Fosse Green Energy

EN010154

6.3 Environmental Statement Appendices

Appendix 10-B: Landscape and Visual Impact Assessment Methodology

Planning Act 2008 (as amended)

Regulation 5(2)(a)

Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (as amended)

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Planning Act 2008

The Infrastructure Planning
(Applications: Prescribed Forms and
Procedure) Regulation 2009 (as amended)

Fosse Green Energy

Development Consent Order 202[ ]

6.3 Environmental Statement Appendices

Appendix 10-B: Landscape and Visual Impact Assessment Methodology

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1. Landscape and Visual Impact Assessment (LVIA) Methodology

1.1 Introduction

1.1.1 This appendix sets out the methodology applied in the Landscape and Visual Impact Assessment (LVIA) of the Proposed Development, undertaken by Chartered Landscape Architects at Iceni Projects.

Overview

1.1.2 The LVIA methodology involves the following stages:

a. A baseline review of published landscape assessments, studies, relevant supporting evidence base documents, aerial photography, mapping, and field work to identify the landscape and visual baseline and receptors;

b. Iterative review of design development to embed mitigation measures into the Proposed Development;

c. Consideration of the sensitivity of landscape and visual receptors, based on an assessment of their respective value and susceptibility to change;

d. Consideration of the magnitude of impact resulting from the Proposed Development. The consideration of magnitude of impact is based on the scale, duration, and reversibility of the effect; and

e. Combination of the receptor's sensitivity and the magnitude of impact experienced to determine the resultant level of effect.

1.1.3 The assessment of the Proposed Development has been undertaken for:

a. Peak construction activity in winter (i.e. when deciduous vegetation is not in leaf);

b. Year 1 of operation, assuming the Proposed Development is built out and in winter;

c. Year 15 of the operation, assuming the proposed planting has established, in winter. Where there is a difference in level of effect in summer conditions then a separate summer scenario is assessed; and

d. Decommissioning in winter.

Applicable Guidance

1.1.4 The LVIA is based on best practice and industry guidance set out in the following:

a. An Approach to Landscape Character Assessment (2014), Natural England (Ref 3);

b. Assessing landscape value outside national designations, Technical Guidance Note 02/21 (2021), Landscape Institute (Ref 4);

c. Guidelines for Landscape and Visual Impact Assessment, 3rd edition (2013), Landscape Institute and Institute of Environmental Management and Assessment (Ref 1);

d. Notes and Clarifications on aspects of GLVIA 3, LI TGN-2024-01, Landscape Institute (Ref 10);

e. Infrastructure, Technical Guidance Note 04/20 (2020), Landscape Institute (Ref 5);

f. Residential Visual Amenity Assessment (RVAA), Technical Guidance Note 02/19 (2019), Landscape Institute (Ref 8);

g. Townscape Character Assessment, Technical Information Note 05/17 (2017), Landscape Institute (Ref 11);

h. Tranquillity, Technical Information Note 01/17 (2017), Landscape Institute (Ref 6); and

i. Visual Representation of Development Proposals, Technical Guidance Note 06/19 (2019), Landscape Institute (Ref 7).

1.2 Assessment Methodology

Establishment of the Study Area

1.2.1 With reference to GLVIA 3, the purpose of the study area is to identify a geographic area around the DCO Site which is likely to experience significant landscape and visual effects, and which is proportionate to the Proposed Development.

1.2.2 To identify the study area, an initial area of search extended 5km from the DCO Site. A 5km distance was selected based on experience from DCO solar schemes, and professional judgement, that from beyond 5km significant adverse effects are not likely to occur, due to distance and intervening features.

1.2.3 A computer-generated Zone of Theoretical Visibility (ZTV) was then prepared up to a 5km radius from the DCO Site to appraise the potential visibility of the solar panels (up to 3.5m), solar stations (up to 4m), BESS compound (up to 4.5m), and Onsite Substation (up to 13.5m) within the Proposed Development. Ordnance Survey (OS) mapping and aerial photography was used to identify potential receptors where the ZTV identified theoretical visibility.

1.2.4 Fieldwork was then undertaken to verify the findings of the desk-based analysis. This involved visiting representative viewpoints (i.e. a publicly accessible location from which to take a representative photograph) of potential visual receptors (‘people’) to establish the nature of views and the likely extent to which they could be affected by the Proposed Development.

1.2.5 Informed by the findings of the desk analysis and field survey, the 5km study area was reduced to a 2km radius of the DCO Site. Intervening surface features, in particular field boundary vegetation, hedgerows lining local roads and infrastructure, negate any perception of the DCO Site between the 2km and 5km distance and thereby negate the likelihood of significant effects arising from the Proposed Development beyond the 2km study area.

1.2.6 The 2km study area was kept under review during the design evolution and development of mitigation proposals and is assessed as remaining proportionate and representative to the assessment of the Proposed Development.

Desk Study

1.2.7 The landscape and visual baseline has been informed by the relevant policy framework and guidance as set out in **Volume 6.3 Appendix 10-A: Landscape and Visual Amenity Policy and Legislation [EN010154/APP/6.3]**. The desk study has also included a review of the following sources of information:

a. Natural England National Character Areas, which set out broad descriptions of the landscape character, key characteristics, and statements of environmental opportunity;

b. The East Midlands and North Kesteven Landscape Character Assessments, which define differing landscape character areas based upon a range of geographic scales, as well as guidance for the management of future change;

c. OS Explorers 271: Newark-on-Trent and no. 272: Lincoln, plus OS Landrangers 120 Mansfield & Worksop and no.121: Lincoln & Newark-on-Trent, and aerial mapping;

d. Magic interactive mapping which provides environmental, geographic and navigation information;

e. Public Right of Way (PRoW) mapping for Nottinghamshire and Lincolnshire, which provides the alignment and naming of various routes;

f. Campaign for the Protection of Rural England tranquillity and night sky mapping, which illustrates the tranquillity and radiance of the night skies; and

g. Historic England online mapping for listed buildings and scheduled monuments.

Field Survey

1.2.8 Field surveys were undertaken in winter conditions in March 2024 and March 2025 to review and record the landscape and visual amenity baseline within the study area. Summer field surveys were also conducted between April and August 2023 to gain an understanding of the seasonal differences of existing vegetation.

1.2.9 The field surveys involved the analysis of the defining landscape attributes and features across the DCO Site and study area. Consideration was also given to the boundaries and key characteristics of the local village character areas based upon observations in the field.

1.2.10 The field survey also informed the scope of the final visual receptors and representative viewpoints.

Consultation

1.2.11 Consultation was undertaken to agree the proposed assessment methodology, scope of receptors and viewpoints, as well as the mitigation design. Consultees associated with the Landscape and Visual Impact Assessment included:

a. Planning Inspectorate
b. Natural England
c. Forestry Commission
d. Environment Agency
e. Lincolnshire County Council
f. North Kesteven District Council
g. West Lindsey District Council
h. Navenby Parish Council
i. Thorpe on the Hill Parish Council
j. Coleby Parish Council
k. Aubourn with Haddington Parish Council Lincolnshire
l. Wellingore Parish Council
m. Norton Disney Parish Clerk

Assessment of Landscape Effects

Landscape Baseline and Receptors

1.2.12 Landscape is defined by the European Landscape Convention as *"an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors"* (Ref 9).

1.2.13 GLVIA3 defines landscape receptors as *"aspects of the landscape resource that have the potential to be affected by a proposal"* (Ref 1).

1.2.14 Landscape receptors have been identified via a review of published landscape character assessments, maps and aerial photography, relevant planning policy and fieldwork surveys.

1.2.15 Landscape character is defined by GLVIA3 as *"a distinct, recognisable and consistent pattern of elements in the landscape that makes one landscape different from another, rather than better or worse"* (Ref 1).

1.2.16 Published landscape character assessments at the national, regional and district level have been reviewed to identify Landscape Character Types (LCT) and Landscape Character Areas (LCA), and to ensure any related landscape strategies are captured to inform the development of the masterplan and landscape design.

1.2.17 Paragraph 5.14 of GLVIA3 states *"broad-scale assessments at national or regional level can be helpful in setting the landscape context, but are unlikely to be helpful on their own as the basis for LVIA"*. However, this is largely dependent on the scale of the proposals relative to the receptors being assessed, and district landscape character assessments may provide the required granularity of assessment to sufficiently report on likely effects. Where this is not the case, Local Landscape Character Areas (LLCA) have been classified by the LVIA Assessors within the project study area and a finer scale, project-specific assessment of their landscape character has been undertaken.

Landscape Sensitivity

1.2.18 Paragraph 5.39 of GLVIA3 states that

"Landscape receptors need to be assessed firstly in terms of their sensitivity, combining judgements of their susceptibility to the type of change or development proposed and the value attached to the landscape" (Ref 1).

Landscape Value

1.2.19 Landscape value refers to the relative value that is attached to different landscapes by society.

1.2.20 The assessment of the value of each landscape receptor has been informed by the information set out in the baseline, including landscape designations and factors set out in the Landscape Institute Technical Guidance Note 02/21: Assessing landscape value outside national designations. The range of factors that can be considered when identifying landscape value are:

a. Natural heritage: "Landscape with clear evidence of ecological, geological, geomorphological or physiographic interest which contribute positively to the landscape."

b. Cultural heritage: Landscape with clear evidence of archaeological, historical or cultural interest which contribute positively to the landscape.

c. Landscape condition: Landscape which is in a good physical state both with regard to individual elements and overall landscape structure.

d. Associations: Landscape which is connected with notable people, events and the arts.

e. Distinctiveness: Landscape that has a strong sense of identity.

f. Recreational: Landscape offering recreational opportunities where experience of landscape is important.

g. Perceptual (scenic): Landscape that appeals to the senses, primarily the visual sense.

h. Perceptual (wildness and tranquillity): Landscape with a strong perceptual value notably wildness, tranquillity and/or dark skies.

i. Functional: Landscape which performs a clearly identifiable and valuable function, particularly in the healthy functioning of the landscape.

1.2.21 In accordance with TGN 02/21, the indicators of value are reviewed on a case-by-case basis, taking into account their positive or negative contribution to the specific landscape. Once the evidence for each factor has been collated and assessed, the overall 'weight of evidence' is considered in coming to an overall judgement on landscape value.

1.2.22 **Table 1** sets out the criteria for the assessment of landscape value based upon the assessment of the above indicators of landscape value.

Table 1: Criteria for the assessment of landscape value

Classification	Value Criteria
High	High quality landscapes which are likely to be protected by a landscape-specific designation, or landscapes with abundant evidence of natural, cultural, perceptual, or recreational capital. These are likely to include, but are not limited to: • Designated landscapes, such as Registered Parks and Gardens, Conservation Areas, or local authority landscape designations; • Landscapes adjacent to designated landscapes which exhibit elements that underpin the designation; • Landscapes which are highly representative of the key characteristics of the relevant LCAs within published Landscape Character Assessments; • Landscapes which are consistently in good condition; • Landscapes exhibiting distinctive features that may be referenced in art or literature and/or a high scenic and perceptual quality; and • Landscapes with a high degree of widespread tranquillity.
Medium	'Everyday' landscapes which may include elements of community importance or aspects of natural, cultural, perceptual or recreational capital. These are likely to include, but are not limited to: • Landscapes which are partially representative of the key characteristics of the relevant LCAs within published Landscape Character Assessments; • Landscapes which are mostly in moderate condition; • Landscapes that have some scenic or perceptual qualities that may have some cultural association; • Landscapes with some areas of tranquillity; and • Landscapes with few detracting elements.
Low	Landscapes with weak or discordant elements and characteristics which detract from the quality of the area. These are likely to include, but are not limited to: • Landscapes which exhibit few of the key characteristics of the relevant LCA within published Landscape Character Assessments; • Landscapes in poor condition; • Landscapes with limited scenic or perceptual qualities with limited or no cultural association; • Landscapes which have a limited or no sense of tranquillity; and • Landscapes with multiple detracting elements, or detracting features that affect a large extent of the area.

Landscape Susceptibility

1.2.23 GLVIA3 (Ref 1) Paragraph 5.40 defines landscape susceptibility as:

"the ability of the landscape receptor (whether it be overall character of condition of a particular landscape type or area, or an individual element and/or features, or a particular aesthetic and perceptual aspect) to accommodate the proposed development without undue consequences for the maintenance of the baseline situation and/or the achievement of landscape planning policies and strategies".

1.2.24 LI TGN-2024-01 clarifies that the reference to 'proposed development' in Paragraph 5.40 is intended to distinguish from the intrinsic sensitivity of a landscape receptor, and that if details on type and size are available then these can be used to inform judgements on the susceptibility of the site and surrounding landscape.

1.2.25 The features and characteristics of each landscape receptor that are considered to be more or less susceptible to the type and nature of development proposed within the DCO Site, that is a utility scale solar farm, have been identified in the assessment. Considerations for landscape susceptibility together with indicators of higher and lower susceptibility are set out for those landscape receptors in the DCO Site in **Table 2.**

Table 2: Indicators of Landscape Susceptibility

Consideration	Indicators of Higher Susceptibility	Indicators of Lower Susceptibility
Field pattern, scale and enclosure	• Small scale fields • Irregular or complex field patterns • Low field boundaries	• Large scale fields • Regular or simple field • pattern • High field boundaries
Landform	• Irregular or complex landform • Steep topography • Narrow valleys and ridges • Distinctive landform features	• Uniform landform • Flat topography • Expansive lowland landscapes • No or minimal distinctive landform features
Landcover	• Natural or semi-natural landcover • Large areas of woodland • Open pastures • Parkland landscapes	• Large scale and/or intensively managed arable fields • Previously developed land
Human influences / tranquillity	• Absence of modern development • Sparsely settled or un-populated areas • Presence of small scale, historic, vernacular buildings or structures • Physically or perceptually remote, peaceful or tranquil	• Landscapes with obvious signs of human activity • Major infrastructure (transport / utilities / industrial) • Presence of urban or modern built form or structures • Physically or perceptually settled, noisy or unattractive

Historic features and cultural heritage	• Historic field patterns • Presence of features of historic and/or cultural interest • Strong association with historic and/or cultural features	• Modern landscape • Limited or no features of historic and/or cultural interest • Limited association with historic and/or cultural features
Scenic quality and character	• High scenic quality • Strong sense of place	• Low scenic quality • Weak sense of place
Intervisibility	• Open or exposed landscapes with far-reaching views • Sparse woodland and tree cover • Fields bound by low and/or gappy field boundaries • Intervisibility with sensitive landscapes	• Confined or enclosed landscapes with mostly short distance views • High proportion of woodland blocks and tree belts • Fields bound by high and/or intact hedgerows and/or with trees • Limited intervisibility with sensitive landscapes

1.2.26 Landscape susceptibility is assessed with reference to the criteria set out in **Table 3**.

Table 3: Criteria for assessment of landscape susceptibility

Classification	Susceptibility Criteria
High	The landscape is less able to accommodate change associated with the Proposed Development without excessive changes to existing landscape features or the landscape character. Landscape features, such as landform and vegetation, and overall character offer limited potential for change without being fundamentally altered to accommodate the Proposed Development. These are likely to include, but are not limited to: • Landscapes which are smaller or more intimate in scale; • Landscapes with little or no existing infrastructure; • Landscapes which are open and therefore afford a wider intervisibility with the surrounding landscape; and • Landscapes with a notable vegetation structure which can't easily be replaced if removed.
Medium	The landscape is able to accommodate change associated with the Proposed Development to some extent without excessive changes to existing landscape features or the landscape character. This may include, but is not limited to: • Medium-scale landscapes; • Landscapes with some infrastructure present; • Partially enclosed landscapes, by nature of topography or vegetation; and • Landscapes with a common or easily replaceable vegetation structure.
Low	The landscape is able to accommodate change associated with the Proposed Development without excessive changes to existing landscape features or the landscape character. These are likely to include, but are not limited to: • Large-scale landscapes; • Landscapes influenced by infrastructure; and • Enclosed landscapes, for example those with flat and low lying topography with existing screening features.

Overall Landscape Sensitivity

1.2.27 Landscape value and landscape susceptibility are assessed separately and then combined to define the sensitivity of the landscape receptor, with reference to the criteria set out in **Table 4**.

Table 4: Landscape Sensitivity Definitions

Classification	Sensitivity Definition
High	Typically landscapes of high value which have little opportunity to accommodate the type of development which is proposed. This is likely to include designated landscapes which are of high quality. The landscape is likely to comprise rare or important elements that combine to create a strong sense of place.
Medium-high	Typically landscapes of high or medium value which have little to some opportunity to accommodate the type of development which is proposed. The landscape is likely to comprise important elements beyond an 'everyday' landscape.
Medium	Typically landscapes of medium value with some opportunity to accommodate the type of development which is proposed. The change experienced would not lead to a major change to the landscape elements or character.
Low-medium	Typically landscapes of low or medium value which have some to many opportunities to accommodate the type of development which is proposed. The landscape is likely to comprise very few important elements.
Low	Typically landscapes of low value or quality, comprising features and elements that combine to create an indistinct and / or discordant character. These landscapes generally have opportunity to accommodate the type of development which is proposed without major loss of key or important elements.

Magnitude of Landscape Effects

1.2.28 GLVIA3 notes at Paragraph 3.28 that magnitude is informed by combining considerations of the scale, extent, and duration of an effect.

1.2.29 This assessment considers the duration of effects as:

a. Short term: 0–2 years;

b. Medium term: 2–5 years; and

c. Long term: over 5 years.

1.2.30 **Table 5** sets out the criteria used to determine the magnitude of landscape impacts.

Table 5: Landscape Magnitude of Impact Criteria

Classification	Landscape Magnitude of Impact Criteria
High	Substantial alteration to the aesthetic or perceptual aspects of the landscape receptor through the addition or removal of features. Likely to affect a large proportion of the receptor. Likely long term but may be reversible.
Medium	Partial alteration to the aesthetic or perceptual aspects of the landscape receptor through the addition or removal of features. Likely to affect a moderate extent of the receptor. Likely medium or long term but may be reversible.
Low	Subtle alteration to the aesthetic or perceptual aspects of the landscape receptor through the addition or removal of features. Likely to affect a small proportion of the receptor. Likely short or medium term but may be reversible.

Very low	Very slight alteration to the landscape receptor which may impact a limited area or no key characteristics. Likely short or medium term but may be reversible.
None	No change to the physical or perceptual qualities of the landscape receptor.

Assessment of Visual Effects

Visual Baseline and Receptors

1.2.31 A series of computer-generated ZTVs were prepared using the 'Viewshed' tool in ArcGIS 10.8.1 software for the Proposed Development. This assumes a 3.5m height of solar panels, 4m height of solar stations, 4.5m height of BESS compound, and 13.5m height of Onsite Substation, as well as an assumed viewing height of 1.6m above ground level to simulate the eye level of a person in the surrounding landscape.

1.2.32 The ZTVs have been modelled for individual and combined components of the Proposed Development and run across the 5km areas of search and the 2km study area.

1.2.33 A bare earth ZTV was first prepared using Environment Agency LiDAR digital terrain model (DTM) data of 1m resolution to demonstrate the influence of landform alone on the potential intervisibility.

1.2.34 A second ZTV was prepared that accounts for surface features, such as existing buildings and woodland, was prepared using Environment Agency digital terrain model (DTM) of 1m resolution. Features that provide screening were then added using the Forestry Commission National Forest inventory data and Ordnance Survey Local Map building data with assumed heights of 12m and 9m respectively.

1.2.35 The ZTVs have been updated as the design of the Proposed Development has progressed and verified through fieldwork. The ZTV has been used for the following:

a. Identify the theoretical extents of the Proposed Development visibility i.e. the locations from which it could potentially appear in views;

b. Assist in the identification of the study area;

c. Identify visual receptors likely to be affected by the Proposed Development;

d. Identify locations that are representative of the views experienced by visual receptors at different locations within the study area (representative viewpoints); and

e. Inform the design, including the extent and type of proposed mitigation.

1.2.36 Visual receptors are defined in GLVIA3 as *"individuals and/or defined groups of people who have the potential to be affected by a proposal"* (Ref. 1). For example, this could include residents, users of public rights of way (PRoW) and motorists.

1.2.37 Visual receptors likely to experience change to their visual amenity due to construction, operation and maintenance or decommissioning of the Proposed Development have been identified through analysis of the ZTV and through field surveys. Visual receptors identified are categorised into the following categories:

a. Residents;
b. Users of PRoW; and
c. People travelling on roads.

1.2.38 Visual receptors who are likely to experience similar views have been grouped as a single receptor group.

Representative Viewpoints

1.2.39 In line with GLVIA3, viewpoints were selected to represent typical views experienced by visual receptors and illustrate views from within the local landscape character areas. The representative viewpoints were identified using the following criteria:

a. Accessibility to the public;
b. Number and sensitivity of people who could be affected;
c. Viewing direction, distance, and elevation; and
d. Nature of the viewing experience.

1.2.40 Further detail of the viewpoints is provided at **Appendix 10-D: Visual Baseline [EN010154/APP/6.3]**.

1.2.41 Photographs have been captured from each representative viewpoint in line with the requirements as set out in the Landscape Institute's Technical Guidance Note 06/19: Visual Representation of Development Proposals, 2019 (Ref 7). Viewpoint photography is provided at **Figure 10-8: Viewpoint Photography [EN010154/APP/6.2].**

1.2.42 TGN 06/19 also defines the following types of visualisations, each with their own specific technical requirements:

a. Type 1: annotated viewpoint photographs;
b. Type 2: 3D wireline / model;
c. Type 3: photomontage / photowire;
d. Type 4: photomontage / photowire (survey / scale verifiable).

1.2.43 Type 3 photomontages have been produced for 11 representative viewpoints to demonstrate a variety of views and receptors. Where applicable, photomontages have been chosen to demonstrate the worst-case scenario for visual receptors. Type 3 photomontages have been produced at Year 1 (winter) and Year 15 (winter and summer) to demonstrate the effects of mitigation planting. The photomontages are provided at **Figure 10-10: Photomontages [EN010154/APP/6.2].**

Visual Sensitivity

1.2.44 Paragraph 6.31 of GLVIA3 (Ref 1) states that:

"Each visual receptor, meaning the particular person or group of people likely to be affected at a specific viewpoint should be assessed in terms of both their susceptibility to change in views and visual amenity and also the value attached to particular views."

Visual Value

1.2.45 The value attached to views experienced has been considered in line with GLVIA3, Paragraph 6.37 (Ref 1), which identifies the following indicators of value:

a. Views associated with heritage assets or planning designations;

b. Appearances in guidebooks or tourist maps or proximity to facilities such as parking or interpretive materials; and

c. References to views in literature or art.

1.2.46 Visual value has been assessed in line with the criteria set out in **Table 6**.

Table 6: Visual Value Criteria

Classification	Visual Value Criteria
High	Views of high quality or distinctive elements, or viewing places which are within landscape designations. These are likely to include, but are not limited to: • Viewpoints specified within guidebooks, OS maps or Landscape Character Assessments; • Views from historic landscapes, such as Registered Parks and Gardens and/or designated heritage assets; and • High quality views noted within Local Plans and Neighbourhood Plans.
Medium	Views of moderate quality elements but unlikely to be designated or promoted. Views may include local landmarks which are valued by local communities.
Low	Views that include poor quality elements and/or detracting features, or a featureless view e.g. a featureless agricultural landscape or poor quality urban fringe.

Visual Susceptibility

1.2.47 The susceptibility of visual receptors results from parameters, such as:

a. "The occupation or activity of people experiencing the view at particular locations; and

b. The extent to which their attention or interest may therefore be focussed on the views and the visual amenity they experience at particular locations."

1.2.48 GLVIA3 (Ref 1) notes that visual receptors "*most susceptible to change*" include residents at home and visitors engaged in outdoor recreation whose attention is likely to be focused on the landscape and particular views. Visitors to heritage assets where the view is important, and communities where views contribute to the landscape setting are also noted as indicators of susceptibility.

1.2.49 The criteria used to assess visual susceptibility is listed in **Table 7**.

Table 7: Visual Susceptibility Criteria

Classification	Visual Susceptibility Criteria
High	People whose attention or interest is focused on their view or it forms an important part of their experience. These are likely to include, but are not limited to: • Residents at home; • Communities where views contribute to the landscape setting enjoyed by residents; • People engaged in outdoor recreation where their interest is likely to be focussed on the landscape, for example Public Rights of Way or promoted routes; and • Visitors to heritage assets, or other attractions, where views are an important contributor to the experience.
Medium	People whose attention is less focused on their view or are travelling through the area where views are relevant to the experience of the journey but are not specific reasons for visiting. These are likely to include, but are not limited to: • People walking on public rights of way where appreciation of the view is unlikely to be the primary interest; • Users of the local road network where views are transitory but the surrounding landscape forms part of the experience; • Users of the rail network where views are transitory but the surrounding landscape forms part of the experience; and • People at their place of work where views contribute to the quality of working life.
Low	People passing through the area at higher speeds or where their attention is not focused on their surroundings. These are likely to include, but are not limited to: • People travelling at higher speeds on the major road network; • People engaged in outdoor sport or recreation which does not depend on an appreciation of views of the landscape; and • People at their place of work where the setting is not important to the quality of working life / focus is on work and not their surroundings.

Overall Visual Sensitivity

1.2.50 The sensitivity of a visual receptor is derived from a combination of value and susceptibility. A description of sensitivity is provided in **Table 8**.

Table 8: Visual Sensitivity Description

Classification	Visual Sensitivity Description
High	People with a particular interest or appreciation of a high-quality view, for example people visiting promoted viewpoints or designated landscapes, residents with high quality views, or people visiting heritage assets or other attractions where the view is an important contributor to the experience.
Medium-high	People with a particular or general interest or appreciation of the view, and/or a view of some high and moderate quality elements that may contribute to the visual experience.
Medium	People with a general interest or appreciation of the view and/or a view of moderate quality elements that may be important to the local community value.

Classification	Visual Sensitivity Description
Low-medium	People with a general or secondary interest or appreciation of the view, and/or views of some moderate or low-quality elements that may contribute to the visual experience.
Low	People whose interest or appreciation of the view is secondary to the activity or short in duration, for example motorists travelling at high speeds along the major road network, or a view of limited value.

Magnitude of Visual Effects

1.2.51 **Table 9** sets out the criteria used to determine the magnitude of visual effects and combines considerations of the scale (including angle of view), geographic extent, and duration of an effect.

Table 9: Visual Magnitude of Impact Criteria

Classification	Visual Magnitude of Impact Criteria
High	Substantial alteration to the composition of the existing view (e.g. widespread loss of characteristic features or the addition of new features within the view) and/or high degree of exposure to view (e.g. long-term, close, direct, or open views). Likely long term but may be reversible.
Medium	Partial change to the composition of the existing view (e.g. noticeable loss of some characteristic features or the addition of new features within the view) and/or medium degree of exposure to view (e.g. medium-term, middle-distance or partially screened views). Likely medium or long term but may be reversible.
Low	Subtle change to existing view (e.g. limited loss of characteristic features or the addition of new features within the view) and/or low degree of exposure to view (e.g. medium term, long-distance, substantially screened or glimpsed views). Likely short or medium term but may be reversible.
Very low	Barely perceptible change to the existing view and/or very brief exposure to view.
None	No change to visual amenity/views.

1.3 Level of Effect

1.3.1 The significance of landscape and visual effects has been determined by considering the relationship between the sensitivity of the receptor and the magnitude of impact. **Table 10** provides a guide showing how these two elements are combined using the professional judgement of competent experts. Where this differs from the guide provided a reasoned explanation is provided within the assessment.

Table 10: Significance of Effect Guide

		Magnitude of Impact			
		High	**Medium**	**Low**	**Very Low**
Sensitivity	**High**	Major	Major or Moderate	Moderate or Minor	Minor or Negligible
	Medium-high	Major or Moderate	Major or Moderate	Moderate or Minor	Minor or Negligible

Medium	Major or Moderate	Moderate	Moderate or Minor	Minor or Negligible
Low-medium	Moderate or Minor	Moderate or Minor	Minor	Negligible
Low	Moderate or Minor	Moderate or Minor	Minor or Negligible	Negligible

1.3.2 Where the assessment concludes that there will be no impacts on a receptor, e.g. not visible in the view, this will be reported as no effect.

1.3.3 Following identification of the level of effect, an assessment of significance is provided. Major and moderate effects are considered to be significant in EIA terms. Minor, negligible, and no effects are considered not significant.

1.3.4 Whether effects are adverse, neutral or beneficial has been determined by considering the combination of the Proposed Development to the baseline.

1.3.5 Residual effects are those which remain at each assessment scenario with embedded or primary mitigation factored in, and which cannot be further mitigated by design or other measures.

1.4 Relationship to Glint and Glare Assessment

1.4.1 Consideration of glint and glare has been incorporated into the magnitude of landscape and visual effects based on the findings of the Glint and Glare Assessment provided at **Appendix 14-D: Glint and Glare Assessment [EN010154/APP/6.3]** of this ES.

1.5 Relationship to Residential Visual Amenity

1.5.1 The LVIA has assessed the potential visual effects to different types of visual receptor, including residents.

1.5.2 With reference to the Landscape Institute Technical Guidance Note 2/19: 'Residential Visual Amenity Assessment' (Ref 9), the Residential Visual Amenity Threshold is considered as to whether: *"the effect of the development on Residential Visual Amenity of such nature and / or magnitude that it potentially affects 'living conditions' or Residential Amenity."*

1.5.3 The guidance is based upon a four-stage approach. Stages 1 to 3 accord with the above LVIA methodology, whereby, in line with GLVIA3, visual receptors are identified, along with the magnitude of impact and the significance of effect. Stage 4 is a more detailed examination of views from residential properties, where the highest 'significance of effect' levels are identified via stages 1 to 3.

1.5.4 As stated by the guidance, there are no 'hard and fast rules' as to making a judgement on the Residential Visual Amenity Threshold. For the purposes of this LVIA, the threshold has been defined as the highest level of significant

adverse effects (i.e. major adverse) to residential receptors at year 15 of operation, i.e. post the establishment of the proposed mitigation.

1.5.5 However, the iterative design process has sought to embed mitigation such that this threshold has not been breached and therefore a specific Residential Visual Amenity Assessment has not been undertaken.

References

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Ref 4 Landscape Institute (2021). TNG 02-21: Assessing landscape value outside national designations. Available at: https://landscapewpstorage01.blob.core.windows.net/www-landscapeinstitute-org/2021/05/tgn-02-21-assessing-landscape-value-outside-national-designations.pdf

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Ref 7 Landscape Institute (2019) Visual Representation of Development Proposals – Technical Guidance Note 06/19. Available at: https://landscapewpstorage01.blob.core.windows.net/www-landscapeinstitute.org/2019/09/LI_TGN-06-19_Visual_Representation.pdf

Ref 8 Landscape Institute (2019). Residential Visual Amenity Assessment. Available at: https://landscapewpstorage01.blob.core.windows.net/www-landscapeinstitute-org/2019/03/tgn-02-2019-rvaa.pdf

Ref 9 Council of Europe Landscape Convention (n.d.). Definition and Legal Recognition of Landscapes. Available at: https://www.coe.int/en/web/landscape/definition-and-legal-recognition-of-landscapes

Ref 10 Notes and Clarifications on aspects of GLVIA 3, LI TGN-2024-01, Landscape Institute. Available at: https://www.landscapeinstitute.org/wp-content/uploads/2024/08/LITGN-2024-01-GLVIA3-NC_Aug-2024.pdf

Ref 11 Townscape Character Assessment, Technical Information Note 05/17 (2017), Landscape Institute. Available at:

https://www.landscapeinstitute.org/wp-content/uploads/2017/12/tin-05-2017-townscape.pdf