



# Tween Bridge Solar Farm

A Nationally Significant Infrastructure Project in the Energy Sector

---

## Preliminary Environmental Information Report

### Technical Appendix 6.1 – LVIA Assessment Criteria

October 2023



Visit: [www.tweenbridgesolar.co.uk](http://www.tweenbridgesolar.co.uk)  
Email: [info@tweenbridgesolar.co.uk](mailto:info@tweenbridgesolar.co.uk)



# 1. Landscape and Visual Impact Assessment Methodology

## Introduction

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

## Nature (sensitivity) of landscape features

- 1.7. The nature or sensitivity of an individual landscape feature or element reflects its susceptibility to change and its value. It is therefore a function of factors such as its quality, rarity, contribution to landscape character, degree to which the particular element can be replaced and cultural associations or designations that apply. A particular feature may be more 'sensitive' in one location than in another often as a result of local values associated with the feature or in relation to its function as a key or distinctive characteristic of that local landscape. Therefore it is not possible to simply place different types of landscape features into sensitivity bands. Where individual landscape features are affected, professional



judgement is used as far as possible to give an objective evaluation of its sensitivity. Justification is given for this evaluation where necessary.

- 1.8. Both the susceptibility and value of individual landscape features has been described as very high, high, medium, low or very low. These are then combined in order to establish an overall nature or sensitivity of individual landscape features which has also been described as very **high, high, medium, low or very low**.

## Nature (sensitivity) of landscape character

- 1.9. Sensitivity of landscape character is also assessed through a consideration of both the susceptibility to a development of the type proposed and the value attached to the landscape. In the case of the potential for effects on landscape character, susceptibility means the ability to accommodate the proposed development without undue consequences for the existing characteristics of the site. What is meant by the value of the landscape in a Landscape and Visual Impact Assessment is the relative value that is attached to the landscape by society as a whole, bearing in mind that different stakeholders may have differing values regarding any given landscape. Paragraphs 5.20 and Box 5.1 of GVLIA set out a range of factors that can contribute to an understanding landscape value. Consideration of whether there are any formal landscape designations covering a landscape is one element of considering the value, but also relevant is the condition of the landscape, its rarity in the local area, the recreational value it provides, and any ecological or heritage importance the landscape may hold. These are considered alongside its perceptual qualities (such as tranquillity) and any associations which may be held with the landscape, such as if it has been highlighted in art, music or poetry. Further clarification on how to consider the matter of landscape value is set out in the Landscape Institute Technical Guidance Note (O2/21) 'Assessing the Value of Landscapes Outside National Designations'.
- 1.10. In this appraisal, the nature or sensitivity of landscape character is considered with reference to published landscape character areas/types and where relevant local landscape units as defined in this LVA for the purposes of this study. Information regarding the key characteristics of these local character areas/units has been extrapolated from relevant published studies where possible and combined with observations from on-site appraisal. With judgments undertaken employing professional judgement.
- 1.11. Both the susceptibility and value of landscape character has been described as very high, high, medium, low or very low. These are then combined in order to establish an overall nature or sensitivity of landscape character which has also been described as **very high, high, medium, low or very low**.

## Nature (sensitivity) of visual receptors

- 1.12. The nature or sensitivity of visual receptor groups reflects their susceptibility to change and the value associated with the specific view in question. Sensitivity varies depending on a number of factors such as the occupation of the viewer, their viewing expectations, duration of view and the angle or direction in which they would see the site. Whilst most views are valued by someone, certain viewpoints are particularly highly valued for either their cultural or historical associations and this can increase the sensitivity of the view. The following criteria are provided for guidance only and are not exclusive:



- 1.13. **Very Low Sensitivity** – People engaged in industrial and commercial activities or military activities.
- 1.14. **Low Sensitivity** – People at their place of work (e.g. offices); shoppers; users of trunk/major roads and passengers on commercial railway lines (except where these form part of a recognised and promoted scenic route).
- 1.15. **Medium Sensitivity** – Users of public rights of way and minor roads which do not appear to be used primarily for recreational activities or the specific enjoyment of the landscape; recreational activities not specifically focused on the landscape (e.g. football); motel users.
- 1.16. **High Sensitivity** – Residents at home; users of long distance or recreational trails and other sign posted walks; users of public rights of way and minor roads which appear to be used for recreational activities or the specific enjoyment of the landscape; users of caravan parks, campsites and ‘destination’ hotels; tourist attractions with opportunities for views of the landscape (but not specifically focused on a particular vista); slow paced recreational activities which derive part of their pleasure from an appreciation of setting (e.g. bowling, golf); allotments.
- 1.17. **Very High Sensitivity** – People at recognised vantage points (often with interpretation boards), people at tourist attractions with a focus on a specific view, visitors to historic features/estates where the setting is important to an appreciation and understanding of cultural value.
- 1.18. It is important to appreciate that it is the visual receptor (i.e. the person) that has a sensitivity and not a property, public right of way or road. Also, the sensitivity of a receptor group is not influenced by the number of receptors. As an example, although many people may use a motorway, this does not increase the sensitivity of each receptor using it. Likewise, a residential property may only have one person living in it but this does not reduce the sensitivity of that one receptor. Whilst the number of receptors affected at any given location may be a planning consideration, for the purposes of this assessment it does not alter the sensitivity of the receptor group.
- 1.19. Where judgements are made about the sensitivity of assessment viewpoints, the sensitivity rating provided is an evaluation of the sensitivity of the receptor group represented by the viewpoint and not a reflection of the number of people who may experience the view.
- 1.20. For some developments (e.g. wind energy developments) it important not to confuse the concept of visual sensitivity with the perception of the development. For example, it is recognised that some people consider wind turbines to be unattractive, but others enjoy the sight of them.

## **Nature (magnitude) of effects – General note**

- 1.21. The following discussion sets out the approach adopted in this LVIA in relation to a specific issue arising in GLVIA3 which requires a brief explanation.
- 1.22. Prior to the publication of GLVIA3, LVIA practice had evolved over time in tandem with most other environmental disciplines to consider the level of effect (relative significance) principally as a function of two factors, namely: sensitivity of the receptor and magnitude of



the effect (the term 'magnitude' being a word most commonly used in LVIA and most other environmental disciplines to describe the size or scale of an effect).

- 1.23. Box 3.1 on page 37 of GLVIA3 references a 2011 publication by IEMA entitled 'The State of EIA Practice in the UK' which reiterates the importance of considering not just the scale or size of effect but other factors which combine to define the 'nature of the effect' including factors such as the probability of an effect occurring and the duration, reversibility and spatial extent of the effect.
- 1.24. The flow diagram on page 39 of GLVIA3 suggests that the magnitude of effect is a function of three factors (the size/scale of the effect, the duration of the effect and the reversibility of the effect).
- 1.25. For certain types of development (e.g. residential) the proposed development is permanent and non-reversible. For other types of development (e.g. wind and solar energy) the proposed development is for a time-limited period and would be largely reversible at the end of the scheme's operational period. Reversibility of a proposed development is a material consideration in the planning balance but does not reduce the scale of the effect (i.e. the 'magnitude' in the traditional and commonly understood sense of the word) during the period in which the scheme is operational. In this regard, it would be incorrect to report a lesser magnitude of change to a landscape or view as a result of a time-limited effect or the relative reversibility of the effect.
- 1.26. For clarification, the approach taken in this LVIA has been to consider magnitude of effect solely as the scale or size of the effect in the traditional sense of the term 'magnitude'. Having identified the magnitude of effect as defined above, the LVIA also describes the duration and reversibility of the identified effect, taking these factors into account as appropriate in the consideration of the level (relative significance) of the effect.
- 1.27. In the context of the above discussion the following criteria have been adopted to describe the magnitude of effects.

## Nature (magnitude) of effects on landscape features

- 1.28. Professional judgement has been used as appropriate to determine the magnitude of direct physical effects on individual existing landscape features using the following criteria as guidance only:
  - **Very Low Magnitude of Change** – Negligible loss or alteration to existing landscape features;
  - **Low Magnitude of Change** – Minor loss or alteration to part of an existing landscape feature;
  - **Medium Magnitude of Change** – Some loss or alteration to part of an existing landscape feature; and
  - **High Magnitude of Change** – Major loss or major alteration to an existing landscape feature.



- **Very High Magnitude of Change** – Total loss or alteration to an existing landscape feature.

## Nature (magnitude) of effects on landscape character

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

- **Very Low Magnitude of Change** – Negligible loss or alteration to existing landscape features; no notable introduction of new features into the landscape; and negligible change to the key physical and/or perceptual attributes of the landscape.
- **Low Magnitude of Change** – Minor loss or alteration to existing landscape features; introduction of minor new features into the landscape; or minor alteration to the key physical and/or perceptual attributes of the landscape.
- **Medium Magnitude of Change** – Some notable loss or alteration to existing landscape features; introduction of some notable new features into the landscape; or some notable change to the key physical and/or perceptual attributes of the landscape.
- **High Magnitude of Change** – A major loss or alteration to existing landscape features; introduction of major new features into the landscape; or a major change to the key physical and/or perceptual attributes of the landscape.
- **Very High Magnitude of Change** – Total loss or alteration to existing landscape features; introduction of dominant new features into the landscape; a very major change to the key physical and/or perceptual attributes of the landscape.

## Nature (magnitude) of effects on views and visual amenity

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

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

- **Very Low Magnitude of Change** – Negligible change in views;
- **Low Magnitude of Change** – Some change in the view that is not prominent but visible to some visual receptors;
- **Medium Magnitude of Change** – Some change in the view that is clearly notable in the view and forms an easily identifiable component in the view;



- **High Magnitude of Change** – A major change in the view that is highly prominent and has a strong influence on the overall view.
- **Very High Magnitude of Change** – A change in the view that has a dominating or overbearing influence on the overall view.

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

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

### **Type of effect**

1.34. The assessment identifies effects which may be beneficial, adverse or neutral. Where effects are described as neutral this is where the beneficial effects are deemed to balance the adverse effects.

1.35. For some developments (e.g. wind energy or solar developments) it is recognised that some people consider the development to be unattractive, but others enjoy the sight of it. A landscape and visual assessment for these developments therefore assumes that all identified landscape and visual effects are 'adverse' unless stated otherwise. This allows decision makers to assess a worst-case scenario.

### **Duration of effect**

1.36. For the purposes of this assessment, the temporal nature of each effect is described as follows:

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

### **Reversibility of effect**

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

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



## Level of effect and identification of significant effects

- 1.38. The purpose of an LVIA when produced in the context of an EIA is to identify and describe any significant effects on landscape and visual amenity arising from the proposed development.
- 1.39. Neither EC Directive 2011/12/EU nor the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 define a threshold at which an effect may be determined to be significant. In certain other environmental disciplines there are regulatory thresholds or quantitative standards which help to determine the threshold of what constitutes a significant effect. However in LVIA, any judgement about what constitutes a significant effect is ostensibly a subjective opinion expressed as in this case by a competent and appropriately qualified professional assessor.
- 1.40. The level (relative significance) of landscape and visual effects is determined by combining judgements regarding the sensitivity of the landscape or view, magnitude of change, duration of effect and the reversibility of the effect. In determining the level of residual effects, all mitigation measures are taken into account.
- 1.41. The relative level of effect is described as **major, major/moderate, moderate, moderate/minor, minor or minor/no effect. No effect** may also be recorded as appropriate where the effect is so negligible it is not even noteworthy.
- 1.42. Those effects described as major, major/moderate and in some cases moderate may be regarded as **significant** effects as required by the Town and Country Planning (Environmental Impact Assessment) Regulations 2017.

## Cumulative Assessment

- 1.42.1. As part of the consultation on the draft PEIR the applicant will seek to agree a list of cumulative developments with the relevant planning authorities. There will be focus on proportionality and identifying likely significant effects only, (in line with National Infrastructure Planning Advice Note Seventeen: Cumulative effects assessment relevant to nationally significant Infrastructure projects).



