East Pye Solar

Environmental Statement

Volume 3: Appendix 7.1 - Landscape and Visual Methodology

Revision 1

March 2026

Planning Inspectorate Reference: EN0110014

Document Reference: APP/6.3.7.1
APFP Regulation 5(2)(a)

Table of Contents

Tables

1 Introduction

1.1 Definition of Landscape

1.1.1 Landscape was defined at the European Landscape Convention:

> *"The landscape is part of the land, as perceived by local people or visitors, which evolves through time as a result of being acted upon by natural forces and human beings (Ref 1)."*

1.1.2 Landscape was also defined by Swanwick and Land Use Consultants as follows:

> *"Landscape is about the relationship between people and place. It provides the setting for our day-to-day lives. The term does not mean just special or designated landscapes, and it does not only apply to the countryside. Landscape can mean a small patch of urban wasteland as much as a mountain range, and an urban park as much as an expanse of lowland plain. It results from the way that different components of our environment – both natural (the influences of geology, soils, climate, flora and fauna) and cultural (the historical and current impact of land use, settlement, enclosure and other human interventions) – interact together and are perceived by us. People's perceptions turn land into the concept of landscape (Ref 2)."*

1.2 Professional Standards and Guidance

1.2.1 The Landscape and Visual Impact Assessment (LVIA) has been carried out by a landscape architect and checked and reviewed by a chartered landscape architect, a Registered Practice of the Landscape Institute (LI) and a corporate member of the Institute of Sustainability and Environmental Professionals.

1.2.2 The author's methodology for LVIA is based on professional experience of landscape and visual appraisals and impact assessments, the Guidelines for Landscape and Visual Impact Assessment (Ref 3) (Landscape Institute / Institute of Environmental Management and Assessment, 3rd Edition, 2013) and its associated clarifications. In addition, the LVIA methodology considers the principles set out in the following Landscape Institute technical notes and guidance:

i. LI Technical Guidance Note (LITGN-2024-01) Notes on Clarifications on aspects of the 3rd Edition Guidelines on Landscape and Visual Impact Assessment (LI, 2024) (Ref 4).

ii. LI Technical Information Note 08/2015: Landscape Character Assessment (LI, February 2016) (Ref 5).

iii. LI Technical Guidance Note 02/21: Assessing Landscape Value Outside National Designations (LI, February 2021) (Ref 6); and

iv. LI Technical Guidance Note 06/19 Visual Representation of Development Proposals (LI, September 2019) and the supporting Technical Information Notes: TIN 07/19 Visual Representation Glossary, TIN 08/19 Camera Auto Settings, and TIN 09/19 Earth Curvature (Ref 7).

1.3 Approach to the Assessment

1.3.1 The Guidelines for Landscape and Visual Impact Assessment (GLVIA3) (Ref 8) notes in paragraph 1.17, page 9, in reference to the European Union Directive 2011/92/EU (now as amended by 2014/52/EU):

> *''The Directive is clear that the emphasis is on the identification of likely significant environmental effects. This should embrace all types of effect and includes, for example, those that are positive/beneficial and negative/adverse, direct and indirect, and long and short term, as well as cumulative effects. Identifying significant effects stresses the need for an approach that is in proportion to the scale of the project that is being assessed and the nature of its likely effects. Judgement needs to be exercised at all stages in terms of the scale of investigation that is appropriate and proportional. This does not mean that effects should be ignored, or their importance minimised but that the assessment should be tailored to the particular circumstances in each case."*

1.3.2 On the 31st of December 2020, the UK left the European Union. The European Union (Withdrawal) Act 2018 provides the new constitutional framework for continuity of retained EU law in the UK. European Union Directive 2011/92/EU (now as amended by 2014/52/EU) is retained and, in UK law, is achieved through the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017.

1.3.3 The assessment of landscape and visual effects aims to be as objective as possible; however, professional judgements are required to be made, as GLVIA3 explains in paragraph 2.23, page 21:

> *"Professional judgement is a very important part of LVIA. Whilst there is some scope for quantitative measurement of some relatively objective matters, for example the number of trees lost to construction… much of the assessment must rely on qualitative judgements, for example about what effect the introduction of a new development of land use change may have on visual amenity, or about the significance of change in the character in the landscape and whether it is positive or negative."*

1.3.4 In accordance with guidance, the LVIA considers the effects on landscape as an environmental resource in its own right, including landscape character and landscape features (landscape receptors), and people's views / visual amenity (visual receptors), as separate assessment components. The LVIA also identifies and assesses the negative and positive effects (type of effects) and significance of change arising from the Scheme on landscape and visual receptors.

1.3.5 The assessment of landscape and visual effects makes comparison with the baseline year of 2024/2025, and the assessment periods comprise: i) during the construction

period; ii) at operation (i.e. on completion of the development); and iii) 15 years after completion of the development, when the mitigation planting is assumed to have successfully established and grown to provide effective mitigation. The assessment of visual effects in the winter period is considered to represent the worst-case visibility scenario, due to deciduous vegetation not being in leaf and therefore the Scheme would be most visible.

1.3.6 The LVIA assesses the maximum parameters which are being sought to be secured as part of the DCO application, and which are set out in **ES Volume I, Chapter 4 – The Scheme [EN0110014/APP/6.1.4]** and shown geographically on the **Works Plans [EN0110014/APP/2.4].**

1.3.7 The LVIA has been prepared as part of an ES and is submitted to accompany the planning application.

2 Scope of Assessment

2.1 Potential Landscape and Visual Effects

2.1.1 Potential landscape and visual effects arising from the Scheme are those upon the following receptors:

- Landscape character; and landscape features (the 'fabric' or components of the site, which contribute to character); and
- People's views and visual amenity, from publicly accessible locations.

Study Area

2.1.2 GLIVA3 states that the Study Area must be reasonable and proportionate and must ensure that the focus when defining the appropriate Study Area is on where likely significant effects upon Landscape and Visual receptors may occur, together with likely significant cumulative effects.

2.1.3 The Study Area has been informed through a combination of professional experience by consultation with the relevant bodies, a review of a search area extending to a 5km radius from each of the individual Sites, a walkover of the Order Limits undertaken in 2024 and further detailed survey in 2025 (to collect baseline photography). Consideration of the potential visibility of the components of the Scheme has also been informed by Zone of Theoretical Visibility (ZTV) Analysis as presented on **Figures 7.5.1 – 7.5.11 Zone of Theoretical Visibility [EN0110014/APP/6.2.7.5.1 – 6.2.7.5.11]**.

2.1.4 Taking a proportionate and robust approach, the Study Area defined for the ES has been established to reflect the various components of the Scheme which have with varying heights (as set out in **ES: Chapter 4 The Scheme [EN0110014/APP/6.1.4**]) which have influence on the potential visual envelope.

2.1.5 Professional experience from recent landscape and visual assessments and appraisals for solar development, has typically shown that significant effects on landscape and visual receptors would not typically be experienced beyond 2-3km.

2.1.6 At the EIA Scoping stage, a provisional study area of 2km was identified, as it is considered that no likely significant landscape or visual effects resulting from the Scheme would occur beyond these distances. This was defined due to the limited height of the elements that comprise the Scheme, the generally flat topography within the landscape surrounding the Site, which limits views, and the presence of field boundary vegetation and woodland blocks within and adjacent to the individual Sites.

2.1.7 Following Scoping and PEIR further analysis has been undertaken to refine the Study Area. **Figures 7.5.1 - 7.5.11 Zone of Theoretical Visibility with View Locations [EN0110014/APP/6.2.7.5.1 – EN0110014/APP/6.2.7.5.11]** present a range of ZTV analyses for the Scheme elements, namely the solar PV arrays, the BESS, the National Grid (NG) Substation (and overhead powerline realignment), 400kV

Substations and 132kV Substations. As part of the ES a range of graded ZTV to demonstrate the percentage visibility of each of the Sites has been undertaken.

2.1.8 Given each Scheme element has a different height, and each Sites context is different, the analysis shows visibility is variable across the search area. Further information of the visual baseline for each of the Sites is set out in **Appendix 7.4: Visual Baseline [EN0110014/APP/6.3.7.4]**.

2.1.9 In summary visibility is focused within the short to medium distance from the individual Sites. Generally, visibility is typically limited beyond 2 km from the Order Limits when reviewing the solar PV arrays, and 132kv Substations (Sites 4, 7, and 10), with more distant visibility possible for the NG Substation and overhead powerline realignment at Site 1, and the 400kv Substations at the BESS Site, Site 1 and Site 5.

2.1.10 The Study Area for this assessment, covers the entire Order Limits and applies offsets to the various components, as follows:

- A 3km Study Area extending from the NG Substation (including overhead line works) and 400kv Substation elements.
- A 2km Study Area extending from the BESS Site, and from the boundary of Sites 1 to 10 (which includes the solar arrays and 132kv Substations).
- A 1km Study Area extending from the Cable Route Corridor (CRC).

2.1.11 Since PEIR the CRC has been refined to a narrower corridor, however no ZTV analysis has been undertaken for the CRC as all permanent features will be located below ground once installed and the activity to install (which will be visible) is short term and reversible.

2.1.12 This approach results in a variable Study Area which is visible on **Figures 7.1 Landscape Designations [EN0110014/APP/6.2.7.1]** and is reflective of professional experience with relation the area likely to experience significant effects.

Temporal Scope: Assessment Year

2.1.13 The assessment scenarios for the purposes of the LVIA chapter and supporting appendices are:

- Existing Baseline: 2025, This is the principal baseline against which environmental effects will be assessed.
- Construction Phase Effects: 2028 – 2030. The Scheme assumes commencement of construction in 2028 and that the Scheme is built out over a 24-month period.
- Operation: 2031. This is expected to be the earliest date that the Scheme can be fully built out and operational.

- A future year of 2046 (15 years post first operation of the Scheme) is considered for this LVIA chapter and supporting appendices i.e., 15 years after commissioning, which is the typical period for the establishment of landscape planting.

- Decommissioning 2091. This would be the earliest year that decommissioning would commence based on the anticipated 60-year design life of the Scheme. Decommissioning is expected to take between 12 and 24 months and would be undertaken in phases. A 24-month decommissioning phase has been assumed for the purposes of the realistic worst-case assessment in the LVIA.

2.1.14 The LVIA considered the Landscape and Visual Impact of the Scheme at all three stages of the Scheme described above. The 'existing baseline' year for the LVIA is 2025 since this is the period in which the baseline studies for the LVIA has been undertaken. Where relevant, 'future baseline' conditions are also predicted for each assessment scenario, whereby the conditions anticipated to prevail at a certain point in the future (assuming the Scheme does not progress) are identified for comparison with the predicted conditions with the Scheme.

2.2 Landscape Receptors for Landscape Effects Assessment

2.2.1 Landscape receptors are components of the landscape which are likely to be affected by the Scheme. These comprise landscape designations, landscape character and key characteristics, landscape features, and specific aesthetic or perceptual aspects of the landscape, within the Study Area.

2.2.2 Further detail on the landscape receptors considered as part of this assessment are set out in **ES: Chapter 7 – Landscape and Visual [EN0110014/APP/6.1.7]** and **Appendix 7.2: Landscape Baseline [EN0110014/APP/6.3.7.2].**

2.3 Visual Receptors for the Assessment of Visual Effects

2.3.1 Visual receptors are always people and their views at particular places; and will, for example, comprise people using Public Rights of Way, public open spaces, public realm areas or other outdoor recreational facilities; people who may be visiting, living or working within the study area; and people travelling by roads and rail.

2.3.2 View locations are selected to represent visual receptor's typical views (i.e. to be characteristic, or representative, of examples of people's views) for the purpose of the LVIA.

2.3.3 The following types of views, from publicly accessible locations, are typically considered in an LVIA:

i. Representative views (for example representing views of people using a particular footpath);

ii. Specific views (for example a Key View, or an important view from a specific visitor attraction);

iii. Illustrative views (chosen to demonstrate a particular effect/specific issue); and

iv. Sequential views (for example, transient views which occur when travelling along key routes or designated Scenic Routes).

2.3.4 View locations have been agreed with South Norfolk Council. In summary 135 view locations and the associated visual receptors selected for the visual assessment have been selected. View locations may also be included to demonstrate there is no visibility / no visual effect for visual receptors.

2.3.5 Further detail on the visual receptors and selected view locations considered as part of this assessment are set out in **ES Volume 1, Chapter 7 – Landscape and Visual [EN0110014/APP/6.1.7**] and **Appendix 7.4: Visual Baseline [EN0110014/APP/6.3.7.4]**.

Key Views

2.3.6 Key Views are those strategic views, panoramas or contained views which are identified as being important views across a townscape or landscape; these being views from parks and other publicly accessible spaces, or streets, or Conservation Areas, that take in important or defining landmark features, and which help to define key characteristics of that landscape or location.

2.3.7 Key Views may be protected and designated through local planning policy. Alternatively, Key Views may be identified and published in local studies or visual strategies, Conservation Area appraisals or Tall Building design guidance. Key Views are reviewed through the LVIA baseline data collection and review process.

2.3.8 Where there are no published Key Views, a local planning authority may identify locally important views (Local Key Views) relevant to a site or scheme through the scoping process; for example, views of a landmark within an historic town core which is visible in long distance views from outside of the town / city, or which is a notable local landmark from within the surrounding area. Where this occurs, the nature and source of the Local Key View is set out in the LVIA.

2.3.9 No Key Views have been identified as part of this assessment.

3 Assessment Methodology

3.1 Baseline Data Collection and Review

Desktop Study

3.1.1 The initial step in LVIA is to establish the baseline landscape and visual conditions. Background data is collected and reviewed to establish the baseline landscape and landscape character receptors and potential visual receptors. The data includes the nature of topography, landscape planning designations and published sources of landscape character or, where relevant, townscape character.

3.1.2 Typical information sources include:

- Ordnance Survey Open Data for mapping.
- 1:25,000 OS Explorer, for example via Bing Maps, for a general map overview of the Order Limits and surrounding area, as well as to review the Public Rights of Way network (bridleways, footpaths, byways, other routes), including names and locations of Long-Distance Route or National Trails, and for Open Access Land area locations and boundaries.
- Google Earth Pro for aerial photography and Google Street View.
- An initial review of statutory and non-statutory designations.
- National Cycle Network Routes.
- Historic England.
- The National Planning Policy Framework.
- Local authority websites for Local Plans and Development Frameworks, including Area Action Plans, if relevant.
- National Character Area Profiles (Natural England, 2014).
- Regional, borough, district or local landscape character assessments and relevant supplementary design or planning guidance (SPD or SPG).
- Relevant Conservation Area appraisals.

Landscape and Visual Survey and Photographic Record

3.1.3 The Order Limits and surrounding area were visited in January / February 2025, June / July 2025, and November 2025 to undertake the landscape and visual survey, and to collect the photographic record of the visual baseline, to represent people's views

from the selected assessment view locations. This exercise also enables the LVIA assessor to:

i. Determine the extent of visibility of the Area And any existing built form or structures.

ii. Determine the visibility of the Scheme, utilising the results from the ZTV plan to guide the field work;

iii. Gain further understanding of the landscape components which create the landscape character; and to

iv. Carry out the assessment of landscape and visual effects.

3.1.4 Where timings make it possible, representative baseline photographs are taken during winter months in addition to summer. Views of the Order Limits are likely to be greatest during winter months, when intervening trees are without the screening benefit of leaves and full canopies. During summer months, views of the Order Limits are typically reduced due to intervening trees being in full leaf, and therefore the winter visual survey is considered to demonstrate the 'worst case' baseline of views.

3.1.5 The methodology used for photography is set out at Section 4.2 of this document.

3.2 Assessment Stages

3.2.1 A three-stage assessment process has been adopted for the LVIA, in accordance with the Guidelines for Landscape and Visual Impact Assessment (Landscape Institute / Institute of Environmental Management and Assessment, 3rd Edition, 2013). Firstly, the sensitivity of receptors has been assessed. Secondly the magnitude of effects likely to result from the Scheme has been assessed. Lastly, the level of significance of the identified landscape or visual effect on the receptor has been assessed. The type of effect has also been determined.

Type of Effects

3.2.2 The principal sources of change to landscape character / landscape receptors and people's views and visual amenity, arise from the introduction of new built form and/or structures, and new, or changes to, landscape elements and landscape character.

3.2.3 Changes will be direct, or indirect. Direct effects are those which result directly from the development; whereas indirect, or secondary, effects may arise as a consequential change resulting from the development, for example: changes to offsite and downstream vegetation, because of alterations to a drainage regime.

Direction of Effects

3.2.4 Changes may be beneficial or adverse; and some changes may initially be adverse, but over time gradually improve. Beneficial effects have a positive influence on the

receptor (enhancement); alternatively, adverse effects have a negative influence on the receptor (degradation).

3.2.5 It is possible that the type of effect may be judged to be neutral. Where a neutral type of effect is judged to occur for landscape receptors, there would be a change to the landscape features and/or characteristics, but the change would be entirely consistent or in keeping with the existing landscape character or landscape features, such that the existing character or features are maintained, and the change would not cause deterioration or enhancement of the character or features. Where a neutral type of effect is judged to occur for visual receptors, there would be a change to the composition of the view, but that change would be consistent or entirely in keeping with the existing elements of the baseline view, maintain the composition and quality of the existing baseline view, and would not enhance or deteriorate the baseline view.

3.3 Methodology for the Assessment of Landscape Effects

3.3.1 The assessment of landscape effects considers how the Scheme would affect the landscape features or components of the Order Limits (the 'landscape fabric', for example: landform; trees, woodland and hedgerows; open spaces, amenity spaces, public realm; watercourses, ponds or other waterbodies), and the key landscape characteristics which contribute to its distinctive character (the 'landscape character'). Additionally, the assessment considers landscape effects upon the green infrastructure network function of the Site, and Long-Distance Walking Routes / Public Rights of Way / National Cycle Network Routes.

3.3.2 A methodical consideration of each effect upon each identified landscape receptor is undertaken, in order to determine the significance of effects, in terms of:

a. Value and susceptibility to change (**sensitivity** of the landscape receptor); and

b. Size / scale, geographical influence, duration and reversibility (**magnitude** of the landscape effect).

Sensitivity of Landscape Receptors

3.3.3 The assessment of **landscape receptor sensitivity** combines judgements on the **value** attributed to the landscape receptor and the '**susceptibility to change**' of the receptor to the specific type of development proposed.

Value of Landscape Receptors

3.3.4 The value of landscape receptors is assessed, including landscape character and the individual landscape features which contribute to that character. Landscapes may be valued at community, local, national, or international levels. Existing landscape designations are taken as an indicator for landscape value, and the value of undesignated landscapes is also considered. At the more detailed scale of the LVIA study area, it may be found that the landscape value of a specific area may be different to that suggested by the broader formal designation.

3.3.5 **Table 7.1.1** sets out the relative importance and value of landscape designations and provides generic descriptions.

Table 7.1.1: Landscape Designations

Typical Designation and Importance (Value)	Description
World Heritage Site *International (Very High)*	Unique sites, features or areas of international importance with settings of very high quality, and Outstanding Universal Values according to UNESCO criteria.
National Park, National Landscape (formerly AONB), Conservation Area, curtilage of Grade I, II and II* Listed Buildings, Registered Parks and Gardens of Special Historic Interest, Scheduled Monuments *National (High)*	Sites, features or areas of national importance with settings of high quality.
Non- statutory regional landscape designations, such as Special Landscape Areas or Areas of Great Landscape Value; Long Distance Routes / Paths / Trails, National Cycle Network (NCN) Routes *Regional (High or Medium)*	Sites, features or areas of regional importance with intact character. Areas of landscape identified as having importance at the regional level.
Non-statutory district or local landscape designations, such as Areas of Local Landscape Importance; Designated Public Open Space, Tree Preservation Orders (TPO) *District (Medium)*	Sites, features, or areas of importance at the district / local authority level.
Areas with no designation, local Public Right of Way *Local (Medium or Low)*	General countryside area valued at the local level.

3.3.6 Other factors which may influence landscape value are set out in **Table 7.1.2**. This list is with reference to Table 1 within the Landscape Institutes **TGN 02/21: 'Assessing landscape value outside national designations'**. Where landscapes are not designated, and where no other local authority guidance on value is available, an assessment is made by reference to the criteria in **Table 7.1.1,** reviewed on a case-by-case basis. Landscapes may be judged to be of local authority or local community value on the basis of one or more of these factors and informed by the professional experience of the assessor. There may be circumstances where an undesignated landscape is judged to be of national value or equivalent to national value; conversely, there may be areas within designated landscapes which do not meet the designation criteria nor demonstrate the key characteristics or special qualities of the rest of the designated area. In such instances, the reasoning for value judgements is clearly set out.

Table 7.1.2: Factors which Influence Landscape Value

Attribute	Criteria
Landscape Quality / Condition	Intactness or physical condition of the landscape of both the individual features and overall landscape structure.
Distinctiveness / Sense of Place	Sense of identify related to aesthetic and perceptual qualities which create distinctiveness.
Rarity	Rarity of landscape character areas, types or features.
Representativeness	Particular characteristic/feature/element considered an important example.
Cultural Interest	The presence of archaeological, historic or cultural heritage interest which contributes positively to the landscape.
Natural Heritage	Landscape with clear evidence of ecological, geological, geomorphological or physiographic interest which contributes positively to the landscape
Recreation	Evidence that the landscape experience forms an important part of recreational activity, e.g. as established in guidebooks.
Function	Landscape which performs a clearly identifiable and valuable function, particularly in the healthy functioning of the landscape
Perceptual (scenic quality)	General appeal of the landscape to the senses (primarily visual).
Perceptual (wildness and tranquillity)	Landscape with a strong perceptual value notable wildness, remoteness, tranquillity and/or dark sky
Associations	Relevant associations with notable figures, such as writers or artists, or events in history that contribute to landscape value.

3.3.7 An assessment of value for each landscape receptor is made, informed by designations and based on an overview of the value criteria in **Table 7.1.2**. Where appropriate, key individual components of the landscape, including particular features, notable aesthetic and perceptual qualities, are considered in terms of importance in their own right, including whether or not they can realistically be replaced. They may also be judged on their contribution to the overall character and value of the wider landscape. For example, an intact landscape in good condition, where scenic quality, tranquillity, and/or cultural heritage features make a particular contribution to the landscape, or where there are important historical associations, is likely to be highly valued. Conversely, a degraded landscape in poor condition, with no scenic qualities or cultural interest is likely to be considered as low landscape value.

3.3.8 Example criteria descriptions for the continuum from low value to very high value are provided in **Table 7.1.3 Defining Landscape Value**.

Table 7.1.3: Defining Landscape Value

Level of value	Typical criteria descriptors
Very High	Designations and/or conservation interests: of international importance, i.e. UNESCO World Heritage Sites (WHS) which have been designated internationally due to their Outstanding Universal Importance, or a designated WHS Buffer.
High	An area possessing a notably distinctive sense of place and character, and / or attributes which make a fundamental contribution to the landscape or landscape character. Indicators: • Designations and/or conservation interests: of national/regional importance. Valued for its contribution to a national landscape designation and / or a designated cultural heritage asset. Important characteristics and features recognised as forming intrinsic part of nationally designated landscape or regionally designated non-statutory landscape, or which form a fundamental part of the regional green infrastructure network. • Key characteristics and features: features which are prevalent within the landscape and are fundamental to defining the distinct landscape character of an area. Highly valued for its landscape character or high value assigned in published landscape character assessment. • Distinctive individual or rare features and which contribute to a landscape character that has a notably strong sense of place. • Highly valued for its scenic quality. • Landscape in good condition: a distinct landscape structure with strong pattern and intact features. • Few detractors or uncharacteristic features present. • Valued for contribution to recreational activity and / or part of a long-distance walking route / path / trail. • Important cultural or historic associations.
Medium	An area with a moderately defined sense of place and character, and / or attributes which contribute to the landscape or landscape character. Indicators: • Designations and/or conservation interests: local, district, or regional importance (e.g. Special Landscape Areas), designated Public Open Spaces. • Key characteristics and features: features that are mostly intact and contribute to the overall character of an area and / or provide some scenic quality and cultural interest. • Landscape features protected by local policy such as Tree Protection Orders. • Landscape condition: landscape exhibits recognisable structure and characteristic patterns and in moderate condition. May be undesignated. • Some detracting features present.
Low	An area with a weak sense of place or poorly defined character, and / or attributes which make some contribution to the landscape or landscape character. Indicators: • An undesignated landscape. • Key characteristics and features: features that are uncharacteristic, disjointed or weak character and / or which detract from the landscape character of an area. • Landscape condition: degraded landscape structure with fragmented pattern and poor legibility of character. Typically, in poor condition. • Absence of distinctive individual or rare features. Landscape character that has a poor sense of place, few scenic qualities and / or little cultural interest. • Contains a high level of discordant or detracting features which are notable and have a strong influence on the perception and quality of the landscape.

Susceptibility of Landscape Receptors

3.3.9 The assessment of susceptibility of landscape receptors to the type of change arising from the Scheme, is based upon the criteria set out in **Table 7.1.4**.

Table 7.1.4: Landscape Receptor Susceptibility to Change

Susceptibility	Criteria
High	Limited ability to accommodate the Scheme without undue consequences for the maintenance of the baseline landscape / landscape features / landscape character and/or the achievement of landscape planning policies and strategies. Landscapes with irreplaceable features or character.
Medium	Some ability to accommodate the Scheme without undue consequences for the maintenance of the baseline landscape / landscape features / landscape character and/or the achievement of landscape planning policies and strategies.
Low	Substantial ability to accommodate the Scheme without undue consequences for the maintenance of the baseline landscape / landscape character, potential for substantial enhancement of the landscape feature / character, and/or the achievement of landscape planning policies and strategies.

Overall Sensitivity of Landscape Receptors

3.3.10 An overall assessment of sensitivity was made for each landscape receptor, based on a combined judgement of the above criteria, using the typical scales set out in **Table 7.1.5**.

Table 7.1.5: Indicative Landscape Receptor Sensitivity

Landscape Sensitivity	Description
Very High	Landscapes of very high international importance and rarity with no, or very limited, ability to accommodate the Scheme and / or which contains irreplaceable landscape features or character.
High	An area possessing a notably distinctive sense of place and character, and / or attributes which make a critical contribution to the landscape or landscape character, and which has limited ability to accommodate the Scheme and / or irreplaceable features or character.
Medium	An area with a moderately defined sense of place and character, and / or attributes which contribute to the landscape or landscape character, and with partial tolerance to change of the type proposed.
Low	An area with a weak sense of place or poorly defined character, and / or attributes which make some contribution to the landscape or landscape character, and with the ability to tolerate substantial change of the type proposed.

Magnitude of Landscape Effects

3.3.11 Development proposals can create beneficial and/or adverse effects upon the landscape. The evaluation of the architectural design and appearance of buildings is a subjective issue, and one which does not form part of the LVIA. The assessment of landscape and visual effects is based upon the scale, form and massing of Scheme

as set out in the parameter plans, and the consequential effects upon landscape, landscape character and people's views and visual amenity.

3.3.12 The magnitude of a landscape effect is assessed in terms of its size or scale, the geographical extent of the area influenced and its duration and degree of reversibility.

Size/Scale of Landscape Change

3.3.13 The size or scale of change upon a landscape receptor that is likely to be experienced as a result of the Scheme considers:

- The extent of existing landscape elements that will be lost or added, the proportion of the total extent that the loss or addition represents and the contribution of that element to the character of the landscape, or for designated areas the contribution of that element to the special qualities and/or purpose of the designation.
- The degree to which aesthetic or perceptual aspects of the landscape are altered either by removal of existing components of the landscape or by the addition of new ones.
- Whether the effect changes the key characteristics of the landscape, which are critical to its distinctive character.
- The scale of the receiving landscape and the landscape context to the Site.

3.3.14 The size / scale of the landscape effect is based upon professional judgement and is described as a scaled range, from Very Large, Large, Medium, Small, Very Small or No Change. For example, a large size / scale change may result from the complete removal or removal of a large proportion of a feature which is considered a key characteristic and is critical to the landscape's distinctive character. An example of a small size / scale change may result from the removal of a small or limited proportion of a feature.

Table 7.1.6: Indicative Size/Scale Criteria

Criteria Level	Size or Scale of Change to Landscape Receptor
Very Large	Fundamental change to the baseline feature or key characteristics; total loss or permanent alteration, with integrity of the landscape / landscape character compromised or greatly enhanced; and/or forming a dominant new feature in the landscape.
Large	Substantial change to the baseline feature or key characteristics; all, or a large proportion, of the feature is lost or permanently altered, with its integrity compromised or greatly enhanced; and/or forming a prominent new feature in the landscape.
Medium	A degree of change to baseline features or key characteristics which may affect overall integrity, cause a noticeable loss or alteration to the current landscape, or introduce a new visible element

Criteria Level	Size or Scale of Change to Landscape Receptor
Small	Limited change to the baseline feature or key characteristics, such that a small proportion of the feature is affected, with little effect on its integrity; and/or limited loss or alteration to the existing landscape / landscape character; and/or forming a new feature in the landscape.
Very Small	Very little discernible change to the baseline feature or key characteristics, resulting in very little loss or permanent alteration, with very little to no effect on its integrity; and/or forming a barely discernible new feature in the landscape.
No Change	The Scheme will not cause any change to the baseline feature or key characteristics.

Geographical Influence of Landscape Effect

3.3.15 The geographical extent over which a landscape effect would be experienced is considered separately as a slight modifier to the size / scale of effect.

3.3.16 The geographical extent is determined by the indicative criteria set out in **Table 7.1.7**.

Table 7.1.7: Geographical Extent Criteria

Criteria Level	Description of Geographical Influence
Wider landscape level	The effect extends across the wider landscape, across several landscape character areas / types, beyond the Site.
Landscape character type/ area level	The change would affect the entire a landscape type/character area as well as the Site itself.
Adjacent landscape level	The effect would be experienced within the Site and within the immediate setting or adjacent surroundings of the Site only, these being within only part of a landscape type / character area.
Site level	The effect would be experienced only within the Site itself.

Duration of Effect

3.3.17 The duration of a change is considered as a slight modifier to the size / scale of effect and is determined by the criteria set out in **Table 7.1.8**.

Table 7.1.8: Duration Criteria

Criteria Level	Description
Long-term	More than 30 years.
Medium-term	5 to 30 years.
Short-term	1 to 5 years.

Criteria Level	Description
Brief	Less than 1 year.

Reversibility of Effect

3.3.18 Reversibility is a judgement about the prospects and practicality of the effect being reversed, typically, in the lifetime of a generation. The typical categories of reversibility are set out in **Table 7.1.9** below:

Table 7.1.9: Reversibility Criteria

Criteria Level	Description
Permanent / irreversible	Change cannot be realistically reversed. e.g. change of land use from agricultural fields to urban housing development.
Partially reversible	Change is partially reversible, or moderately difficult to reverse but not impossible e.g. the restoration of a quarry to something similar to the pre-quarry landscape baseline, or introduction of elements which are representative of baseline features / characteristics.
Reversible	Change which will endure for a finite period of time and can be fully or largely reversed. e.g. wind turbines or solar panels, with a limited operational life and permission, and which have high potential for removal and reinstatement of the landscape at decommissioning; or construction activities which would be reversed once construction is complete e.g. installation of temporary hoardings around a construction site.

Overall Magnitude of Effect

3.3.19 Consideration of the size/scale, geographical influence, duration, and reversibility, as described above, is then combined with professional judgement to determine the likely magnitude of change that will occur to landscape receptors as a result of the Scheme. Indicative criteria descriptions are set out in **Table 7.1.10**.

Table 7.1.10: Indicative Criteria for Magnitude of Landscape Effect with Direction of Effect

Criteria Level	Description for Type of Effect	
Major	**Major Adverse** The proposals would result in a total change in the key characteristics of landscape character; would introduce elements totally uncharacteristic to the attributes of the receiving landscape such as its massing, scale, pattern and features; and/or would destroy or permanently degrade the integrity of landscape character; or is in total conflict with established planning objectives for	**Major Beneficial** The proposals would totally accord with the landscape features / characteristics, including scale, pattern, massing; or would restore, recreate or permanently enhance the condition or character of the landscape and enhance characteristic features through the use of local materials or planting; and/or deliver established planning objectives for landscape and

Criteria Level	Description for Type of Effect	
	landscape and visual elements of enhancement of the landscape; and/or result in a substantial or total loss, or alteration of key features / characteristics.	visual elements of enhancement of the landscape.
Moderate	**Moderate Adverse** The proposals would result in a partial change in the key characteristics of landscape character; would introduce elements uncharacteristic to, out of scale or at odds with the attributes of the receiving landscape, such as its massing, scale, pattern and features; and/or would result in partial loss, or alteration of key features / characteristics; or be in conflict with established planning objectives for landscape and visual elements of enhancement of the landscape.	**Moderate Beneficial** The proposals would achieve a good fit with the landscape features / characteristics, such as massing, scale, and pattern; or would noticeably improve the condition or character of the landscape and enhance characteristic features through the use of local materials; and/or support established planning objectives for landscape and visual elements of enhancement of the landscape.
Slight	**Slight Adverse** The proposals would result in little change in the key characteristics of landscape character and would introduce elements that do not quite fit with the attributes of the receiving landscape such as its massing, scale, pattern and features; and/or would result in a minor loss or alteration of features / characteristics; and/or contribute to degrading the landscape character; or would not fit with established planning objectives for landscape and visual elements of maintaining the landscape.	**Slight Beneficial** The proposals would achieve a degree of fit with the landscape features / characteristics and provide some enhancement to the condition or character of the landscape.
Negligible	**Negligible Adverse** The proposals would result in a just discernible change to landscape features / characteristics, which would not be quite in keeping with the existing landscape and landscape character.	**Negligible Beneficial** The proposals would result in a just discernible improvement to the landscape features / characteristics.
No Change	The proposals would not cause any change to the landscape features / characteristics.	

3.4 Assessment of Effects on Views and Visual Amenity

3.4.1 This assesses how the Scheme will affect the views available to people and their visual amenity.

3.4.2 Visual receptors always comprise people; and include users of Public Rights of Way (PRoW), public open spaces, public realm or other outdoor recreational facilities, and

also travellers in vehicles who may be visiting, living or working within the study area, and their views at particular places.

3.4.3 The following terminology is used to describe the approximate distance between the representative viewpoint and the Scheme:

i. Local or short distance or close-range view: under 0.5km;

ii. Medium distance or mid-range view: 0.5km – 2km;

iii. Long-range or long-distance view: beyond 2km.

3.4.4 The type of view, and the number of viewers likely to experience the view, is described in the following terms:

i. Glimpsed (i.e. seen in passing) / Filtered / Oblique / Framed / Open Views; and

ii. Few / Moderate / Many Viewers.

3.4.5 A methodical consideration of each visual effect upon each identified visual receptor is undertaken, in order to determine the significance of effects, in terms of:

i. Value and susceptibility to change (sensitivity of the visual receptor, or viewer); and

ii. Size / scale, geographical influence, composition, duration and reversibility (magnitude of the visual effect).

3.4.6 LVIA relates to public amenity and therefore the value of views to the public. Therefore, no private viewpoints are assessed. However, where appropriate, representative views have been selected from publicly accessible locations within or on the edge of main settlements, or to represent views that would be experienced from property groupings or other buildings likely to be significantly affected by the Scheme.

3.4.7 A Residential Visual Amenity Assessment (RVAA) has been undertaken to support the Application. The Landscape and Visual Impact Assessment (LVIA) has been used to inform the RVAA included within **Appendix 7.8: Residential Visual Amenity [EN0110014/APP/6.3.7.8]**, and this builds upon the principles of LVIA but focuses on private visual amenity as experienced from individual residential properties. Further information on the methodology for this RVAA is included in **Appendix 7.8.**

Sensitivity of Visual Receptors

3.4.8 The assessment of visual receptor sensitivity combines judgements on the value attributed to the visual receptor and the 'susceptibility to change' of the receptor to the specific type of development proposed.

Visual Receptors Value

3.4.9 The value assigned to views has regard to several factors, including:

i. Recognition through planning or heritage assets; and

ii. The popularity of the viewpoint, its appearance in guidebooks, literature or art, on tourist maps, and the facilities provided to enable enjoyment of the view.

3.4.10 The criteria for the assessment of the value of views is summarised **Table 7.1.11**; note that these are provided for guidance and are not intended to be absolute.

Table 7.1.11: Value of Views Criteria

Criteria Level	Description
Very High	Views with very high scenic value or where the view forms an important part of the experience within landscapes of international importance i.e. UNESCO World Heritage Sites, or for people's views from within a designated WHS Buffer.
High	Views with high scenic value within landscapes of national or regional importance and statutory landscape designations including, but not limited to, National Parks, Areas of Outstanding Natural Beauty etc; and/or highly popular visitor attractions where the view forms an important part of the experience and could be expected to be regularly experienced; and/or views from landscapes with important cultural associations / historic estates with specific views or designed focussed views; and/or the view is identified as a published Key View / vista / view cone in statutory documents, planning policies or supplementary planning documents.
Medium	Views with moderate scenic value within undesignated landscapes or those from landscapes of regional or district importance or moderately popular visitor attractions or well-used open spaces where the view forms part of the experience, or with local cultural associations, and / or a local key view / vista / view cone identified by the LPA through the scoping process, and which is not defined within published guidance.
Low	Views with unremarkable scenic value within undesignated landscape; or with partly degraded visual quality and/or containing visual detractors; or views that are not particularly popular; and with minimal or no cultural associations.

Susceptibility of Visual Receptors

3.4.11 The susceptibility of people to changes in views is a function of:

- The occupation or activity of the viewer at a given location; and
- The extent, therefore, to which a person's attention or interest may be focussed on a particular view and the visual amenity experienced.

3.4.12 For the purposes of the visual impact assessment, visual receptors' susceptibility to change is based upon the criteria in **Table 7.1.12**.

Table 7.1.12: Criteria for Visual Receptor Susceptibility to Change

Criteria Level	Description
High	• Residents at home; • People engaged in outdoor recreation, including visitors to areas of open space (e.g. country parks) or users of Long-Distance Trails / Routes or Public Rights of Way, whose attention is likely to be focussed on the visual experience of the landscape and on particular views; • Visitors to heritage assets, landmarks or other attractions where views of the surroundings are an important part of the experience; • Communities where the quality of the views contribute to the landscape setting enjoyed by residents; and • Travellers on scenic or tourist routes, including cyclists on national cycle routes designed to provide an attractive experience.
Medium	• Travellers on general road, rail or other transport routes, where the view is moderately important to the quality of the journey and/or the speed of travel is moderate or low speed; • Visitors to heritage assets or other attractions where views of the surroundings are a minor contribution to experience and enjoyment; • People using local parks, open spaces, public realm, or walking on streets or local public rights of way, with moderate interest in their visual environment.
Low	• People engaged in active outdoor sport or recreation, which does not involve appreciation of, or focus upon views; • People at their place of work or shopping, where the landscape setting is not important to the experience or quality of working life and/or the surroundings are irrelevant to the enjoyment of the activity; and • Travellers, where the view is fleeting and incidental to the journey, e.g. high-speed roads / trains.

Overall Sensitivity of Landscape Receptors

3.4.13 An overall assessment of sensitivity is made for each visual receptor, based on professional judgement and informed by the combination of the identified value and susceptibility criteria. Typically, a worst-case approach is taken, i.e. a value of High combined with a susceptibility of Medium would result in an overall sensitivity of High. Professional judgments may adjust this approach, when there are reasons associated with the value of the view that lead to a reduction or increase in overall sensitivity. In such instances, the rational for the professional judgment which has been made is provided in the baseline description.

3.4.14 The indicative criteria used for the overall assessment of sensitivity are set out in **Table 7.1.13**. Note that these are provided for guidance and are not intended to be absolute.

Table 7.1.13: Indicative Criteria for Visual Receptor Sensitivity

Criteria Level	Description
Very High	Views with a very high scenic value, within landscapes of international importance i.e. UNESCO World Heritage Sites or designated WHS buffers and

Criteria Level	Description
	experienced by people whose attention is highly focused on the visual experience of the landscape.
High	Typically views with a high scenic value within landscapes of national or regional importance; and/or people using scenic routes or national trails / walking routes, or using national cycle routes designed to be an attractive experience; and/or highly popular visitor attractions where the view forms an important part of the experience; and/or views from landscapes with important cultural associations / historic estates with specific views or designed focussed views; and/or the view is identified as a published Key View / vista / view cone in statutory documents, planning policies or supplementary planning documents; and/or forms part of the landscape setting to communities. The view is experienced by people whose attention is focused on the landscape and/or on particular views.
Medium	Typically views of a moderate scenic value within landscapes of regional / district importance, or views from moderately popular visitor attractions or well-used open spaces; the view forms part of the experience to a moderate extent; or has been identified by the local authority as a locally important view through the scoping process, but otherwise is not defined within publications. The view is experienced by travellers on general roads / railways or other transport routes, visitors to heritage assets or other attractions where views of the surroundings are a minor contribution to experience and enjoyment, people using local parks, open spaces, public realm areas or streets or local Public Rights of Way and other people with moderate interest in their surrounding visual environment.
Low	Typically views of unremarkable scenic value, with partly degraded visual quality and presence of visual detractors. Views experienced by people with limited appreciation of, or focus upon, views of their surroundings, and/or where the visual setting is not important to the experience or quality of activity, and/or where the view is fleeting and incidental.

Magnitude of Visual Effects

3.4.15 The magnitude of a visual effect is assessed in terms of its size or scale, the geographical extent of the area influenced and its duration and degree of reversibility. These criteria are combined with professional judgement to determine the likely magnitude of change that will occur to visual receptors as a result of the Scheme.

Size/Scale of Visual Change

3.4.16 The size or scale of change in the view relates to the degree of contrast to, or integration with, the visual composition, which is likely to result from the Scheme; and is influenced by the relative time over which a view is experienced and whether it is a full, partial, or glimpsed view.

3.4.17 The judgement of size or scale of visual change in the view considers:

- The scale of the change in the view with respect to the loss or addition of features in the view and changes in the view composition and depth of the view, including the proportion of the view occupied by the Scheme.

- The degree of contrast or integration of any new elements or changes in the landscape with the existing or remaining landscape features and characteristics in terms of form, scale and mass, line, hight, colour and texture seen in the view.
- The nature of the view of the Scheme, including the relative amount of time over which it will be experienced and whether views will be full, partial, glimpsed, or screened.

3.4.18 The size / scale of the visual effect is based upon professional judgement and is described as a scaled range, from Very Large, Large, Medium, Small, Very Small, to No Change.

3.4.19 The indicative criteria set out in **Table 7.1.14** is used to inform the judgement of the size / scale of visual effects, based on the degree of change to the view or composition.

Table 7.1.14: Indicative Size/Scale of Change

Criteria Level	Description
Very Large	Fundamental to complete change to the view. The proposals would be seen as the most dominant feature(s) in the view, and completely change the composition of the view, be seen across the entire view and/or create a high level of visual contrast with other features in the view, and/or cause fundamental change that degrades or enhances the view. The proposals would form the primary focus of the view. Typically, the view would be experienced from within the Order Limits or very close to the Site, and the Scheme would occupy the foreground view
Large	Substantial change to the view. The proposals would cause an overriding or complete change or contrast to most of the view / view composition, which would affect a large proportion or portion of the view, resulting from the loss of features or addition of new elements in the view; and will substantially alter (degrade or enhance) the appreciation or composition of the view. The Scheme would typically lie at the centre of the view, forming the focus of the view. Typically, the view would be experienced from close to the Site.
Medium	The proposals would cause clearly obvious change or contrast to the composition of the view; and/or change to only a proportion of the view / view composition, being a conspicuous new feature or features in the view, that would partially contrast or be in harmony with other features in the view. Typically, the Scheme would be subordinate to existing features in the view composition, it would likely be seen in the centre of the view or as part of an oblique view and would occupy the middle ground of the view or form only part of the foreground of the view.
Small	Limited change to the view. The proposals would occupy a small portion of the view and cause a visible change or contrast to the view, but the balance and composition of the view would only slightly alter from baseline view. The visual change would partially integrate with the surroundings in the view, and/or form a minor new feature in the view. Typically, the visual change would be experienced as little change to the baseline view, and/or as a filtered view or glimpsed view / in a narrow angle of view within the overall view composition; and/or be seen at an oblique angle. Typically, the Scheme would be seen at some distance, occupying the mid-ground to background of the view.

Criteria Level	Description
Very Small	Very little change to the view. The proposals would cause a barely perceptible visual change or contrast to the view, which would not affect the baseline view composition. Typically, the Scheme would be experienced as a very filtered view through vegetation or at a considerable distance, occupying the background / long- or far-distance in the view. would affect a very small part of the overall view, and/or lie at a very oblique angle.
No Change	The proposals would fully maintain the existing view composition and would not cause any changes in the view.

Geographical Influence of Change to Views and Orientation/Length of Views

3.4.20 The geographical influence of change to views determines how far the visual effect would be experienced; this is distinct to the size/scale of visual effect. The geographical extent of the visual effect arising from the Scheme varies depending on the location of the visual receptor. Consideration is given to the orientation of the view, in relation to the main activity of the visual receptor and the focus of the view; the distance between the visual receptor and the Scheme; and the extent of the area over which visual change would be experienced. Geographical extent is a slight modifier to the size/scale of effect and is determined according to the indicative criteria set out in **Table 7.1.15**.

Table 7.1.15: Indicative Geographic Extent Criteria

Criteria Level	Description
Widespread	The visual change would occur to visual receptors over a widespread area or lengths of routes.
Large	The visual change would occur to visual receptors over a large area or large lengths of routes.
Medium	Visual change would occur to a moderate geographical area or lengths of routes.
Small	Visual change would be evident over a small geographical area or short lengths of routes.
Very Small	Visual change would occur to visual receptors over a very small area or very short lengths of routes.

Duration and Reversibility

3.4.21 Duration and reversibility are assessed using the same criteria as were used for landscape effects – see **Table 7.1.8** and **Table 7.1.9** above.

Overall Magnitude of Effect

3.4.22 Consideration of the size/scale, geographical influence, duration and reversibility, as described above, is combined with professional judgement to determine the likely

magnitude of change that will occur to visual receptors. Indicative criteria descriptions are set out in **Table 7.1.16**.

Table 7.1.16 Indicative Criteria for Magnitude and Type of Visual Effect

Criteria Level	Description for Type of Effect
Major	The proposals would cause a **dominant or complete change or contrast** to the view, resulting from the **loss or addition** of features in the view and **substantially alter** (**degrade or enhance**) the appreciation of the view or composition of the view.
Moderate	The proposals would cause a **clearly noticeable change or contrast** to the view, which would have **some effect** on the composition, resulting from the **loss or addition** of features in the view and would **moderately alter** (**degrade or enhance**) the appreciation of the view or the composition of the view.
Slight	The proposals would cause a **perceptible change or contrast** to the view, but which would only **partially change** the composition of the view or the appreciation of the view. There may only be a partial view of the Scheme in the view.
Negligible	The proposals would cause a **barely perceptible change or contrast** to the view, which would **barely alter** the appreciation of the view or the composition of the view.
No Change	The proposals would **maintain** the existing view entirely and cause **no change** to that view.

3.5 Methodology for the Assessment of Cumulative Landscape and Visual Effects

3.5.1 Definition of cumulative landscape and visual effects was first set out in the 2002 edition of the Guidelines for Landscape and Visual Impact Assessment, and since then has been further refined, in terms of windfarm development, by guidance produced in Scotland, which is used more widely than windfarms, and not only in Scotland. The current definitions, as set out in 'Assessing the Cumulative Impact of Onshore Wind Energy Developments', Scottish Natural Heritage (SNH), 2012, are referred to in paragraph 7.3 of **GLVIA3** and for the purpose of the LVIA are interpreted and defined as follows:

- **Cumulative effects** - 'the additional changes caused by a Scheme in conjunction with other similar developments or as the combined effect of a set of developments, taken together'.
- **Cumulative landscape effects** - effects that 'can impact on either the physical fabric or character of the landscape, or any special values attached to it'.
- **Cumulative visual effects** - effects 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'.

3.5.2 In accordance with the emphasis in EIA, the cumulative assessment is required to focus on cumulative landscape and visual effects which are **likely to be significant**, rather than providing a comprehensive listing of every conceivable cumulative landscape and visual effect that might occur. The approach must be reasonable and proportional to the Scheme.

3.5.3 Paragraph 7.18 of GLVIA3 refers to different focuses of a cumulative effects assessment: '…the **additional** effects of the main project under consideration, or on the **combined** effects of all the past, present and future proposals together with the new project.' GLVIA3 recognises some of the limitations of assessing combined cumulative effects, noting that '…the assessor will not have assessed the other schemes and cannot make a fully informed judgement.'

3.5.4 The cumulative landscape and visual effects assessment (CLVEA) in the LVIA is informed by reference to the baseline photographs and any visualisations which have been prepared for the Scheme, as well as the LVIA assessor's knowledge from the visual survey.

3.5.5 The CLVEA considers the effects of the Scheme in terms of:

- an extension or intensification of the landscape and/or visual effects of other similar developments.
- 'filling' an area over time with similar development, such that the landscape resource, views and visual amenity are judged to be substantially altered.
- incremental change arising from the proposal, because of successive individual developments.

3.5.6 The CLVEA also seeks to provide understanding of cumulative landscape and visual effects in terms of how the Scheme would both **interact** and **combine** with effects of the committed developments which the ES considers. Taking a worst case approach the CLVEA considers **combined cumulative effects**. These are defined as follows.

3.5.7 Combined cumulative effects are those which result from the **combination** of the Scheme and committed developments. Where appropriate, these may be further identified as **additive effects** (a total effect produced by the Scheme and committed developments in combination; being the sum of the parts or the overall consequence. For example, in simplest terms, Project X results in 1ha of woodland removed, Project Y results in 2ha of woodland removed, resulting in a combined additive cumulative effect of 3ha of woodland removed); or **synergistic effects** (where the combined effect is greater than the sum of the separate effects of the cumulative developments, and which would not have occurred from the Scheme or any of the committed developments in isolation. For example, the losses of woodland from Project X and Project Y combine to have a new effect on a species that is not affected by the loss of woodland from either Project X or Project Y in isolation). Where combined effects are assessed, the assessment is made against the 2025 baseline year (i.e. all developments, combined, assessed against baseline).

3.5.8 Incremental cumulative effects are the **additional** effects of the Scheme in the context of the committed development taken into account. So, the assessment essentially looks at the contribution of the Scheme to the effect of the committed development. For example, the incremental cumulative effect of Project X is 0.25ha of new woodland which is likely to be an effect which is not significant when considered in context of Project Y which results in 9ha of new woodland. Whilst the combined cumulative effects (see below) would be 9.25ha of new woodland and therefore potentially quite significant, the incremental cumulative effect would not.

Limitations to the Cumulative Landscape and Visual Effects Assessment

3.5.9 It is acknowledged that there will be limitations to the assessment of combined cumulative effects in the CLVEA. Typical limitations include:

- Limited information that is available in the public domain and/or to the assessor. In some cases, committed development proposals or permissions may not be accompanied by a LVIA due to their scale of development or local authority requirements.
- The Applicant did not prepare the LVIAs for the committed developments. A different assessor will have a different professional judgement of landscape and visual effects and use different assessment methodologies in LVIAs.
- Different baseline dates between the LVIAs for the Scheme and the committed developments.
- Assessments of different landscape and visual receptors, that are not comparable; and
- The absence of verified views for the committed developments.

3.6 Landscape and Visual Mitigation Measures

3.6.1 Primary mitigation measures are defined as those which have been developed through the iterative design process, and which have become integrated or embedded into the Scheme.

3.6.2 Standard construction and operational management practices are defined as those which would be required to be adopted for the avoidance of, and reduction of, adverse environmental effects as part of the standard construction process, such as the implementation of tree protection fencing around retained trees. These standard practices for construction are therefore not considered to form part of the embedded mitigation; and instead, are included in the **Outline Construction and Environmental Management Plan (CEMP) [EN0110014APP/7.1].**

3.6.3 Embedded (primary) mitigation measures include measures defined in the **Design Approach Document [EN0110014/APP/7.17]** which sets out project level design principles to facilitate the practical application of IGP's Corporate Level Design Principles at the project level.

3.6.4 The project principles, detailed within section 3.6 of the **Design Approach Document [EN0110014/APP/7.17]**, were developed during early engagement with local stakeholders, communities and technical specialists, as part of the consultation and feedback received during statutory consultation.

3.6.5 Furthermore, for the purposes of the LVIA the measures which are outlined the **Outline Landscape and Ecology Management Plan (OLEMP) [EN0110014/APP/7.4]** are considered primary mitigation. The OLEMP sets the framework for the planting, management and monitoring of landscaping and ecological mitigation and enhancement measures. The **OLEMP [EN0110014/APP/7.4]** includes Appendix A (Figure 1 Hedgerow Removals Plan), and Appendix B (Figure 2 Green Infrastructure Strategy). Appendix B details the landscape and ecological measures included within the Scheme, including proposed new features and measure for enhancement of existing features.

3.6.6 Secondary, or further mitigation and enhancement measures are those which would be proposed in order to address adverse effects which remain after the embedded (primary) mitigation has been incorporated into the Scheme.

3.7 Assessment of Level of Landscape and Visual Effects

3.7.1 The level of significance of landscape and visual effects vary with the location, landscape context and type of Scheme.

3.7.2 The level of significance of landscape and visual effects is a matter of professional judgement, which is informed by the combination of the receptor sensitivity and the magnitude of effects, as set out in **Table 7.1.17**.

Table 7.1.17: Levels of Significance of Landscape and Visual Effects

		Magnitude of Effect				
		Major Effect	**Moderate Effect**	**Slight Effect**	**Negligible Effect**	**No Change**
Receptor Sensitivity	***Very High Sensitivity****	***Substantial***	***Substantial*** *or* ***Major to Substantial***	***Major***	***Moderate***	No Change
	High Sensitivity	**Substantial** or **Major to Substantial**	**Major**	**Moderate**	Minor	No Change
	Medium Sensitivity	**Major**	**Moderate**	Minor	Negligible	No Change
	Low Sensitivity	**Moderate**	Minor	Minor	Negligible	No Change

**A 'Very High' level of Sensitivity is only applicable to international designated landscapes or views from those international designated landscapes, i.e. World Heritage Sites that meet UNESCO criteria.*

3.7.3 The above table has regard to guidance in the Guidelines for Landscape and Visual Impact Assessment, (3rd Edition, 2013), at paragraph 5.56, page 92 (significance of landscape effects) and paragraph 6.44, page 116 (significance of visual effects).

3.7.4 A substantial level of significance of effect is assigned where a landscape or visual effect is considered to represent a key factor in the decision-making process. Such effects are generally, but not exclusively, associated with altering the integrity of sites and features of international, national, or regional importance. However, a change at a district scale of site or feature may also enter this category, though that is subject to professional judgement and will be proportional to the type and extent of development that is being assessed. Where there is a combination of a receptor's high sensitivity and a major effect, professional judgement may be applied to determine a 'major to substantial level of significance of effect, where it is considered that either the effect would not represent a key factor in the decision-making process, or where the development would have limited effects such that it would not alter the integrity of sites and features of international, national or regional importance.

3.7.5 The judgements of significance are not judgements of acceptability, because they do not consider the policy context, which is a matter for decision-makers.

4 Technical Methodologies

4.1 Zone of Theoretical Visibility

4.1.1 A ZTV analysis is a computer-generated tool to identify the 'theoretical' extent of visibility for the Scheme.

4.1.2 The ZTV shows theoretical visibility only and so it is important to fully understand that its accuracy is limited to the digital information that it has been based upon and the algorithm used in its calculation. It is stressed that the ZTV remains only as a tool in the landscape and visual impact assessment of the Scheme. A ZTV alone cannot indicate the potential visual impacts, nor show the likely significance of impacts that the Scheme will have.

4.1.3 However, it does guide an appreciation of the potential and maximum visibility of the Scheme, that can then be used to focus the visual assessment process on those areas affected and avoids those areas which will not be affected.

4.1.4 A series of ZTV analysis was undertaken, based upon the final development parameters as defined on shown geographically on the **Works Plans [EN0110014/APP/2.4]** and the height parameters set out in **ES Volume I, Chapter 4 – The Scheme [EN0110014/APP/6.1.4**].

4.1.5 This was generated by selecting a number of points to simulate the Scheme footprint, and the following heights:

- Solar array: 4.5m
- BESS: 4.5m considering the water tanks (acoustic fences are 4m, BESS units are 3.5m);
- National Grid Substation: 15m;
- 400kV substation: 13m; and
- 132kV substations: 7m

4.1.6 A comparative ZTV analysis has also been undertaken for the 400kv overhead line (OHL) diversions required for the connection to the proposed National Grid Substation. The analysis compares the visibility of the existing OHL pylons (@ 53m) against the proposed relocated and new pylons (assuming the typical 53m as a worst-case height for the pylons and a taller pylon for 4YM150B @ 61m height).

4.1.7 The ZTV calculation is performed using ESRI ArcGIS Pro 3.0.2, under the Viewshed Spatial Analyst tool

4.1.8 The ZTV computer software processes landform data and other selected features influencing the extent of visibility, for example, woodland and settlements, in order to identify the theoretical extent of the area from which the Scheme is likely to be visible.

4.1.9 The analysis undertaken includes:

- Digital Terrain Model (DTM) ZTV which illustrates the worst-case scenario, in that it will only take into account of the landform, i.e., it is solely the terrain surface, or bare earth model.
- Digital Surface Model (DSM) ZTV, which includes heights of objects, such as principal areas of woodland and settlements as well as the terrain surface.

4.1.10 Both a DTM and DSM analysis have been prepared, but the use of a DSM analysis allows for a more pragmatic approach to identify where the potential visibility of the Scheme will occur, due to the screening effect from both the buildings and vegetation contained within the DSM. This ZTV is considered a realistic worst case, however it is important to note that features, such as hedgerows or street trees, which are generally not included are likely to provide additional filtering of views.

4.1.11 The DSM analysis has also been presented as graded visibility. This defines the percentage of analysis points for each ZTV analysis which would be visible within the area of theoretical visibility and is helpful aid in determining how much of the Order Limits could be visible from any one location within the landscape. This analysis is however limited by the points considered and how the analysis has been grouped.

4.1.12 The viewer height of the ZTV was set at 1.6m above ground level. This is higher than the camera height recommended for photograph visualisations and compensates for potential inaccuracies in digital terrain data and to ensure that the 'worst case' is represented.

Limitations and Assumptions

- The ZTV analysis remains only as a tool in the landscape and visual impact assessment of the Scheme. A ZTV alone cannot indicate the potential visual impacts, nor show the likely significance of impacts that the Scheme will have.
- DTM ZTV has been based on EA 2021/22 DTM LIDAR data (1 metre resolution).
- DSM has been based on EA 2021/22 DSM LIDAR data (1 metre resolution).
- The ZTV analysis has been clipped to a **5km** area for the DTM analysis and a **3km** area for the DSM analysis.

4.2 Baseline Views Photography

4.2.1 The requirements for the collection of baseline views photography and presentation of photography are described within the Landscape Institute Visual Representation of Development Proposals Technical Guidance Note 06/19 (TGN 06/19) (Landscape Institute, 2019), and this has been considered.

4.2.2 A site walkover was initially undertaken in summer 2024, with baseline winter photography captured during January and February 2025. Baseline summer

photography was collected in June and July 2025, with additional winter surveys undertaken in November 2025.

Equipment

4.2.3 High-resolution digital photographs were captured using a Canon EOS 6D Mark II Full Frame Digital SLR, using a Canon EF 50mm f/1.8 STM which is a fixed focal-length lens. Aside from the images captured from the ferry as it approached the island, the camera was fixed to a tripod (typically 1.65m above the ground), mounted on a Vanguard Alta Pro 263AP and utilized a Manfrotto MA 454 Micro Positioning Plate to remove parallax errors. Once stitched and cropped appropriately this method provides a more accurate method of producing panoramas.

Methodology

4.2.4 Preliminary view locations to represent visual receptors were agreed with the local planning authority (LPA) (as detailed in **ES Volume 1, Chapter 7 – Landscape and Visual [EN0110014/APP/6.1.7**] and Section 2.3 of this Appendix) prior to the data capture, and this was refined during the visual survey of the Order Limits and surrounding area.

4.2.5 At each location, the centre of the camera was positioned at a height of ~1.6m above the ground to simulate average viewing height. Each photograph was taken with a lens that provides an approximate 40-degree field of view in landscape format. At each location the desired view angle was captured. Photography was captured on site with a 50% overlap between each individual shot to reduce distortion with image blending.

Presentation

4.2.6 All photography has been presented to showcase a 90° Horizontal Field of View (HFoV) x ~27° Vertical Field of View (VFoV) on an A1 sheet with an image size of 820mm x 250mm, in cylindrical projection. This is further supported by the inclusion of a context photograph which shows the wider view extents at the locations

4.2.7 Baseline photography representing people's views is presented on a series of photosheets within **Appendix 7.5: Photosheets [EN0110014/APP/6.3.7.5]**.. Each photosheet labels key existing features visible in the view along the top of the image alongside the approximate extents of the Order Limits and Scheme elements to aid interpretation by the reader.

4.3 Visualisations

4.3.1 A number of visualisations have been prepared by Stantec to support the Application. Visualisations have been prepared for a range of locations as discussed with the South Norfolk District Council and set out in **Table 7.1.18** below. Visualisations have utilised baseline imagery from **Appendix 7.5: Photosheets [EN0110014/APP/6.3.7.5]**, which present winter and summer views.

4.3.2 The requirements for visualisations are included within Landscape Institute Visual Representation of Development Proposals Technical Guidance Note 06/19 (TGN 06/19) (Landscape Institute, 2019), and this has been considered.

4.3.3 For this project visualisations have been produced as follows:

- Photowires (LI TGN 06/19 Type 3) to demonstrates the size, scale and degree of visibility of the proposals in the views. These outputs utilise winter baseline photography (to demonstrate visibility when vegetation is typically out of leaf). The visualisations will set out the maximum parameter of the Scheme in the view.

- Photomontages Year 1 (LI TGN 06/19 Type 3) to demonstrate the size, scale, degree of visibility and appearance of the Scheme in views. These are photo realistic outputs based on winter baseline photography to showcase the scheme at opening once the Scheme is fully built out, prior to landscape mitigation measures establishing. The photorealistic outputs are based on the illustrative concept layouts (which align with the maximum parameters) and provide a illustrative representation the Schemes appearance. In addition to the photorealistic elements the maximum parameter of the Scheme (represented by a single-coloured outline) is also set out in the view.

- Photomontages Year 15 (LI TGN 06/19 Type 3) to demonstrate the size, scale, degree of visibility and appearance of the Scheme in views. These are photo realistic outputs based on the summer baseline photography to showcase the scheme 15 years following opening, and representative of the Scheme one proposed landscape mitigation measures (as shown on **Figure 7.11 Landscape Mitigation Figure [EN0110014/APP/6.2.7.11]**) have established and are likely to be providing the function for which they are included (and therefore representative of a mitigated scenario). The photorealistic outputs will be based on the illustrative concept layouts which align with the maximum parameters and therefore will provide an illustrative representation of how the Scheme could appear.

4.3.4 Visualisations are presented within Appendix 7.6: Visualisations [EN0110014/APP/6.3.7.6].

4.3.5 The selection of visualisation locations has been undertaken on the following basis:

- A proportionate selection of the view locations we have previously agreed with South Norfolk District Council.

- Representative of the range of visual receptors present, and representative of those within the defined study area, focusing on short to mid-range views.

- To cover the range of Project elements likely visible (based on the emerging design parameters).

- Views selected where the Project will be visible (as worst-case locations); and

- To cover requests raised in Scoping responses (where appropriate).

4.3.6 **Table 7.1.18** provides a summary of the visualisations, the type and location, produced for the Project.

Table 7.1.18: Table of Visualisations

VL number	Visualisation Type	View Extent Presented / Direction	Distance from Order Limits (nearest element)	Reason for Selection	Representative Visual Receptors	Likely elements within view
BESS / 400kv Substation						
VL1 (a / b / c)	Photomontage Year 1 and Year 15	270°	Adjacent to Site 1 solar (NE), BESS / 400kv Sub (SE)	PRoW Great Moulton RB19 / Hundred Lane	Recreational users	Site 1 solar, BESS / 400kv Sub, NG Substation
VL5	Existing Photowire updated	180° (W)	Adjacent to BESS	PRoW Tivetshall St. Margaret FP4	Recreational users	NG Substation, BESS
VL9	Photomontage Year 1 and Year 15	180° (N)	80m south of BESS	Residential Property / Station Road	Residential, Road users	NG Substation, BESS
National Grid (NG) Substation / Site 1						
VL2 (a / b)	Photomontage Year 1 and Year 15	180° (W, E)	Adjacent to Site 1	PRoW Great Moulton FP14, FP15, and RB18	Recreational users	Site 1 solar, NG Substation
VL3	Photomontage Year 1 and Year 15	~270° (W, S, E)	100m north of Site 1	SE of Great Moulton settlement	Residents, Road users	Site 1
VL4	Photowire	~270° (W, S, E)	500m east of Site 1 and 100m north of sub-Site 2B	PRoW Great Moulton FP13	Recreational users	Site 1, Site 2
Site 2						
VL1	Photowire	180° (S)	400m north of sub-Site 2C (and 1km northeast of Site 1)	Wacton Common and PRoW network at this location	Recreational users	Site 2
VL2	Photowire	270° (E, S, W)	100m sub-Site2B, 270m sub-Site 2C	Junction of PRoW Wacton RB31 / FP43 and Great Moulton FP12	Recreational users	Site 2, CRC, Site 1
VL4	Photomontage Year 1 and Year 15	360°	Internal to sub-Site 2B	PRoW Tivetshall St Margaret RB6	Recreational users	Site 2, CRC
VL5	Photowire	180° (NW)	Adjacent to sub-Site 2A	PRoW Pulham Market FP6	Residents, Recreational and Road users	Site 2
VL6(b)	Photomontage Year 1 and Year 15	180° (E)	Adjacent to sub-Site 2A	PRoW Tivetshall St Margaret BR9	Recreational users	Site 2
Site 3						
VL2	Photowire	90° (E)	300m west of Site 3	PRoW Shelton FP7	Recreational users	Site 3

VL number	Visualisation Type	View Extent Presented / Direction	Distance from Order Limits (nearest element)	Reason for Selection	Representative Visual Receptors	Likely elements within view
VL4	Photomontage Year 1 and Year 15	270° (NE, SE, SW)	Adjacent to Site 3	PRoW Hempnall FP26 / FP28	Recreational users	Site 3
VL8	Photowire	180° (W)	Adjacent to Site 3	Spring Lane, PRoW Hempnall FP24	Road users, Recreational users	Site 3
Site 4						
VL2	Photomontage Year 1 and Year 15	180° (NW)	Adjacent to sub-Site 4B	PRoW Long Stratton FP3 / Church Lane	Road users, Recreational users	Site 4, CRC
VL4	Photowire	180° (NE)	100m south of sub-Site 4A	Brand's Lane east of Shrublands	Residents, Road users	Site 4
VL6	Photowire	180° (W)	200m east of sub-Site 4B	Brick Kiln Lane near Grey Gables / PRoW Long Stratton FP4	Residents, Road and Recreational users	Site 4, CRC
VL7	Photomontage Year 1 and Year 15	180° (W)	Internal within sub-Site 4B	Junction of PRoW Long Stratton FP3/FP4	Recreational users	Site 4
VL9	Photowire	180° (N)	Adjacent to sub-Site 4B	PRoW Lond Stratton FP6, Outside of St Michael Church	Recreational users, visitors of St Michael Church	Site 4
VL11	Photowire	180° (N)	200m south of Site 4	A140 Norwich Road, near the Cedars	Road users, Residents	Site 4
Site 5						
VL4	Photomontage Year 1 and Year 15	360°	Internal to Site 5, on the boundary of sub-Site 5A, and 5B	PRoW Morningthorpe FP5	Recreational users	Site 5
VL5 (a)	Photowire	180° (W)	Adjacent to sub-Site 5B	Origin of PRoW Morningthorpe FP9 on The Street	Recreational users, Road users	Site 5
VL5 (b)	Photomontage Year 1 and Year 15	180° (NW)	Adjacent to sub-Site 5B	PRoW Morningthorpe FP9 west of Clay Cottage	Residents, Recreational users	Site 5
VL 6	Photowire	180° (N)	200m south of sub-Site 5B	PRoW Morningthorpe FP17 southwest of St Catherine Church and northwest of Fritton	Recreational users, Residents	Site 5
VL 8	Photowire	180° (W)	150m east of sub-Site 5B	B1527 Mill Road, near the settlement edge of Hempnall	Road users, Residents	Site 5

VL number	Visualisation Type	View Extent Presented / Direction	Distance from Order Limits (nearest element)	Reason for Selection	Representative Visual Receptors	Likely elements within view
Site 7						
VL1	Photowire	180° (N)	Adjacent to sub-Site 7A	Boudicca Way LDP on Fairstead Lane	Recreational users, Road users	Sub-Site 7A
VL 4	Photowire	180° (E)	200m north of sub-Site 7C	PRoW Saxlingham Nethergate FP25	Recreational users	Sub-Site 7C, CRC
VL 5	Photowire	180° (NE)	Internal within sub-Site 7D	PRoW Saxlingham Nethergate FP12 at interface with Saxlingham Nethergate FP14 and Hempnall BR30	Recreational users	Sub-Site 7D, CRC
VL 6	Photowire	180° (S)	200m north of sub-Site 7D	PRoW Saxlingham Nethergate RB17 on Plummers Lane	Recreational users, Residents	Sub-Site 7D
VL7	Photomontage Year 1 and Year 15	180° (S)	Adjacent to sub-Site 7D	PRoW Saxlingham Nethergate FP13 on Church Hill	Recreational users, Residential, Road users	Sub-Site 7D
VL9	Photowire	180° (SW)	Adjacent to sub-Site 7F	PRoW Saxlingham Nethergate FP19	Recreational users	Sub-Site 7F
VL10	Photowire	360°	Adjacent to sub-Sites 7I, and 7J	Rural Lane (The Green)	Road users, Recreational users	Sub-Sites 7I, 7J, 7H, and 7G, and CRC
VL11	Photowire	180° (SE)	40m northwest of sub-Site 7K	PRoW Shotesham FP21	Recreational users (broadly residential Woodton Farm)	Sub-Sites 7K and 7L
VL13	Photowire	270° (W, N, E)	Adjacent to sub-Sites 7K and 7L*	PRoW Woodton RB10	Recreational users	Sub-Sites 7K, 7L, and CRC
VL14	Photowire	360°	Adjacent to sub-Sites 7G, and 7H	Rural Lane (Bussey's Loke)	Road users, Recreational users	Sub-Site 7G, 7H
VL15	Photowire	180° (N)	330m south of sub-Site 7E	PRoW Hempnall FP5	Recreational users	Sub-Sites 7E, 7F, and 7G
VL17*	Photowire	180° (E)	Internal within sub-Site 7F	Junction of PRoW Saxlingham Nethergate FP10/FP11	Recreational users	Sub-Sites 7F, 7E
VL 20	Photowire	180° (N)	Adjacent to sub-Sites 7B and 7C	PRoW Hempnall FP2 / Fairstead Lane	Recreational users, Road users	Sub-Sites 7B, 7C
VL21	Photomontage Year 1 and Year 15	180° (S)	Adjacent to sub-Site 7F	PRoW Saxlingham Nethergate FP10	Recreational users	Sub-Sites 7F

VL number	Visualisation Type	View Extent Presented / Direction	Distance from Order Limits (nearest element)	Reason for Selection	Representative Visual Receptors	Likely elements within view
Site 8						
VL2	Photomontage Year 1 and Year 15	180° (NE)	200m west of sub-Site 8A	PRoW Shotesham FP18 at junction with Wash Lane	Recreational users, Residential	Site 8
VL4	Photowire	270°	Adjacent to sub-Site 8B	Market Lane south of Market Lane Farm	Residents, Road users	Site 8
VL6	Photomontage Year 1 and Year 15	180° (SW)	Internal within sub-Site 8B	PRoW Shotesham FP22	Recreational users	Site 8
VL8	Photomontage Year 1 and Year 15	180° (NE)	Adjacent to sub-Site 8A	Wash Lane, near Dawson's Farm	Residents, Road users	Site 8
VL9*	Photowire	90° (SE)	600m west of sub-Site 8A	Junction of Boudicca Way and Wash Lane	Recreational users, Road users	Site 8, CRC
VL10	Photomontage Year 1 and Year 15	180° (S)	200m north of sub-Site 8B	Brooke Road at settlement edge of Shotesham	Residents, Road users	Site 8
VL11	Photowire	180° (SW)	150m south of sub-Site 8B	Brooke Road, edge of King's Farm	Road Users, Residents	Site 8, CRC
Site 9						
VL 1	Photomontage Year 1 and Year 15	360°	Internal within Site 9	PRoW Brooke FP6	Recreational users	Site 9, CRC
VL2	Photowire	180° (N)	Adjacent to southern boundary of Site 9	Mill Lane at Brooke View Barns	Residents, Road users	Site 9, CRC
VL5	Photowire	180° (S)	Adjacent (to northern boundary of Site 9	PRoW Brooke FP6 south of High Green Gardens	Recreational users, Residents, Road users	Site 9, CRC
Site 10						
VL1	Photowire	180° (S)	Adjacent sub-Site 10C	Harvey Lane west of Nene Valley Farm	Road users	Site 10
VL4	Photowire	90° (NW)	Adjacent sub-Site 10E	Upgate Road	Road users	Site 10
VL5	Photomontage Year 1 and Year 15	180° (SE, SW)	Adjacent sub-Site 10B	Junction of Seething Road and Toad Lane / PRoW Seething RB13	Recreational users, Road users	Site 10, CRC
VL9	Photowire	90° (SW)	850m north of sub-Site 10E	PRoW Seething FP11 near settlement edge of Seething	Recreational users, Residents	Site 10

VL number	Visualisation Type	View Extent Presented / Direction	Distance from Order Limits (nearest element)	Reason for Selection	Representative Visual Receptors	Likely elements within view
VL10(b)	Photowire (summer view)	360°	Adjacent to sub-Sites 10A and 10B	Wash Lane (track) not a definitive right of way, but historic route	Recreational users	Site 10
Cable Route Corridor (CRC)						
VL9	Photowire	180° (E)	600m west of Site 5 and 650m east of Site 4	PRoW Morningthorpe FP2/Boudicca Way north of Devil's Wood	Recreational users	CRC, Site 5

**the selection responds to requests made by Hempnall Parish Council in their Scoping response.*

Methodology

4.3.7 The production of a visualisation includes the following tasks:

- Preparation of a base CAD file containing all view locations and reference elements (using aerial imagery), and creation of camera positions in 3DS Max for each view location.
- Lighting system (Daylight) set up in 3DS Max.
- Cameras are adjusted to best match each photographic panorama against imported reference elements.
- Lighting system adjusted to match shadows visible on each photographic panorama.
- Receipt of 3D design information added to 3DS Max Software.
- Each view is rendered as an image with the 3DS camera matched with the 3D model of the Project, at the same size, scale, resolution and aspect ratio as the digital photography.
- This gives a series of 3D rendered images ready for compositing with the photos of the existing baseline site.
- Non-visible areas of the rendered 3D model are masked in the image using Photoshop (as appropriate to the output type).
- High-resolution render processed for each view – producing a raster image (alpha separated).
- Final colour balancing/clean-ups carried out and image is exported from Photoshop.
- Images imported into InDesign using predefined drawing templates for each view location.

4.3.8 As recommended within TGN 6/19, **Table 4.1** sets out the technical methodology checklist for Type 3 outputs.

Table 7.1.19: Technical Methodology Checklist – Type 3

Technical Methodology	Response
Methodology	Non-Verifiable
Photography	
Method used to establish the camera location (e.g., handheld GPS/GNSS, GNSS/RTK, survey point, visual reference)	Visual Reference on site and on aerial imagery
Likely level of accuracy of location (#m, #cm etc.)	<1m
If lenses other than 50mm have been used, explain why a different lens is appropriate	50mm lens used on full frame DSLR camera

Technical Methodology	Response
Written description of procedures for image capture and processing	No
If panoramas used: make and type of Pano head and equipment used to level head	Vanguard Alta Pro 263AP and a Manfrotto MA 454 Micro Positioning Plate
If working outside the UK, geographic co-ordinate system (GCS) used (e.g., WGS-84)	OSGB36
3D Model / Visualisation	
Source of topographic height data and its resolution	Combination LiDAR + OS Terrain 2m and 5m and Google Earth Pro
How have the model and the camera locations been placed in the software?	Based on Photograph GPS coordinates, Google Earth Pro, and aligned with features in the photograph
Elements in the view used as target points to check the horizontal alignment	Existing buildings, telegraph poles, pylons, gantries, Trees, and various fixed points
Elements in the view used as target points to check the vertical alignment	Existing buildings, telegraph poles, pylons, gantries, Trees, and various fixed points
3D Modelling / Rendering Software	Autodesk 3ds Max 2023
Any limitations in the overall methodology for preparation of the visualisations?	Photograph GPS coordinates are used as a guide as they are not accurate especially in elevation
Visualisation Type	Photo wire - Type 3 TGN 06-19 Photomontage – Type 3 TGN 06-19
Projection	Cylindrical
Enlargement factor for intended sheet size	100% @ A1
Date and Time of captured photography	Jan / Feb 2025 (winter), and June / July 2025 (summer)
Make and model of camera, and its sensor format	Canon EOS 6D Mark II Full Frame Digital SLR, using a Canon EF 50mm f/1.8 STM in landscape orientation
Make, focal length of the camera lens(es) used	50mm
Horizontal Field of View (HFoV) of photograph / visual	90°
Direction of View: bearing from North (0°) or Compass Direction	Stated on each sheet
Camera location grid coordinates: eastings & northings to relevant accuracy; height of ground in metres Above Ordnance Datum (mAOD)	Stated on each sheet
Distance to the nearest site boundary, or key development feature, as most appropriate	Stated on each sheet
Height of the camera lens above ground level and, if above 1.65m or below 1.5m, why?	1.65m
Additional imagery	
Baseline photograph	Yes
A composite view generated by overlaying multiple layers of image data: the photograph, 3D models of terrain (LiDAR DTM) and / or 3D model of LiDAR DSM, 3D model of Scheme, 3D model of landscape mitigation. This can explain how the photomontage has been generated.	No
A photograph of the tripod location to confirm the camera / tripod location	Yes

5 Standard LVIA Glossary and Abbreviations

5.1 LVIA Glossary

5.1.1 Standard terms used in the LVIA are set out in Table 7.1.18.

Table 7.1.18: LVIA Glossary

Term	Explanation
Baseline Conditions	The environment as it appears (or would appear) immediately prior to the implementation of the Scheme together with any known or foreseeable future changes that will take place before completion of the project
Baseline Information	Collection of background information on the environmental, social and economic setting of a Scheme, to be sued to predict changes and compare and evaluate them in terms of importance
Characteristics	Features, or combinations of, which make a contribution to distinctive landscape or townscape character
Committed Development	Development projects that are either under construction or which have valid planning permission/consents
Conservation Area	Land awarded protection status to prevent change to the natural features, cultural heritage and biodiversity of the area
Cumulative effects	Additional changes caused by the Scheme in conjunction with other developments (associated with or separate to it), or actions that occurred in the past, present or are likely to occur in the foreseeable future. And: The summation of effects that result from changes caused by a development in conjunction with other past, present, or reasonably foreseeable actions
Designated Landscape or Townscape	Areas of landscape or townscape identified as being of importance at international, national or local levels, either defined by statute or identified in development plans or other documents
Desktop Studies	The gathering and analysis of existing data from the public domain, scientific and commercial databases, and available project sources, in order to identify environmental constraints and opportunities
Direct Effect	An effect that is directly attributable to the Scheme
Development	Any proposal that results in a change to the landscape and/or visual environment
Enhancement	Proposals that seek to improve the landscape resource and the visual amenity of the site and its wider setting, over and above its baseline condition
Features	Particularly prominent, "eye-catching" elements or characteristic components (i.e. Tree clumps, church towers, or wooded skylines).
Heritage	The historic environment and especially valued assets and qualities such as historic buildings and cultural traditions
Key Characteristics	Those combinations of features which are particularly important to the current character of the landscape or townscape, and which help to give an area its particularly distinctive sense of place
Landscape	An area, as perceived by people, the character of which is the result of action and interaction of natural and/or human factors

Term	Explanation
Landscape or Townscape Character	A distinct and recognisable pattern of features that occurs consistently in a particular type of landscape or townscape and which makes one landscape or townscape different from another. It reflects particular combinations of geology, landform, soils, vegetation, land use and human settlement, built form and layout, scale, mass and legibility. It creates the particular sense of place of different areas of the landscape or townscape
Landscape or Townscape Effects	Effects on the landscape or townscape as a resource in its own right
Landscape or Townscape Quality (condition)	A measure of the physical state of the landscape or townscape. It may include the extent to which typical character is represented in the individual areas, the intactness of the landscape or townscape and the condition of individual features
Landscape or Townscape Receptors	Defined aspects of the landscape or townscape resource that have the potential to be affected by a proposal.
Landscape or Townscape Value	The relative value that is attached to different landscapes or townscapes by society. A landscape or townscape may be valued by different stakeholders for a variety of reasons.
Listed Buildings	A building with historic, artistic or architectural interest, which has been listed on the statutory list of buildings
Magnitude	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 the length of its duration. Includes consideration of whether the effect is reversible or irreversible. Magnitude is presented in terms of being major, moderate, slight or negligible. Magnitude is defined for LVIA in the LVIA Methodology Appendix.
Mitigation Measures	Action taken to avoid reduce or offset adverse environmental, social and economic impacts of a Scheme
Indirect Effects	Effects that result indirectly from the proposed Scheme 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.
Photomontage	The superimposing of an image onto a photograph for the purpose of creating a realistic representation of proposed or potential changes to a view
Receptor	Physical resource or user group that would experience an effect, either negative or positive from the Scheme
Residual Effects	Impacts that would remain following the implementation of the mitigation measures
Sensitivity	A term applied to specific receptors, combining judgements of the susceptibility of the receptor to the specific type of change of development proposed and the value related to that receptor
Scoping	Scoping is the process of determining what issues are to be addressed and setting out a methodology in which to address them in a structured manner appropriate to the plan or programme. Scoping is carried out in consultation with the appropriate bodies.
Significance	A measure of the importance of gravity of the environmental effect, defined by significance criteria specific to the environmental topic. This assessment considers the sensitivity or importance of the receptor (high, medium, low and negligible) and the magnitude/scale of change (large, medium, small and

Term	Explanation
	negligible) which is likely to occur in the receiving environment after mitigation.
Study Area	Areas surrounding and including the Scheme, where there is reasonable potential for environmental, economic and social impacts arising from the Scheme. Study areas are defined for each topic of the EIA
Susceptibility	The ability of a defined landscape or townscape or visual receptor to accommodate the specific Scheme without undue negative consequences
Townscape	The character and composition of the built environment including the buildings and the relationships between them, the different types of urban open space, including green spaces, and the relationship between buildings and open spaces
Visual Amenity	The overall pleasantness of the views people enjoy of their surroundings, which provides an attractive visual setting or backdrop for the enjoyment of activities of the people living, working, recreating, visiting, or travelling through an area.
Visual Effects	Effects on specific views and on the general visual amenity experienced by people
Visual Receptor	Individuals and/or defined groups of people who have the potential to be affected by a proposal. Typically represented by a selected viewpoint location.
Visualisation	A computer simulation, photomontage or other technique illustrating the predicted appearance of a development. Accurate Visual Representations (AVRs) are produced in accordance with specific methodology.
Zone of Theoretical Visibility (ZTV)	A map, digitally produced, showing areas of land within which a development is theoretically visible, typically using a Digital Terrain Model or bare earth base.
ZTV 'with visual barriers'	A map, digitally produced, showing areas of land within which a development is theoretically visible, typically using a Digital Surface Model which accounts for built form and vegetation features.

5.2 Standard Abbreviations

5.2.1 Standard abbreviations used in the LVIA are set out below:

- AOD – Above Ordnance Datum
- BS – British Standard
- CA – Conservation Area
- CEMP - Construction Environmental Management Plan
- CROW Act – The Countryside and Rights of Way Act 2000
- CRTN - Control of Road Traffic Noise

- DAS – Design and Access Statement
- DEFRA - Department for Environment, Food and Rural Affairs
- EU - European Union
- GI – Green Infrastructure
- GIS – Geographical Information Systems
- GLVIA3 – Guidelines for Landscape and Visual Impact Assessment, Landscape Institute (Third edition)
- IEMA - Institute of Environmental Management & Assessment
- LCA – Landscape Character Area
- LCT – Landscape Character Type
- LDP – Local Development Plan
- LI – Landscape Institute
- LPA – Local Planning Authority
- LVIA – Landscape and Visual Impact Assessment
- MAGIC – English Government's online mapping tool
- NCA – National Character Area
- NPPF – National Planning Policy Framework
- PPG – Planning Practice Guidance
- PRoW - Public Rights of Way
- RHPG – Register of Parks and Gardens of Special Historic Interest
- RSA – Regional Scenic Area
- SAC – Special Area of Conservation
- SAM – Scheduled Ancient Monument
- SLA – Special Landscape Area
- SPG – Supplementary Planning Guidance
- SUDS - Sustainable urban drainage systems
- TPO – Tree Preservation Order

- WHS – World Heritage Site
- ZTV – Zone of Theoretical Visibility

5.3 References

Ref 1. The European Landscape Convention - Council of Europe Landscape Convention (coe.int). Available at: https://www.coe.int/en/web/landscape/the-european-landscape-convention

Ref 2. Swanwick and Land Use Consultants (2002) Landscape character assessment guidance for England and Scotland.

Ref 3. Landscape Institute (2013) Guidelines for Landscape and Visual Impact Assessment, 3rd Edition. https://landscapeinstitute.org/policy-practice/technical/assessments-standards/glvia3-panel/

Ref 4. LITGN-2024-01 Notes and Clarifications on aspects of the 3rd Edition Guidelines on Landscape and Visual Impact Assessment. The Landscape Institute. Available at; Notes and Clarifications on aspects of the 3rd Edition Guidelines on Landscape and Visual Impact Assessment (GLVIA3) LITGN-2024-01

Ref 5. LITGN-2015-08 Landscape Character Assessment. The Landscape Institute. Available at: : https://landscapewpstorage01.blob.core.windows.net/www-landscapeinstitute-org/2016/01/Landscape-Character-Assessment-TIN-08_15-20160216.pdf

Ref 6. LITGN-2021-02 Assessing Landscape Value Outside National Designations. The Landscape Institute. Available at: https://landscapewpstorage01.blob.core.windows.net/www-landscapeinstitute-org/2021/05/tgn-02-21-assessing-landscape-value-outside-national-designations.pdf. Accessed February 2025

Ref 7. LITGN 06-19. Visual Representation of Development Proposals. The Landscape institute. https://landscapewpstorage01.blob.core.windows.net/www-landscapeinstitute-org/2019/09/LI_TGN-06-19_Visual_Representation.pdf Accessed February 2025

Ref 8. Landscape Institute (2013) Guidelines for Landscape and Visual Impact Assessment, 3rd Edition. https://landscapeinstitute.org/policy-practice/technical/assessments-standards/glvia3-panel/