not completed to the same state as the original. In the case of the Proposed Development, the application would have a limited operation period, beyond which the project would be decommissioned, or a new application submitted, and many of the effects would be reversed.

1.5 Assessing Visual Effects

1.5.1 Visual Effects are concerned wholly with the effect of the development on views, and the general visual amenity and are defined by the Landscape Institute in GLVIA 3, paragraphs 6.1 as follows:

“An assessment of visual effects deals with the effects of change and development on views available to people and their visual amenity. The concern ... is with assessing how the surroundings of individuals or groups of people may be specifically affected by changes in the context and character of views.”

1.5.2 Visual effects are identified for different receptors (people) who would experience the view at their place of residence, within their community, during recreational activities, at work, or when travelling through the area. The visual effects may include the following:

- Visual effect: a change to an existing static view, sequential views, or wider visual amenity as a result of development or the loss of particular landscape elements or features already present in the view; and
- Cumulative visual effects: the cumulative or incremental visibility of similar types of development may combine to have a cumulative visual effect.

1.5.3 The level of visual effect is determined through consideration of the sensitivity of each visual receptor (or range of sensitivities for receptor groups) and the magnitude of change that would be brought about by the construction, operation and decommissioning of the Proposed Development. Visual assessment unavoidably involves a combination of both quantitative and subjective assessment and wherever possible a consensus of professional opinion is sought through consultation and internal peer review.

Zone of Theoretical Visibility (ZTV)

1.5.4 Plans mapping the Zone of Theoretical Visibility (ZTV) are used to analyse the extent of theoretical visibility of development or part of a development, across the LVIA Study Area and to assist with viewpoint selection. The ZTV was generated using a Digital Surface Model LiDAR sourced from DEFRA, so takes account of intervening

surface features such as buildings and vegetation, using a receptor (viewer) eye height of 1.6m to identify photographic viewpoint locations to represent the character of the area and the likely visibility of the Proposed Development. The ZTV is shown in **Figure 11.6 and 7**.

- 1.5.5 The ZTVs provide a starting point in the assessment process and accordingly tend towards giving a 'worst case' or greatest calculation of the theoretical visibility.

Viewpoint Analysis

- 1.5.6 Viewpoint analysis is used to assist the assessment and is conducted from selected viewpoints identified and agreed upon with consultees within the LVIA Study Area. The purpose of this is to assess both the level of visual effect for particular receptors and to help guide the design process and focus the LVIA. A range of viewpoints are examined in detail and analysed to determine whether visual effects would occur. By considering the viewpoints in order of distance it is possible to define a threshold or outer geographical limit, beyond which it would be reasonable to assume that further significant visual effects would be unlikely.
- 1.5.7 The assessment involves visiting the viewpoint location and viewing photomontages prepared for each viewpoint location. The fieldwork is conducted in periods of fine weather with good visibility and considers seasonal changes such as reduced leaf cover or hedgerow maintenance.
- 1.5.8 Viewpoint analysis prepared for each viewpoint is presented as supporting evidence in an appendix to the LVIA (**Appendix 11J**). A summary table of the findings is also provided in order of distance from the Site. This summary table assists in defining the direction, elevation, geographical spread and nature of the potential visual effects and identifies areas where visual effects are likely to occur. This approach seeks to provide clarity and confidence to consultees and decision makers by allowing the detailed judgements on the magnitude of visual change to be more readily scrutinised and understood.

Evaluating Visual Sensitivity to Change

- 1.5.9 In accordance with paragraphs 6.31-6.37 of GLVIA 3, the sensitivity of visual

receptors is determined by a combination of the value of the view and the susceptibility of the visual receptors to the change likely to result from the Proposed Development on the view and visual amenity.

Value of the view

1.5.10 The value of a view or series of views reflects the recognition and importance attached either formally through identification on mapping or being subject to planning designations, or informally through the value which society attaches to the view(s). The value of a view is classified as high, medium or low and the basis for this assessment is made clear using evidence and professional judgement, based on the following criteria:

- **Formal recognition:** The value of views can be formally recognised through their identification on OS or tourist maps as formal viewpoints, sign-posted and with facilities provided to add to the enjoyment of the viewpoint such as parking, seating and interpretation boards. Specific views may be afforded protection in local planning policy and recognised as valued views. Specific views can also be cited as being of importance in relation to landscape or heritage planning designations, for example the value of a view would be increased if it presents an important vista from a designed landscape or lies within or overlooks a designated area, which implies a greater value to the visible landscape.
- **Informal recognition:** Views that are well-known at a local level and / or have particular scenic qualities can have an increased value, even if there is no formal recognition or designation. Views or viewpoints are sometimes informally recognised through references in art or literature and this can also add to their value. A viewpoint that is visited and appreciated by a large number of people would generally have greater importance than one gained by very few people.

Table 11A-4 Visual Value Indicators

Susceptibility to Change

1.5.11 Susceptibility relates to the nature of the viewer experiencing the view and how susceptible they are to the potential effects of the Proposed Development. A judgement to determine the level of susceptibility therefore relates to the nature of the viewer and their experience from that particular viewpoint or series of viewpoints, classified as high, medium or low and based on the following criteria:

- **Nature of the viewer:** The nature of the viewer is defined by the occupation or activity of the viewer at the viewpoint or series of viewpoints. The most common groups of viewers considered in the visual assessment include residents, motorists, and people taking part in recreational activity or working. Viewers, whose attention is focused on the landscape, or with static long-term views, are likely to have a higher sensitivity. Viewers travelling in cars or on trains would tend to have a lower sensitivity as their view is transient and moving. The least sensitive viewers are usually people at their place of work as they are generally less sensitive to changes in views.
- **Experience of the viewer:** The experience of the visual receptor relates to the extent to which the viewer's attention or interest may be focused on the view and the visual amenity they experience at a particular location. The susceptibility of the viewer to change arising from the Proposed Development may be influenced by the viewer's attention or interest in the view, which may be focused in a particular direction, from a static or transitory position and over a long or short duration. For example, if the principal outlook from a settlement is aligned directly towards the Proposed Development, the experience of the visual receptor would be altered more notably than if the experience relates to a glimpsed view seen at an oblique angle from a car travelling at high speed. The visual amenity experienced by the viewer varies depending on the presence and relationship of visible elements, features or patterns experienced in the view and the degree to which the landscape in the view may accommodate the Proposed Development.

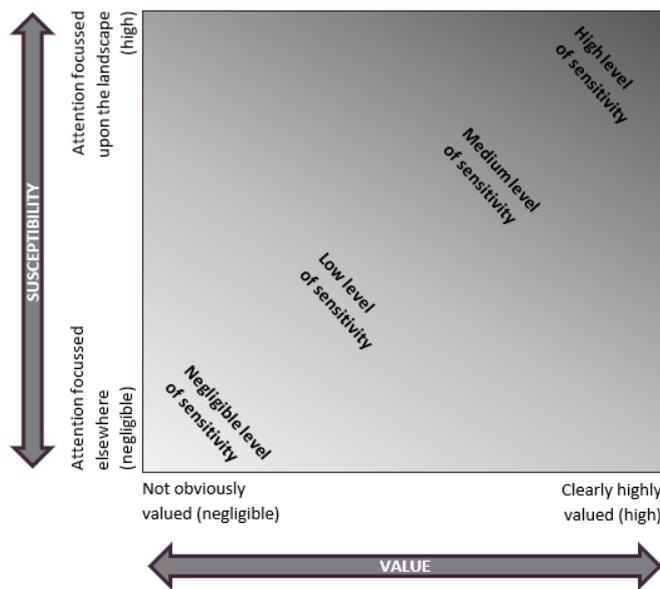
Table 11A-5 Visual Susceptibility Indicators

Level of Value ranging from High to Negligible				
Susceptibility Criteria	High	Medium	Low	Negligible
Activity of the viewer	Residents, walkers, cyclists, or tourists, whose main attention and interest is on their surroundings.		Viewers whose attention is not focused on their surroundings (e.g. people at work, users of indoor facilities or team sports).	
Nature of the View	Residents that gain static, long-term views in their principal outlook.		Mobile viewers whose views are transient and dynamic (e.g. travelling in cars or on trains with glimpsed views).	
Direction/ Field of View	A view that is focused in a specific directional vista, with notable features of interest in a particular part of the view.		Open views with no specific point of interest.	
Visual amenity	Viewers are focused on the experience of a high level of visual amenity at the location due to its overall pleasantness as an attractive visual setting or backdrop to activities.		The visual amenity experienced at the location by viewers is considered less pleasant or attractive than might otherwise be the case.	

Visual Sensitivity Rating

- 1.5.12 As with landscape, susceptibility and value can be combined in different ways to form a judgement about the visual sensitivity of a given receptor. 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.
- 1.5.13 However, whilst a valued view may serve to increase the overall sensitivity of the visual receptor, a low value will not necessarily reduce overall sensitivity. Whilst it will be anticipated that visual receptors considered highly susceptible to the proposed change will be considered to be of high sensitivity, this will not be the case if there were reasons associated with the value of the view that lead to a reduction in sensitivity. For example, a resident at home will generally have a high sensitivity to the proposed change, but if the view they currently experience is of a low value degraded and industrial landscape it can be expected that their susceptibility to a proposed change of a similar industrial nature will be reduced.
- 1.5.14 Similarly, receptors considered of low or medium susceptibility are usually in the same category of sensitivity, unless there are reasons associated with the value of the view that lead to an increase in sensitivity, which is shown in **Table 11A-4**. For example, where a road user on a defined tourist route will have a higher susceptibility to the proposed change than if travelling on a busy main road.
- 1.5.15 The diagram in **Plate 11A-2** illustrates typical characteristics of the different levels of sensitivity taking into account the value and susceptibility as described above. When determining overall visual sensitivity, it should be noted that the levels are indicative and fall on a sliding scale from high to negligible and professional judgement is always used to determine the overall level of sensitivity.
- 1.5.16 Any visual receptors assigned a negligible level of sensitivity will not be further considered as part of the assessment on the basis that significant effects are highly unlikely as demonstrated by **Table 11A-10**.

Plate 11A.2 Level of Visual Sensitivity Diagram



Visual Magnitude of Change

1.5.17 The visual magnitude of change is an expression of the scale of change that would result from the visibility of the Proposed Development. Like with sensitivity, combining the scale, geographical extent, and duration/reversibility of the change together requires careful consideration and professional judgement. As such, the LVIA will separately consider each aspect to form the judgement of overall magnitude. Descriptions of these aspects specific to visual amenity follow while the process for how they are combined is set out for both landscape and visual receptors later.

Size or Scale of Change

1.5.18 An assessment is made of the size or scale of change in the view that is likely to be experienced as a result of the Proposed Development, based on the following criteria:

- **Scale:** The scale of the change in the view, with respect to the loss or addition of features in the view and changes in its composition. The scale of the Proposed Development may appear larger or smaller relative to the scale of the receiving landscape.

- **Size:** The amount and size of the Proposed Development that would be seen. Visibility may range from small or partial to whole visibility of the Proposed Development. Generally, the larger and greater number of elements (Solar Panels, access tracks and associated infrastructure) of the Proposed Development that appear in the view, the higher the magnitude of change.

This is also related to the degree to which development may be wholly or partly screened by landform, vegetation (seasonal) and / or built form. Conversely open views are likely to reveal more of a development, particularly where this is a key characteristic of the landscape.

- **Screening:** The Proposed Development may be wholly or partly screened by landform, vegetation (seasonal) and or built form. Conversely open views, particularly from landscapes where LANDMAP identifies their availability as a characteristic, are likely to reveal more of a development.
- **Distance:** The distance between the visual receptor / viewpoint and the Proposed Development. Generally, the greater the distance, the lower the magnitude of change, as the Proposed Development would constitute a smaller-scale component of the view due to the effects of perspective.
- **Field of View** The vertical / horizontal field of view (FoV) and the proportion of view that is affected by the Proposed Development. Generally, the more of the proportion of a view that is affected, the higher the magnitude of change would be. If the Proposed Development extends across the whole of the view, the magnitude of change would generally be higher as the full view would be affected. Conversely, if the Proposed Development extends over a narrow part of an open view, the magnitude of change is likely to be reduced as the Proposed Development would not affect the whole view or outlook. This can in part be described objectively by reference to the horizontal / vertical FoV affected, relative to the extent and proportion of the available view.
- **Contrast:** The character and context within which the Proposed Development would be seen and the degree of contrast or integration of

any new features with existing landscape elements, in terms of scale, form, mass, line, height, colour, luminance and motion. Developments which contrast or appear incongruous in terms of colour, scale and form are likely to be more visible and have a higher magnitude of change.

- **Consistency of image:** The consistency of image of the Proposed Development in relation to other developments. The magnitude of change for the Proposed Development is likely to be lower if it appears broadly similar to other developments in the landscape in terms of its scale, form and general appearance. New development is more likely to appear as logical components of the landscape with a strong rationale for their location.
- **Skyline / Background:** Whether the Proposed Development would be viewed against the skyline or a background landscape may affect the level of contrast and magnitude. For example, skyline developments may appear more noticeable, particularly where they affect open and undeveloped horizons rather than being contained by a landscape in the background. Conversely, development may also appear more noticeable when viewed against a darker background landscape, such as forestry. In these cases, the magnitude of change would tend to be higher. If the Proposed Development adds to an already developed skyline the magnitude of change would tend to be lower.
- **Number:** Generally, the greater the number of separate development components seen simultaneously or sequentially, the higher the magnitude of change and this may lead to whole project effects (for example the visual effect of the solar farm and the substation). Further cumulative effects would occur in the case of separate, existing developments and their spatial relationship to each other would affect the magnitude of change. For example, development that appears as an extension to an existing development would tend to result in a lower magnitude of change than a separate, new development.

- **Nature of Visibility:** The nature of visibility is a further factor for consideration. The Proposed Development may be subject to various phases of development change and the manner in which the development may be viewed could be intermittent or continuous and / or seasonally, due to periodic management or leaf fall.

Geographical Extent

1.5.19 The geographic extent over which the visual effects would be experienced is also assessed. This is distinct from the size or scale of effect and is described in terms of the physical area or location over which it would be experienced (described as a linear or area measurement). The extent of the effects would vary according to the specific nature of the Proposed Development and is principally assessed through ZTV, field survey and viewpoint analysis of the extent of visibility likely to be experienced by visual receptors. The geographical extent of visual effects is described as per the following examples:

- The geographical extent can be described as an area measurement or proportion of the total receptor affected. For example, effects on people within a particular area such as a golf course or area of common land can be illustrated via a 'representative viewpoint' that represents a similar visual effect, likely to be experienced by larger numbers of people within that area. The geographical extent of that visual effect can be expressed as approximately '5 hectares' or '10%' of the common land or a golf course area.
- The geographical extent can be described as a linear measurement (metres or kilometres) according to the length of route affected. For example, effects on people travelling on a route through the landscape such as a road or footpath can be illustrated via a 'representative viewpoint' that represents a similar visual effect, likely to be experienced by larger numbers of people along that route. The geographical extent of that visual effect can be expressed as approximately '2km' or '10%' of the total length of the route.

- The geographical extent of a visual effect experienced from a specific viewpoint may be limited to that location alone. (An example of a 'specific viewpoint' is a public viewpoint recommended in tourist literature such as a well visited hill summit. An example of an 'illustrative viewpoint' is a particular location within a built up or well vegetated area where an uncharacteristically open view exists).

Duration and Reversibility

- 1.5.20 The duration or time period over which a visual effect is likely to occur is judged on a scale of 'brief', 'short', 'medium' or 'long' term and is assessed for the Proposed Development as per the method described in **paragraph 1.4.22** and set out in **Table 11A-9 below**.
- 1.5.21 Reversibility is a separate, but linked consideration, also assessed for the Proposed Development as per the method described in **paragraph 1.4.23**.

1.6 Magnitude of Change Rating (Two-Step Process)

- 1.6.1 The magnitude of landscape and visual change depends upon a combination of factors including size/scale of change, geographical extent and duration. Detailed descriptions of these factors specific to landscape and visual receptors are given above while the tables below apply a rating to the different levels of those factors.

Size or Scale of Change

Table 11A-7 Level of Size/Scale of Change

Criteria rating	Typical descriptors
High	<p><u>Visual</u></p> <ul style="list-style-type: none"> • Occupies a wide proportion of the view or would obstruct a significant portion of the view; and • The Proposed Development would become the dominant feature. <p><u>Landscape</u></p> <p>Considerable change to the majority / many existing landscape elements and/or landscape character; fundamental changes to the surroundings and baseline to a large extent; very noticeable.</p>
Medium	<p><u>Visual</u></p> <ul style="list-style-type: none"> • Occupies much of the view but would not fundamentally change its characteristics; and • Changes would be immediately visible but not a key feature of the view. <p><u>Landscape</u></p> <p>Some change to existing landscape elements and /or landscape character; discernible changes to the surroundings of a receptor, such that its baseline is partly altered; readily noticeable.</p>
Low	<p><u>Visual</u></p> <ul style="list-style-type: none"> • Occupies a small portion of the view and would only slightly alter the view's composition. <p><u>Landscape</u></p> <ul style="list-style-type: none"> • Small change to existing landscape elements and/or landscape character; slight, but detectable impacts that do not alter the baseline of the receptor materially; not readily noticeable.

Criteria rating	Typical descriptors
Negligible	<p><u>Visual</u></p> <ul style="list-style-type: none"> • Occupies little or no portion of the view and would not result in a change to the view's composition. <p><u>Landscape</u></p> <p>Little or limited /no change in existing landscape elements and/or landscape character, barely distinguishable change from baseline conditions; not noticeable.</p>

Geographical Extent

Table 11A-8 Level of Geographical Extent

Criteria rating	Typical descriptors
High	The assessment location is representative of similar effects over an extensive geographic area. E.g., the change would influence multiple landscape types or character areas. The change would affect a large number of receptors and would have high influence on the perception of the landscape or view.
Medium	The assessment location is representative of similar effects over a moderate geographic area. E.g., the change would influence the landscape types or character areas within which the proposal lies. The change would affect a moderate number of receptors and would have moderate influence on the perception of the landscape or view.
Low	The assessment location represents a small geographic area. E.g., the change would influence the immediate setting of the site. The development would be perceived locally, with a minor effect on wider landscape character or views.
Negligible	The assessment location clearly represents a small geographic area. E.g., the change would influence the site level within the development site itself. The development would be perceived only locally, with a limited effect on wider landscape character or views.

Duration and Reversibility

Table 11A-9 Duration of Change

Criteria rating	Typical descriptors
High	Long term / 10 years +
Medium	Medium term / 6-10 years
Low	Short term / 2-5 years
Negligible	Brief term / <1 year

Magnitude of Change

- 1.6.2 The following **Plate 11A-3** and **Plate 11A-4** illustrate how these aspects are combined through a two-step process. First by considering size and scale together with the geographical extent in step one. The result of this provides a preliminary magnitude of change result.

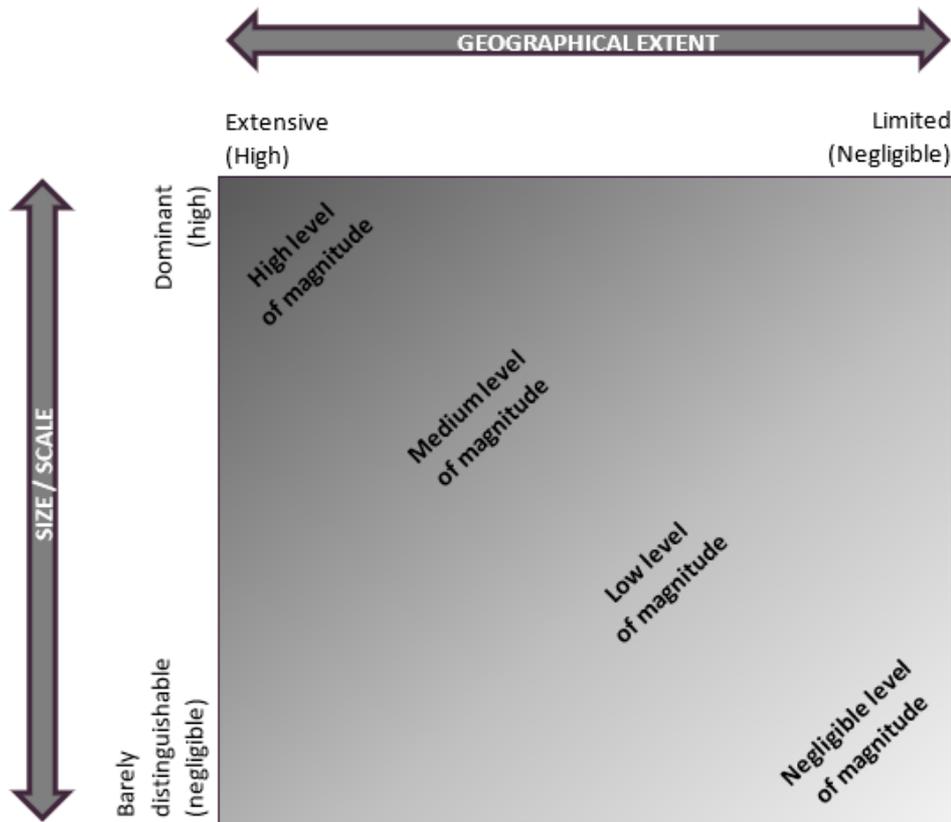


Plate 11A-3 Magnitude of Change Diagram: Step 1

1.6.3 As illustrated below in the diagram presented as **Plate 11A-4**, for step two, the preliminary result from step 1 is then considered alongside the duration and reversibility which can either increase or decrease the rating accordingly. For example, a high magnitude of change could be reduced if this is only going to be experienced over a short period of time. This is typical of construction activities where they are both short term and of a temporary nature.

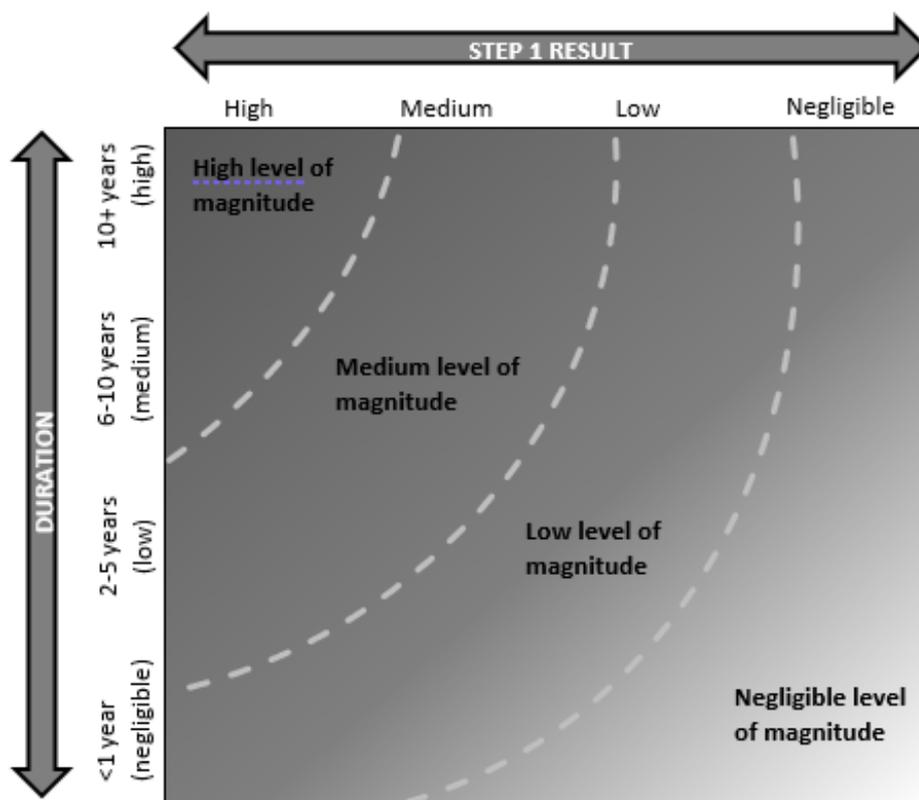


Plate 11A-4 Magnitude of Change Diagram: Step 2

1.7 Assessing Cumulative Landscape and Visual Effects

1.7.1 Cumulative assessment considers the magnitude of change posed by multiple developments of a similar nature that have the potential to be present or visible together within the landscape.

1.7.2 The cumulative assessment follows a similar approach to the four stages set out in Planning Inspectorate (PINS) Advice Note Seventeen: Cumulative Effects Assessment. In the absence of a single, agreed industry standard, the PINS Advice Note is considered the most appropriate approach to follow for a Proposed Development of this size. These comprise:

- **Stage 1:** Establish the Project's Zone of Influence (Zol) and identify long list of 'cumulative developments'. For the assessment of landscape and visual effects, the Zone of Theoretical Visibility has formed the Zol ;

- **Stage 2:** Develop a shortlist of ‘cumulative developments’ for the Cumulative Assessment by applying inclusion/exclusion criteria to the Stage 1 list;
- **Stage 3:** Information gathering; and,
- **Stage 4:** Cumulative Assessment – the assessment is undertaken assuming that the short list of Committed Developments will implement appropriate mitigation as required by legislation, policy or through best practice measures.

1.7.3 The shortlist of Cumulative Developments to be considered for the Proposed Development is listed in **Table 11-21**. However, for the LVIA cumulative assessment this was reduced further to only include Cumulative Developments within 1km of the PEIR Assessment Boundary. As set out in **paragraphs 11.2.7-10** of this methodology and demonstrated through the assessments in **Chapter 11** the potential for significant effects to arise as a result of the Proposed Development are limited to within 1km of the PEIR Assessment Boundary. Therefore, only Cumulative Developments within this area that would be perceived within shared views from sensitive receptors, or which would potentially result in a material change to the landscape context, would have the potential to result in significant cumulative effects derived from the Proposed Development.

1.7.4 Cumulative effects have been considered for the reduced short list of Cumulative Developments that could result in significant inter-project effects due their presence within the landscape and visual Zol. The Cumulative Developments which have informed the LVIA cumulative assessment are listed in **Table 11-20** in **Chapter 11** along with a rational for why it has been scoped in or out of the cumulative assessment. Considerations for scoping out Cumulative Developments from the LVIA cumulative assessment are due to one or more of the following:

- The relatively minor nature of the Cumulative Developments, attributable to the small scale, limited geographical extent or limited duration during construction of the Cumulative Developments, or combination of these factors;

- The Cumulative Development being of a different nature to the Proposed Development so as to have little inter-relationship and not cause significant landscape or visual effects;
- The appreciable amount, scale and/or density of built form and vegetation between the Committed Developments and the Proposed Development; and
- Not being covered by the ZTV generated for the Proposed Development so there would be no inter-visibility between them.

1.8 Evaluation of Landscape and Visual Effects

- 1.8.1 Combining the stated measures of magnitude and sensitivity indicates the relative importance of different effects. This, combined with an oversight of professional judgement, allows us to evaluate effects and to determine significance their significance.
- 1.8.2 **Table 11A-10** provides general guidance on the inter-relationship between magnitude of change and sensitivity of receptor. However, this matrix is used as a framework and guide for consistency, not as a prescriptive formula: the level of effect and thus significance will vary depending on the circumstances, the type and scale of development proposed, the baseline context and other factors as set out in the previous sections.

Table 11A-10 Significance Matrix

		Magnitude			
		High	Medium	Low	Negligible
Sensitivity	High	Major	Major or Moderate	Moderate	Minor or Negligible
	Medium	Major or Moderate	Moderate	Moderate or Minor	Negligible
	Low	Moderate	Moderate or Minor	Minor	Negligible
	Negligible	Negligible	Negligible	Negligible	Negligible

Type or Nature of Effect

- 1.8.3 The type or nature of effect is also described in terms of whether it is direct or indirect; its duration (temporary / permanent or reversible); whether the effects are cumulative; and whether the effect is positive, neutral or negative.
- 1.8.4 Transboundary effects are not relevant to this assessment as the LVIA Study Area for the Proposed Development would not overlap with the territory of another country.

Direct and indirect effects

- 1.8.5 GLVIA, paragraph 5.2 notes that landscape may be directly and indirectly affected by development and defines indirect effects as *“Effects that result indirectly from the proposed project as a consequence of the direct effects, often occurring away from the site, or as a result of a sequence of interrelationships or a complex pathway. They may be separated by distance or in time from the source of the effects”*.
- 1.8.6 Direct landscape effects relate to the host landscape and concern both physical and perceptual effects on the receptor. Indirect landscape effects may also affect the

host landscape as well as other landscapes, often separated by distance from the Proposed Development, as a consequence of views that affect the perceptual aspects of their character and key characteristics.

1.8.7 Visual effects are generally all considered as direct effects. An indirect visual effect may however be used to define a visual effect on a view that is not in the direction of the main view of the receptor as described by the following examples:

- Road users generally face the road directly ahead in the direction of travel and visual effects affecting those views may be described as direct effects. Where the visual effect is experienced in views oblique to the direction of travel they may be described as indirect; and
- Designed landscapes and vistas / viewpoints may be orientated in a particular direction and visual effects affecting those views may be described as direct effects. Where the visual effect is experienced in views oblique to the direction of the designed or main / primary view they may be described as indirect.

1.8.8 Secondary effects (or effects subsequent to an initial effect) are covered in this assessment by indirect effects.

Positive (beneficial) and negative (adverse) effects

1.8.9 Solar farms give rise to a wide range of opinions, from strongly adverse to strongly beneficial. However, LVIA is not an assessment of public opinion, although a precautionary approach has been taken, which assumes that the nature of the effects would be adverse or neutral unless otherwise stated.

1.8.10 Guidance provided by the in GLVIA 3 on the nature of effect (i.e. beneficial or adverse) states that 'in the LVIA, thought must be given to whether the likely significant landscape and visual effects are judged to be positive (beneficial) or negative (adverse) in their consequences for landscape or for views and visual amenity', but it does not provide guidance as to how that may be established in practice. The nature of effect is therefore one that requires interpretation and, where applied, this involves reasoned professional opinion.

1.8.11 In relation to many forms of development, the LVIA will identify ‘beneficial’ and ‘adverse’ effects by assessing these under the term ‘Nature of Effect’. The landscape and visual effects of large-scale infrastructure are difficult to categorise in either of these brackets as, unlike other disciplines, there are no definitive criteria by which the effects can be measured as being categorically ‘beneficial’ or ‘adverse’. In some disciplines, such as noise or ecology, it is possible to quantify the effect in numeric terms, by objectively identifying or quantifying the proportion of a receptor that is affected and assessing the nature of that effect in justifiable terms. However, this is not the case in relation to landscape and visual effects where the approach combines quantitative and qualitative assessment.

1.8.12 As a starting point, unless stated otherwise, the effects considered in the assessment will be considered to be adverse. Beneficial or neutral effects may, however, arise in certain situations and are stated in the assessment where relevant, based on the following definitions:

- Beneficial effects contribute to the landscape and visual resource through the enhancement of desirable characteristics or the introduction of new, beneficial attributes. The Proposed Development contributes to the landscape by virtue of good design or the introduction of new landscape planting. The removal of undesirable existing elements or characteristics can also be beneficial, as can their replacement with more appropriate components.
- Neutral effects occur where the Proposed Development fits with the existing landscape character or visual amenity. The Proposed Development neither contributes to or detracts from the landscape and visual resource and can be accommodated with neither beneficial or adverse effects, or where the effects are so limited that the change is hardly noticeable (very low magnitude). A change to the landscape and visual resource is not considered to be adverse simply because it constitutes an alteration to the existing situation.
- Adverse effects are those that detract from the landscape character or quality of visual attributes experienced, through the introduction of

elements that contrast, in a detrimental way, with the existing characteristics of the landscape and visual resource, or through the removal of elements that are key in its characterisation.

Probability of Effect

- 1.8.13 The probability of cumulative effects is variable. Those effects related to existing solar energy development and those under construction are considered as certain; effects related to development with planning consent are considered as likely. Solar energy development sites for which there is a submitted planning application are considered as uncertain with an even greater level of uncertainty attached to pre-planning application sites.

1.9 Determining the Significance of Effects

- 1.9.1 The landscape and visual assessment unavoidably, involves a combination of quantitative and qualitative assessment and wherever possible cross references will be made to objective evidence and baseline figures to support the assessment conclusions. Often a consensus of professional opinion has been sought through consultation, internal peer review, and the adoption of a systematic, impartial, and professional approach. Importantly, each effect results from its own unique set of circumstances and have been assessed on a case-by-case basis. The matrix should therefore be considered as a guide and any deviation from this guide will be clearly explained in the assessment.
- 1.9.2 As set out in **Chapter 5 – Environmental Impact Assessment Methodology**, using professional judgement and with reference to the relevant EIA regulations, it is important to determine whether the effects, assessed as a result of the Proposed Development, are likely to be significant. Significant landscape and visual effects will be highlighted in **bold** in the text and in most cases, relate to all those effects that result in a **Major** effect as indicated in **Table 11A-10**. Some ‘**Moderate**’ levels of effect also have the potential, subject to the assessors opinion, to be considered as significant and these exceptions are also highlighted in **bold** and explained as part of the assessment, where they occur. In accordance with the overall significance matrix in **Table 11A-10** those less than moderate are determined as ‘not significant.’

- 1.9.3 For the purposes of proportionality and to ensure the effects that are significant are the key focus of this assessment, any landscape or visual receptors assigned a negligible level of sensitivity will not be further considered as part of the assessment on the basis that significant effects are highly unlikely.
- 1.9.4 Any receptors assigned an overall negligible level of effect at year 1 of operation will not be further considered or assessed in year 15 on the basis that effects are highly unlikely to increase to a level of significance at year 15 given year 1 is considered to present the worst-case scenario at operation.

1.10 Production of ZTVs and Visualisations

- 1.10.1 Zones of Theoretical Visibility (ZTVs) and visualisations (photomontages) are graphical images produced to assist and illustrate the LVIA and the cumulative assessment. The methodology used for viewpoint photography and photomontages accords with TGN 06/19, Landscape Institute, September 2019.

Methodology for Production of ZTVs

- 1.10.2 The ZTVs are calculated using ArcPro software to generate the zone of theoretical visibility of the Proposed Development. This software creates a 3D computer model of the existing landscape and the Proposed Development using digital terrain data as follows:
- Ordnance Survey Terrain 50: Used to produce the main or standard ZTV plot, these tiles provide a digital record of the existing landform of Great Britain, or Digital Terrain Model (DTM) at 10m elevation intervals based on 50m grid squares and models representing the specified geometry and position of the proposed solar farm. The computer model includes the entire LVA Study Area and takes account of the effects caused by atmospheric refraction and the Earth's curvature.
- 1.10.3 The resulting ZTV plots are overlaid on Ordnance Survey mapping at an appropriate scale and presented as figures using desktop publishing/graphic design software.

Methodology for Baseline Photography

1.10.4 Once a view has been selected, the location is visited, confirmed, and assessed with the aid of a visualisation in the field. The viewpoint location is micro-sited to avoid as far as reasonable foreground clutter and photographed during fair weather and light conditions. A photographic record is taken to record the view and the details of the viewpoint location and associated data are recorded to assist in the production of visualisations and to validate their accuracy.

1.10.5 The following photographic information is recorded:

- Date, time, weather conditions and visual range;
- GPS recorded 12 figure grid reference accurate to ~5-10m;
- GPS recorded Above Ordnance Datum (AOD) height data;
- The focal length of lens is confirmed;
- Horizontal field of view (in degrees); and
- Bearing to Target Site (proposed development).

1.10.6 All photographs included in this assessment were recorded with a digital SLR camera set to produce photographs equivalent to that of a manual 35 mm SLR camera with a fixed 50mm or 75mm focal length lens as required.

Weather Conditions

1.10.7 GLVIA 3 para 8.22 states:

“In preparing photomontages, weather conditions shown in the photographs should (with justification provided for the choice) be either:

representative of those generally prevailing in the area; or

taken in good visibility, seeking to represent a maximum visibility scenario when the development may be highly visible”.

1.10.8 In preparing photomontages for the LVIA, photographs will be taken in favourable weather conditions that are representative of the weather conditions generally and where possible, will be taken during periods of ‘good’ or ‘excellent’ visibility

conditions.

Methodology for Production of Visualisations

1.10.9 Each viewpoint has been illustrated with a photography of the Site to accommodate the Proposed Development. This includes a photograph of the existing view recorded in fair weather conditions presented as a single image to illustrate the nature of a typical view towards the Site accompanied by a panorama to illustrate wider context. These will be presented as:

- Type 1 Visualisation: an annotated photograph indicating the extent of the proposed development and other pertinent elements in the view to aid the reader understand the Site.

Baseline Photograph Production

1.10.10 Photographs are then taken using a digital SLR camera in combination with a panoramic head equipped tripod. Detailed information is then recorded on site to accurately position the viewpoint location (data such as: GPS grid co-ordinates; ground level information; compass bearings; and any other known references and viewpoint information).

1.10.11 To create the baseline panorama, the photographs from the viewpoint are then digitally joined using PTGui software to form a planar or cylindrical projection image or panorama using computer software to remove 'barrel distortion' caused by the camera lens. There are practical limitations to shooting viewpoint photographs only in very good or excellent visibility and at particular times of day or from location that avoid foreground clutter or other vertical features such as telegraph poles, particularly where this is a true representation of the view from that viewpoint area.

1.10.12 The completed panoramas/annotated photographs and accompanying data are then presented and annotated as figures using desktop publishing/graphic design software.

Limitations of Visualisations

1.10.13 The visualisations used in the LVIA are for illustrative purposes only and, whilst

useful tools in the assessment, are not considered to be completely representative of the extent of the Site that would be visible to users. The assessments are carried out from observations in the field and therefore may include elements that are not visible in the photographs.

1.10.14 The visualisations of the Site have a number of limitations when using them to form a judgement on visual effect. These include:

- The viewpoints illustrated are representative of views in the area but cannot represent visibility at all locations or all weather conditions throughout the year;
- The visualisations must be printed and viewed at the correct size as indicated on the figures;
- Images should be held flat at a comfortable arm's length. If viewing these images on a wall or board at an exhibition, stand at arm's length from the image presented to gain the best impression; and
- It is preferable to view printed images rather than view images on screen. Images on screen should be viewed using a normal PC screen with the image enlarged to the full screen height to give a realistic impression.

1.11 Glossary of Terms and Abbreviations

Note: Descriptions marked with an asterisk are repeated from the GLVIA 3 glossary.

Term/abbreviation	Definition
AOD	Above Ordnance Datum
AoV / FoV	Angle of View / Field of View
Artificial light	Light produced by electrical means.
CLVA	Cumulative Landscape and Visual Assessment
Cumulative effects	Additional changes caused by a Proposed Development in conjunction with other similar developments or as a combined effect of a set of developments, taken together' (Scottish Natural Heritage, 2012)
Cumulative landscape effects	Effects that 'can impact on either the physical fabric or character of the landscape, or any special values attached to it' (Scottish Natural Heritage, 2012)

Term/abbreviation	Definition
<p>Cumulative visual effects:</p> <p>In combination</p> <p>In succession</p> <p>Sequentially</p>	<p>Effects that can be caused by combined visibility, which ‘occurs where the observer is able to see two or more developments from one viewpoint’ and/or sequential effects which ‘occur when the observer has to move to another viewpoint to see different developments’ (Scottish Natural Heritage 2012)</p> <ul style="list-style-type: none"> • In combination: <p>Where two or more developments are or would be within the observer’s arc of vision at the same time without moving his/her head (GLVIA 3, 2013 Table 7.1).</p> • In succession: <p>Where the observer has to turn his/her head to see the various developments – actual and visualised (GLVIA 3, 2013 Table 7.1).</p> • Sequential cumulative effect. <p>Occurs where the observer has to move to another viewpoint to see the same or different developments. Sequential effects may be assessed for travel along regularly used routes such as major roads or popular paths (GLVIA 3, 2013 Table 7.1).</p>
<p>Development*</p>	<p>Any proposal that results in change to the landscape and/or visual environment.</p>
<p>Degree of change</p>	<p>A combination of the scale, extent and duration of an effect also defined as ‘magnitude’.</p>
<p>Designated Landscape*</p>	<p>Areas of landscape identified as being of importance at international, national or local levels, either defined by statute or identified in development plans or other documents.</p>

Term/abbreviation	Definition
Direct light	The artificial light source is visible. Note that light emanating from the window of a building is considered to be a 'direct' light source.
EIA	Environmental Impact Assessment
Elements*	Individual parts which make up the landscape, such as, for example, trees, hedges and buildings.
Enhancement*	Proposals that seek to improve the landscape resource of the site and its wider setting beyond its baseline condition.
Environmental fit	The relationship of a development to identified environmental opportunities and constraints in its setting.
Feature*	Particularly prominent or eye-catching elements in the landscape such as tree clumps, church towers or wooded skylines OR a particular aspect of the project proposal.
FoV	Field of View – the horizontal angle of the view illustrated in a visualisation.
GDL	Garden and Designed Landscape
Geographical Information System (GIS)	A system that captures, stores, analyses, manages and presents data linked to location. It links spatial information to a digital database.
GLVIA 3	Guidelines for Landscape and Visual Impact Assessment, Third Edition, published jointly by the Landscape Institute and Institute of Environmental Management and Assessment, 2013.
Heritage	The historic environment and especially valued assets and qualities such as historic buildings and cultural traditions.

Term/abbreviation	Definition
Historic Landscape Characterisation (HLC) and Historic Land-use Assessment (HLA)	Historic characterisation is the identification and interpretation of the historic dimension of the present-day landscape or townscape within a given area. HLC is the term used in England and Wales, HLA is the term used in Scotland.
Indirect effects*	Direct effects relate to the host landscape and concern both physical and perceptual effects on the receptor. Indirect effects relate to those landscapes and receptors which separated by distance or remote from the development and therefore are only affected in terms of visual or perceptual effects. The Landscape Institute also defines indirect effects as those which are not a direct result of the development but are often produced away from it or as a result of a complex pathway.
Indirect light	The light source is not visible but the light emanating from the source is apparent.
Infrared light	A type of light not visible to the human eye.
Iterative design process	The process by which project design is amended and improved by successive stages of refinement which respond to growing understanding of environmental issues.
Key characteristics	Those combinations of elements which are particularly important to the current character of the landscape and help to give an area its particularly distinctive sense of place.
Land cover	The surface cover of the land, usually expressed in terms of vegetation cover or lack of it. Related to but not the same as land use.

Term/abbreviation	Definition
Landscape and Visual Assessment (LVA)	A tool used to identify and assess the likely effects of change resulting from development both on the landscape as an environmental resource in its own right and on people's views and visual amenity.
Landscape Character Area (LCA)*	These are single unique areas which are the discrete geographical areas of a particular landscape type.
Landscape Character Assessment	The process of identifying and describing variation in the character of the landscape, and using this information to assist in managing change in the landscape. It seeks to identify and explain the unique combination of elements and features that make landscapes distinctive. The process results in the production of a Landscape Character Assessment.
Landscape Character Types (LCTs)*	Distinct types of landscape which are relatively homogenous in character. They are generic in nature in that they may occur in different areas in different parts of the country, but wherever they occur they share broadly similar combinations of geology, topography, drainage patterns, vegetation and historical land use and settlement patterns, and perceptual and aesthetic attributes.
Landscape capacity	The amount of specified development or change which a particular landscape and the associated visual resource is able to accommodate without undue negative effects on its character and qualities. (NE 2019)
Landscape character*	A distinct, recognisable and consistent pattern of elements in the landscape that makes one landscape different from another, rather than better or worse.

Term/abbreviation	Definition
Landscape classification	A process of sorting the landscape into different types using selected criteria but without attaching relative values to different sorts of landscape.
Landscape constraints	Components of the landscape resource such as views or mature trees recognised as constraints to development. Often associated with landscape opportunities.
Landscape effects*	<p>Effects on the landscape as a resource in its own right.</p> <p>An assessment of landscape effects deals with the effects of change and development on landscape as a resource. The concern here is with how the proposal will affect the elements that make up the landscape, the aesthetic and perceptual aspects of the landscape and its distinctive character. (GLVIA 3 2013, Para 5.1).</p>
Landscape fit	The relationship of a development to identified landscape opportunities and constraints in its setting.
Landscape patterns	Spatial distributions of landscape elements combining to form patterns, which may be distinctive, recognisable and describable e.g. hedgerows and stream patterns.
Landscape quality (condition)*	A measure of the physical state of the landscape. It may include the extent to which typical character is represented in individual areas, the intactness of the landscape and the condition of individual elements.
Landscape qualities	<p>A term used to describe the aesthetic or perceptual and intangible characteristics of the landscape such as scenic quality, tranquillity, sense of wildness or remoteness.</p> <p>Cultural and artistic references may also be described here.</p>

Term/abbreviation	Definition
Landscape receptors *	Defined aspects of the landscape resource that have the potential to be affected by a proposal
Landscape resource	The combination of elements that contribute to landscape context, character, and value.
Landscape sensitivity	The sensitivity of the landscape to a particular development considers the susceptibility of the landscape and its value.
Landscape strategy	The overall vision and objectives for what the landscape should be like in the future, and what is thought to be desirable for a particular landscape type or area as a whole, usually expressed in formally adopted plans and programmes or related documents.
Landscape value*	<p>The relative value that is attached to different landscapes by society. A landscape may be valued by different stakeholders for a whole variety of reasons.</p> <p>The value of the Landscape Character Types or Areas that may be affected, based on review of any designations at both national and local levels, and, where there are no designations, judgements based on criteria that can be used to establish landscape value.</p>
Level of effect	Determined through the combination of sensitivity of the receptor and the proposed magnitude of change brought about by the development.
LLA	Local Landscape Area
Magnitude (of effect)*	A term that combines judgements about the size and scale of the effect, the extent of the area over which it occurs, whether it is reversible or irreversible and whether it is short term or long term in duration.
MCA	Marine Character Area

Term/abbreviation	Definition
Mitigation	Measures which are proposed to prevent, reduce and where possible offset any adverse effects (or to avoid, reduce and if possible remedy identified effects. (GLVIA 3, 2013 Para 3.37).
Natural light	Light supplied by the sun, directly or indirectly, the moon and stars.
Perception	Combines the sensory (that we receive through our senses) with the cognitive (our knowledge and understanding gained from many sources and experiences).
Perceptual Aspects	A landscape may be valued for its perceptual qualities, notably wildness and/or tranquillity. (GLVIA 3, 2013 Box 5.1)
Beneficial or Adverse Types of Landscape Effect	The landscape effects may be beneficial, neutral, or adverse. In landscape terms – a beneficial effect would require development to add to the landscape quality and character of an area. Neutral landscape effects would include low or negligible changes that may be considered as part of the ‘normal’ landscape processes such as maintenance or harvesting activities. An adverse effect may include the loss of landscape elements such as mature trees and hedgerows as part of construction leading to a reduction in the landscape quality and character of an area.

Term/abbreviation	Definition
<p>Beneficial or Adverse Types of Visual Effect</p>	<p>The visual effects may be beneficial, neutral, or adverse.</p> <p>In visual terms – beneficial or adverse effects are less easy to define or quantify and require a subjective consideration of a number of factors affecting the view, which may be beneficial, neutral, or adverse. Opinions as to the visual effects of solar energy developments vary widely, however it is not the assumption of this assessment that all change, including substantial levels of change is an adverse experience.</p> <p>Rather this assessment has considered factors such as the visual composition of the landscape in the view together with the design and composition, which may or may not be reasonably, accommodated within the scale and character of the landscape as perceived from the receptor location.</p>
<p>Probability of Effect</p>	<p>The probability of a landscape and visual effect occurring as a result of this Development should be regarded as certain, subject to the stated project design and the continuance of the existing, baseline landscape resource, including known changes such as other permitted solar farm development.</p> <p>The probability of cumulative effects however is variable. Whereas those effects related to existing solar energy development and those under construction are considered as certain, effects related to development with planning consent are only considered as likely. Solar energy development sites for which there is a submitted planning application are considered as uncertain and other solar energy development for which no planning application has been made are considered as uncertain / unknown, as the level of uncertainty would be greater.</p>

Term/abbreviation	Definition
Rarity	The presence of rare elements or features in the landscape or the presence of a rare Landscape Character Type. (GLVIA 3 2013, Box 5.1)
Receptor	Physical landscape resource, special interest, or viewer group that will experience an effect.
Recreation Value*	Evidence that the landscape is valued for recreational activity where experience of the landscape is important. (GLVIA 3 2013, Box 5.1)
Representativeness*	Whether the landscape contains a particular character and/or features or elements which are considered particularly important examples.
Residual effects	Likely environmental effects, remaining after mitigation.
Scale Indicators	Landscape elements and features of a known or recognisable scale such as houses, trees, and vehicles that may be compared to other objects, where the scale of height is less familiar, to indicate their true scale.
Scenic quality	Depends upon perception and reflects the particular combination and pattern of elements in the landscape, its aesthetic qualities, its more intangible sense of place or 'genius loci' and other more intangible qualities. (GLVIA 3 2013, Box 5.1)
Seascape	Landscapes with views of the coast or seas, and coasts and adjacent marine environments with cultural, historical and archaeological links with each other.
Sense of Place (genius loci)	The essential character and spirit of an area: 'genius loci' literally means 'spirit of the place'.

Term/abbreviation	Definition
Sensitivity*	A term applied to specific receptors, combining judgements of the susceptibility of the receptor to the specific type of change or development proposed and the value associated to that receptor.
SLA	Special Landscape Area
SNH / NatureScot	Scottish Natural Heritage Now known as NatureScot.
Susceptibility*	The ability of a defined landscape or visual receptor to accommodate the specific Proposed Development without undue negative consequences.
Sustainability*	The principle that the environment should be protected in such a condition and to such a degree that ensures new development meets the needs of the present without compromising the ability of future generations to meet their own needs.
Temporary or permanent effects	Effects may be considered as temporary or permanent.
Time depth	Historical layering – the idea of landscape as a ‘palimpsest’, a much written-over asset of landscape.
Type or Nature of effect	Whether an effect is direct or indirect, temporary or permanent, beneficial (positive), neutral or adverse (negative) solus or cumulative.

Term/abbreviation	Definition
Viewpoints	<p>Selected for illustration of the visual effects fall broadly into three groups:</p> <p>Representative Viewpoints: selected to represent the experience of different types of visual receptor, where larger numbers of viewpoints cannot all be included individually and where the visual effects are unlikely to differ – for example certain points may be chosen to represent the view of users of particular public footpaths and bridleways.</p> <p>Specific Viewpoints: chosen because they are key and sometimes promoted viewpoints within the landscape, including for example specific local visitor attractions, such as landscapes with statutory landscape designations or viewpoints with particular cultural landscape associations.</p> <p>Illustrative Viewpoints: chosen specifically to demonstrate a particular effect or specific issues, which might, for example, be the restricted visibility at certain locations. (GLVIA 3 2013, Para 6.19)</p>
Visual amenity	<p>The overall views and surroundings, which provide a visual setting or backdrop to the activities of people living, working, participating in recreational activities, visiting or travelling through an area.</p>
Visual dominance	<p>A visual effect often referred to in respect of residential properties that in relation to development would be subject to blocking of views, or reduction of light / shadowing, and high levels of visual intrusion.</p>
Visual effect*	<p>Effects on specific views and on the general visual amenity experienced by people.</p>
Visual Receptors*	<p>Individuals and/or defined groups of people who have the potential to be affected by a proposal.</p>

Term/abbreviation	Definition
Visual sensitivity	The sensitivity of visual receptors such as residents, relative to their location and context, to visual change proposed by development.
Visualisation	Computer visualisation, photomontage, or other technique to illustrate the appearance of the development from a known location.
WCP	Wales Coast Path
Zone of Theoretical Visibility (ZTV)*	A map, usually digitally produced, showing areas of land within which, a development is theoretical visible.