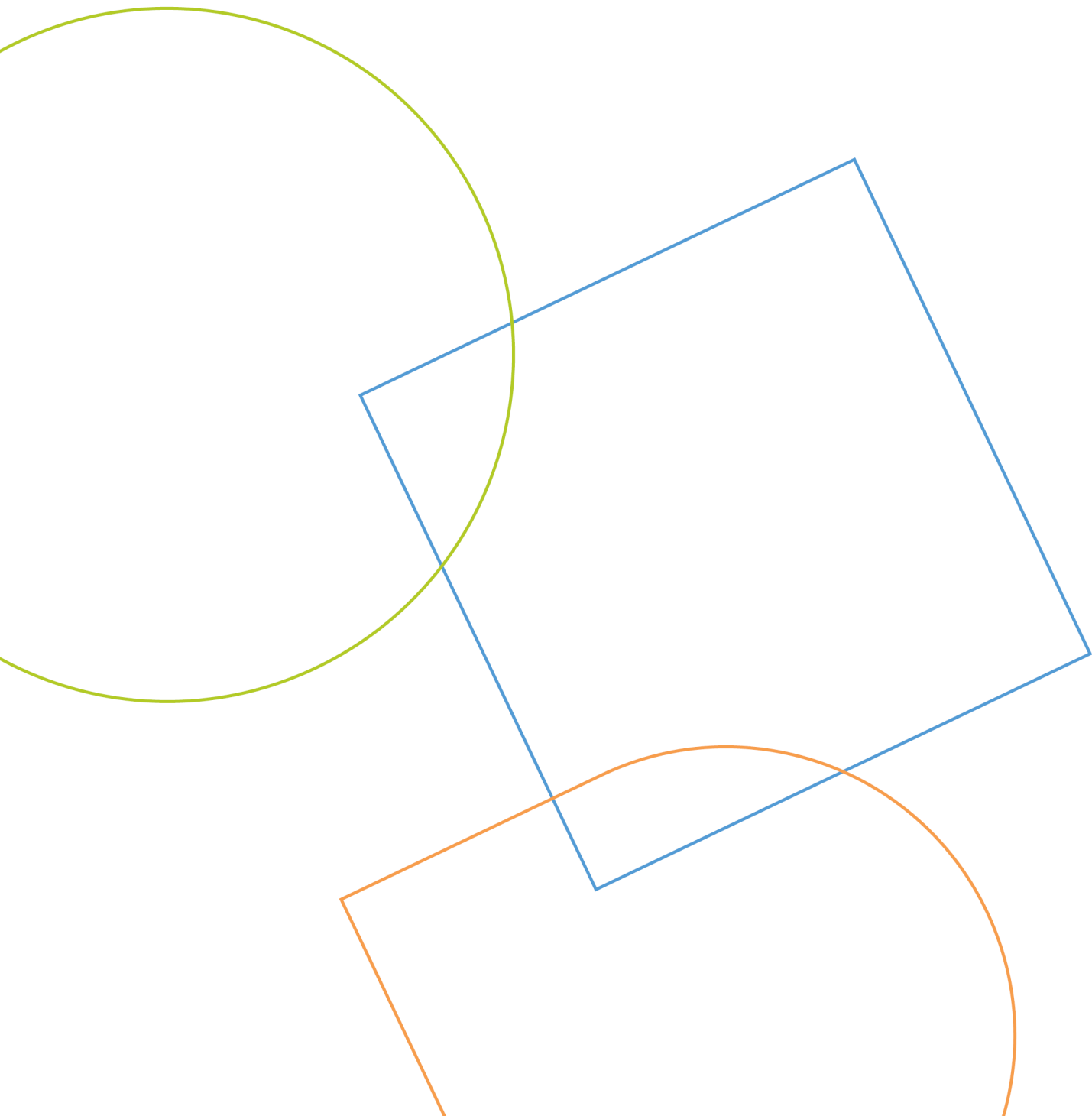




Westfield Energy Conservation Park
Environmental Statement – Volume 2 Appendices
Appendix 7.3 – LVIA Methodology



Environmental Statement Volume 2: Appendix 7.3 – LVIA Methodology

Westfield Energy Conservation Park

Lightrock Power Limited



July 2025

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1 Introduction

1.1.1 The assessment methodology follows the ‘Guidelines for Landscape and Visual Impact Assessment’ Third Edition (GLVIA3)¹. As recommended by GLVIA3, the process concentrates on principles and process and states (page X, Preface) that ‘It does not provide a detailed or ‘formulaic’ recipe that can be followed in every situation – it remains the responsibility of the professional to ensure that the approach and methodology adopted are appropriate to the task in hand’. The methodology that underpins the LVIA process is therefore tailored to be proportionate to the assessment and nature and location of the Scheme. The methodology also considers the following guidance:

- An Approach to Landscape Character Assessment (October 2014).²
- Landscape Institute (17 September 2019) Technical Guidance Note 06/19 Visual Representation of Development Proposals.³
- Landscape Institute (26 May 2021) Technical Guidance Note 02/21 Assessing landscape value outside national designations.⁴
- Landscape Institute Draft Technical Guidance Note 05/23 (July 2023) Notes and Clarifications on aspects of the 3rd Edition Guidelines on Landscape and Visual Impact Assessment (GLVIA3) – Consultation.⁵

1.1.2 GLVIA3 advises that LVIA must deal with and clearly distinguish between the assessment of landscape effects and the assessment of visual effects. This is set out in paragraphs 2.21 and 2.22:

“Reflecting this distinction the two components of LVIA are:

- *Assessment of landscape effects: assessing effects on the landscape as a resource in its own right;*
- *Assessment of visual effects: assessing effects on specific views and on general visual amenity experienced by people.*

The distinction between these two aspects is very important but often misunderstood, even by professionals. LVIA must deal with both and should be clear about the differences between them. If a professional assessment does not properly define them or distinguish between them, then other professionals and members of the public are likely to be confused.”

1.1.3 The significance of landscape and visual effects is determined through consideration of the sensitivity of the receptor and the magnitude of change. Sensitivity is judged through consideration of the value of the landscape or view, and the susceptibility of the receptor to change.

¹ Landscape Institute and Institute of Environmental Management and Assessment, 2013, Guidelines for Landscape and Visual Impact Assessment, 3rd Edition, Routledge, London.

² An Approach to Landscape Character Assessment (October 2014) (Christine Tudor, Natural England) Countryside Agency and Scottish Natural Heritage (SNH), (2002) Landscape Character Assessment: Guidance for England and Scotland. [Online] Available at [landscape-character-assessment.pdf](https://publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/101111/landscape-character-assessment.pdf) (publishing.service.gov.uk) (Last accessed 13/12/2021)

³ Landscape Institute (1 September 2019) Technical Guidance Note 06/19 Visual Representation of Development Proposals

⁴ Landscape Institute (26 May 2021) Technical Guidance Note 02/21 Assessing landscape value outside national designations

⁵ Landscape Institute Draft Technical Guidance Note 05/23 (July 2023) Notes and Clarifications on aspects of the 3rd Edition Guidelines on Landscape and Visual Impact Assessment (GLVIA3) – Consultation

- 1.1.4 The time period for the assessment covers the construction of the Scheme and associated infrastructure, to completion of the works and the commencement of its operation and decommissioning, including identification of residual effects. Matters of residual effects are set out in Figure 4.7 of GLVIA3
- 1.1.5 The assessment involves a process of iterative design and re-assessment of any remaining, residual effects that would not otherwise be mitigated or ‘designed out’. The type of effect is also considered and may be direct or indirect; temporary or permanent (reversible); and positive, neutral, or negative. The landscape and visual appraisals unavoidably involves a combination of both quantitative and qualitative assessment and wherever possible a consensus of professional opinion is sought through consultation, internal peer review, and the adoption of a systematic, impartial, and professional approach.

2 Terminology

2.1.1 A description of the definitions, scope and context of the terminology used in the LVIA process is provided in the Glossary in Table 16 of this methodology.

2.1.2 GLVIA3 (paragraph 1.15) identifies with regard to impacts, effects and significance that ‘Terminology can be complex and potentially confusing in this area, particularly in the use of the words ‘impact’ and ‘effect’ in LVIA within EIA and SEA’. In this case, it encourages the consistent use of the terms ‘impact’ and ‘effect’ but recognises that there may be circumstances where this is not appropriate, for example where other practitioners involved in an EIA are adopting a different convention and states that:

“This applies to ‘appraisals’ of landscape and visual impacts outside the formal requirements of EIA as well as those that are part of formal assessment.”

2.1.3 For the purpose of the LVIA process, the methodology adopts the consistent use of terms to ensure that the same meaning and ultimate judgements are applied in a transparent way throughout the assessment process. Clarity on the use of terms in the LVIA process is set out below.

Sensitivity of Receptor

2.1.4 This judgement is established by considering the concept of value of the receptor combined with the susceptibility of the receptor to specific change. The combination of these two criteria then inform the sensitivity of landscape and visual receptors as set out in Sections 1.1.51 to 1.1.55 and 1.1.74 to 1.1.76.

2.1.5 For the purpose of the LVIA process, a receptor sensitivity is classified on a four-point scale of: very low, low, medium, and high (refer to Tables 7.1.4 and 7.1.10). This division is not black and white and in reality, there will be a gradation in the judgement of sensitivity of receptor.

Resource / Receptor Value

2.1.6 The concept of value of the receptor is related to a range of factors and indicators. This list of factors is not fixed as the criteria need to be appropriate to each designation process.

2.1.7 In terms of value of the Landscape Character Types or Areas, this would, for example, relate to any designations at both national and local levels, and where there are no designations, judgements are based on criteria set out within the Landscape Institute technical guidance note (TGN)⁶ that provides information and guidance to landscape professionals and others who need to make judgements about the value of landscapes (outside national landscape designations).

2.1.8 In terms of the value of local landscape designations, this would for example relate to locally valued landscapes such as Special Landscape Areas or Areas of Great Landscape Value. For these receptors, it is necessary to understand their reasons for designation and to examine how the criteria relate to the area in question in order to make judgements on their value.

⁶ Landscape Institute (26 May 2021) Technical Guidance Note 02/21 Assessing landscape value outside national designations

- 2.1.9 In terms of visual receptors, this would for example relate to recreation and enjoyment and to the recognition attached to a particular view by visitors (through appearances in guidebooks or on tourist maps and the provision of facilities such as car parking and interpretation). These visual receptors would include road users, walkers, and horse riders, but would also include users of waterways (boats), leisure cyclists and train users, where appropriate.
- 2.1.10 In terms of landscape receptors, this would for example relate to local distinctiveness and sense of place where the landscape may be designated for its cultural associations.
- 2.1.11 For the purpose of the LVIA process, a receptor value is classified on a four-point scale of: very low, low, medium, and high (refer to Tables 7.1.1 and 7.1.8). This division is not black and white and in reality, there will be a gradation in the judgement of resource/receptor value.

Susceptibility to Change

- 2.1.12 Susceptibility to change is not recorded as part of the baseline situation but is instead considered as part of the assessment of effects and tailored to the project.
- 2.1.13 In terms of landscape receptors, susceptibility to change means the ability to accommodate the Scheme without undue consequences for the maintenance of the baseline situation and/or achievement of landscape planning policies and strategies.
- 2.1.14 In terms of visual receptors, this is a product of the occupation or activity of people experiencing the view and the extent to which their attention or interest may therefore be focused on the views and visual amenity they experience.
- 2.1.15 For the purpose of the LVIA process, susceptibility to change is classified on a four-point scale of: very low, low, medium, and high (refer to Tables 7.1.3 and 7.1.9). This division is not black and white and in reality, there will be a gradation in the judgement of susceptibility to change.

Magnitude of Change

- 2.1.16 Magnitude of change is gauged by assessing the type and amount of change predicted to occur as a result of the Scheme in relation to the specific landscape or visual receptor. Factors influencing the magnitude of change include: size or scale; geographical extent; and duration and reversibility of effect as set out in Sections 1.1.56 to 1.1.64 and 1.1.86 to 1.1.93.
- 2.1.17 For the purpose of the LVIA process, the overall magnitude of change is classified on a four-point scale of: very low, low, medium, and high (refer to Tables 7.1.7 and 7.1.12). This division is not black and white and in reality, there will be a gradation in the judgement of magnitude of change.

Significance of Effects

- 2.1.18 Significance of landscape and visual effects is gauged by considering the magnitude of change along with the sensitivity of the receptor using professional judgement.
- 2.1.19 For the purpose of the LVIA process, the significance of effects is set out within Section 6, for example: negligible, minor, moderate to minor, moderate, major to moderate and major

(Table 7.1.13). This division is not black and white and in reality, there will be a gradation in the judgement of significance of effects.

- 2.1.20 In line with best practice guidance set out in GLVIA3 (paragraph 1.17), in addition to assessing significance, effects are classified as: beneficial (positive), adverse (negative) or neutral, as well as direct and indirect. An effect is understood to be neutral when the predicted residual change would, on balance, result in neither an improvement, nor a deterioration of the landscape and visual resource compared with the existing situation.

3 Assessment Approach

- 3.1.1 The assessment of landscape character and visual amenity is both a subjective and objective process. Whilst subjectivity can never be removed, by following a systematic and robust step by step process, rational and transparent conclusions can be drawn.
- 3.1.2 The process of LVIA is therefore based on the following principles and processes:
- Baseline appraisal including desk based and field surveys to identify the nature of the existing landscape and visual resource;
 - Identification of the individual landscape and visual receptors likely to experience change from the Scheme and a description of the effects, both adverse and beneficial;
 - An assessment of the significant effects identified; and
 - Identification of any additional mitigation or monitoring measures that may be required.
- 3.1.3 In accordance with GLVIA3 (paragraphs 2.20 and 2.21), the assessment of landscape and visual effects are separate but linked procedures; the landscape is assessed as an environmental resource in its own right, whereas visual effects are assessed on views and visual amenity experienced by people.
- 3.1.4 Landscape effects are concerned with the effects of the Scheme on the character of the landscape, combined with an understanding of the proposed change or development Key steps in the process defined by GLVIA3 (paragraph 5.34), are as follows.
- *“The first step is to identify the components of the landscape that are likely to be affected by the scheme, often referred to as the landscape receptors, such as overall character and key characteristics, individual elements or features, and specific aesthetic or perceptual aspects.*
 - *The second step is to identify interactions between these landscape receptors and the different components of the development at all different stages, including construction, operation and, where relevant, decommissioning and restoration/reinstatement.”*
- 3.1.5 Visual effects are concerned with changes in available views of the landscape and the effect of those changes on people, often referred to as visual receptors. A range of issues to assist in describing effects on views (not restricted to) are defined in GLVIA3 (paragraph 6.27), as follows:
- *The nature of the view of the scheme, for example a full or partial view or only a glimpse;*
 - *The proportion of the scheme or particular features that would be visible (such as full, most, small, part, none);*
 - *The distance of the viewpoint from the development and whether the viewer would focus on the development due to its scale and proximity or whether the development would be only a small minor element in a panoramic view.*
 - *Whether the view is stationary or transient or one of the sequences views as from the footpath or moving vehicle*

- *The nature of the change's which must be judged individually for each project but may include, for example, changes in the existing skyline profile, creation of a new visual focus in the view, introduction of new man made objects, changes in visual simplicity or complexity, alteration of visual scale and change to the degree of visual enclosure.*

3.1.6 It is important to recognise that the LVIA process is an integral part of the design process. Following an initial assessment of the baseline conditions and consultation, the embedded mitigation and enhancement measures are fed back into the development proposals and its design as part of an iterative approach.

Consultation

3.1.7 In terms of consultation, the Guidelines for Landscape and Visual Impact Assessment notes that *"In general the EIA procedures only formally require consultation with the public at the stage of submission and review of the Environmental Statement, although in some cases there may be a requirement for pre-application consultation. Nevertheless, there are considerable benefits to be gained from involving the public in early discussion of the proposals and of the environmental issues that may arise. This can make a positive contribution to scoping the landscape and visual issues".⁷*

3.1.8 The Guidance also notes that: *"Consultation is an important part of the Landscape and Visual Impact Assessment process, relevant to many of the stages described above. It has a role in gathering specific information about the site, and in canvassing the views of the public on the proposed development. It can be a valuable tool in seeking understanding and agreement about the key issues and can highlight local interests and values which may otherwise be overlooked. With commitment and engagement in a genuinely open and responsive process, consultation can also make a real contribution to scheme design".⁸*

⁷2013, Guidelines for Landscape and Visual Impact Assessment, 3rd Edition, Routledge, London Paragraph 3.40

⁸ 2013, Guidelines for Landscape and Visual Impact Assessment, 3rd Edition, Routledge, London Paragraph 3.42

4 Baseline Assessment

4.1.1 GLVIA3 sets out the requirements of the Baseline Assessment as follows:

- *For the landscape baseline the aim is to provide an understanding of the landscape in the area that may be affected – its constituent elements, its character and the way this varies spatially, its geographic extent, its history (which may require its own specialist study), its condition, the way the landscape is experienced, and the value attached to it.*
- *For the visual baseline the aim is to establish the area in which the development may be visible, the different groups of people who may experience views of the development, the places where they will be affected and the nature of the views and visual amenity at those points.*

4.1.2 The landscape and visual baseline conditions of the assessment are established by undertaking a detailed desk study, fieldwork, and analysis of findings to create a detailed understanding of the existing landscape and visual context of both the site and surrounding landscape within the proposed study area.

4.1.3 Together, the established baseline provides an understanding of the components of the landscape and visual resource that may be affected by the Scheme, which includes the identification of key landscape and visual receptors which represent the existing situation. The baseline for the LVIA process is of sufficient detail to enable a well-informed assessment of the likely landscape & visual effects on the baseline conditions.

4.1.4 The desk and field-based assessment involves the following key activities:

- Familiarisation with the landscape and visual resources of the area through site visits and fieldwork within which the Scheme would be located;
- Identification of landscape and visual resources through site visits and fieldwork likely to be significantly affected by the Scheme;
- Preparation of Zone of Theoretical Visibility (ZTV) maps;
- Identification of the location of viewpoints, informed by site visits /fieldwork and the ZTV, that are used to inform the assessment of effects of both landscape and visual resources; and
- Identification of suitable study areas for the LVIA.

4.1.5 Field work is undertaken by a Chartered Landscape Architect, from a car, bicycle or on foot.

Landscape Baseline

4.1.6 The landscape baseline is established by undertaking a detailed desk study including a review of published Landscape Character Assessments, fieldwork, and analysis of findings to create a detailed understanding of the existing landscape context of both the site and surrounding landscape within the study area. The desk-based assessment begins with a review of legislation, policy and guidance including published landscape and townscape character assessments of the area and its wider context.

4.1.7 The baseline for assessing landscape effects addresses the effects of change and development on the landscape as a resource i.e.:

- The landscape components which contribute to the character of the landscape; topography, landcover, land use, vegetation, settlement and buildings for example;
- The aesthetic and perceptual aspects of the landscape;
- Landscape character and the key characteristics that contribute it.

Visual Baseline

- 4.1.8 The visual baseline establishes the areas from where the new components of the Scheme would be seen, who would see them, the places where those who would see them would be affected and the nature of views and visual amenity. Photography is used to record this.
- 4.1.9 This includes the identification of key receptors and viewpoints which represent such receptors. In order to assist with viewpoint selection and to appreciate the potential influence of the development in the wider landscape, preliminary ZTV plans may be used. ZTV plans illustrate the area from where it may be theoretically possible to view all, or part, of the proposed development. Viewpoints are illustrated on a plan and accompanied by a photographic record.
- 4.1.10 The visual assessment aims to determine from which points the Proposed Development can be seen in the surrounding landscape; this is known as the visual envelope. Once determined, a series of key representative viewpoints are chosen (i.e. areas within the visual envelope from where it may be possible to see the Proposed Development from publicly accessible viewpoints), such as residential areas, public open spaces, PRoW / public footpaths and roads.
- 4.1.11 Viewpoints identified through consultation and during desk studies are ground-truthed through fieldwork and their positions fixed prior to photography being undertaken. Landscape character types (LCTs) are reviewed during fieldwork and the descriptions contained in the published landscape character assessment are augmented where necessary. Landscape and visual receptors are also assessed to ensure they are accurately represented through desk-based assessment.
- 4.1.12 The baseline for assessing visual effects establishes the area from which Scheme may be visible and the nature and number of different groups of people (receptors) who are likely to experience change. For assessing visual effects, the receptors may include:
- Users of properties: such as residents, employees or visitors;
 - Users of public rights of way: public footpaths, bridleways, byways and permissive paths;
 - Users of transport routes: main roads and residential streets; and
 - Users of places accessible to the public including open space areas, gardens and other destinations.

5 Approach to Mitigation

5.1.1 In accordance with the EIA Regulations, measures proposed to prevent/avoid, reduce and where possible offset or remedy (or compensate for) any significant adverse landscape and visual effects are described. The LVIA takes the following approach to mitigation and what is required in the process of assessment of both the landscape and visual effects. Mitigation measures are considered to fall into the categories of: Embedded mitigation, developed through the iterative design process and integrated or embedded into the project design; standard construction and operational management practices; and Additional mitigation, specifically intended to address significant residual adverse effects but not built into the Scheme.

Embedded Mitigation

5.1.2 Paragraph 4.21 to 4.27 of GLVIA3 describes the approach to the mitigation hierarchy of landscape and visual effects. In line with this the LVIA process would ensure that through an iterative design process the design of the scheme and mitigation occurs in parallel with the EIA process through consideration of the various stages of an EIA including:

5.1.3 Embedded mitigation is informed by the following;

- Feasibility
- Scoping
- Post scoping – scoping opinion
- Co design initial consultation
- Design evolution
- Statutory consultation
- Post consultation design refinement
- Detailed Design and optimisation

5.1.4 The approach combines site assessment, defines site parameters, provides site refinement and mitigation; together with an integrated approach to environmental constraints and consultation responses. This would ensure that the final design would embed mitigation in an integrated way to reduce any potential significant effects from the Development on identified receptors.

5.1.5 Embedded mitigation forms an integral, committed and deliverable part of the Scheme design and can also comprise standard construction practices. They are assumed to be implemented and are therefore factored into the assessment process. Embedded mitigation is taken into account during the construction, operation (Year 1 and Year 15) and decommissioning stages of the Scheme.

5.1.6 The mitigation measures are iterative and modify the scale and layout of the Scheme and also strive to achieve to raise the bar of acceptability in terms of planning policy compliance. Embedded mitigation can include modifications to siting, access, layout, buildings, structures, ground modelling and landscaping (including conservation of existing vegetation and new planting). These measures aim to ensure a reasonable balance of viability and to meet with policy expectations and importantly must be deliverable.

5.1.7 It is expected that these measures would be implemented as they are to be an integral part of the scheme. They would therefore be secured by conditions on a consent.

5.1.8 A detailed list of examples of embedded mitigation considered in the LVIA which may mitigate or reduce the effects of the scheme is provided in the table below:

Table.5.1. Examples of Embedded Mitigation

Initial Assessment	Information obtained from work undertaken as part of the desk based and feasibility assessment that informs the design process. Information obtained from an assessment and understanding of the site from initial site visit and scoping stage that informs the design process. Information gathered and observed through subsequent site visits undertaken during the ES process including an understanding of the key characteristic features of the site and surrounding landscape character. Undertaking of an initial high level site parameters plan based on OS and GIS data sets and inclusions of information from site visits and surveys by the landscape architect and other consultants. Consultation through non statutory Co:Design workshops and statutory consultation as part of the DCO process. Undertaking of detailed parameters planning based on topographical survey data and integrating data from other disciplines such as ecology, arboriculture, archaeology, heritage, glint and glare, transport, flood risk and drainage, acoustics noise, and vibration, and agricultural land value (not exhaustive). This data will be available at various stages of the design evolution and detailed information is collated throughout the process until the scheme design is fixed. These parameters will be used to develop and ultimately fix the layout whilst providing sufficient areas for any proposed mitigation to be capable of being implemented and in terms of planting maturing to the desired height, width and function. Detailed design and assessment through the LVIA which informs the siting of the development, its design and likely materials would be undertaken in line with the above and would be subject to final design refinement prior to design fix.
Site Design	Preparation of Parameters which define the location of the solar panels and associated infrastructure, their spatial arrangement in the landscape and materials associated with the development including transformers and sub stations. Retention of natural features of the site and surrounding landscape such as topography, watercourses, designations both statutory and non-statutory, woodland and vegetation, hedgerows. Retention of existing structures and buildings.

Mitigation	Existing features Gapping up of existing hedgerows and supplementary woodland/vegetation planting, changes to management of hedgerows and woodland/vegetation to improve quality, height, width or to ensure the existing features are suitable for long term mitigation and management associated with the mitigation requirements of landscape and visual receptors. Restoration or retention of existing earthworks. Restoration or retention of Existing boundary structures/features such as fencing, walls, earth mounds. Restoration of historic hedgerows and woodland/vegetation in the landscape. New Planting Planting of new hedgerows, woodlands, shelterbelts, scrub, individual trees and vertical/woody vegetation aligned to landscape character. Planting of wildflowers and grassland to improve the overall landcover associated with solar farms and any other landscape features required for mitigation of effects at construction, year 1, and year 15 and decommissioning. Forward planting that may be required to mitigate effects. Proposed earthworks associated with the screening of components of the scheme. Proposed boundary structures/features such as fencing, walls, earth mounds to screen development. Measures for the management of vegetation at year 15 post construction or at decommissioning stages to ensure that the management of the mitigation and its establishment is adequate. This provides a robust response in relation to pressures on embedded mitigation such as planting for example as a result of climate change and growing prevalence of arboreal diseases and changing landscape character.
Construction and Management controls	Construction and Environmental Management Plan (CEMP) would control the construction process to ensure appropriate practices are followed to enable the above to be secured. Landscape and Environmental Management Plan (LEMP) would control how mitigation is implemented and managed to achieve the outcomes relied upon in the LVIA and as part of the DCO. The above documents would be subject to a DCO condition ensuring their delivery.

- 5.1.9 The above shows examples of the LVIA approach to embedded to ensure the LVIA responds as sensitively as possible to the landscape and visual resources on site and in the surrounding landscape.
- 5.1.10 The embedded mitigation would provide the best possible fit of the scheme within the landscape and consequently in views of the landscape from receptors being assessed.

Additional Mitigation

- 5.1.11 Additional mitigation is that over and above the embedded mitigation that may be required and has the potential to mitigate any significant adverse effects identified following the assessment of the Scheme inclusive of its embedded mitigation.
- 5.1.12 Additional mitigation measures are those that are not built into the final development of the Scheme and are considered in relation to the assessment of the landscape and visual effects of the Scheme as the means of addressing the significant adverse residual effects identified.
- 5.1.13 As additional mitigation measures are not incorporated in the Scheme being assessed, there will need to be careful consideration of how they can be secured. In an ideal world, applying Landscape and Visual Impact Assessment as an iterative planning and design tool would allow all necessary and desirable mitigation to be embedded into the project design, such that additional mitigation should not prove necessary.
- 5.1.14 Where significant effects remain, following the implementation of embedded mitigation and achievable further measures would lower the identified effect, the assessment shall identify what (if any) additional mitigation applicable and explain how this would be secured, for example via a specific DCO requirement or via a management plan, or document secured by a DCO requirement such as the CEMP or LEMP. An example of such mitigation could be temporary fencing to reduce glint and glare for visual receptors until planting has established on site.

Enhancement

- 5.1.15 Where relevant, enhancement measures are identified. Enhancement measures are not required to mitigate significant effects of the Scheme as any enhancement that could achieve this should form part of the iterative design process and be assessed accordingly, and are not factored into the determination of residual effects. They are further measures which would have additional beneficial outcomes should they be implemented. Examples of enhancement may be improvements to the local Public Rights of Way (PRoW) network such as footpath improvements, bridges, gates or stiles; interpretation boards; community orchards for example and are usually derived through the consultation process. They may also form part of embedded ecological mitigation for example but not contribute to a reduction in landscape or visual effects.

6 Assessment of Landscape Effects

Assessing Landscape Sensitivity

- 6.1.1 The sensitivity of landscape receptors is assessed through consideration of their value and susceptibility to change. The process for determining landscape sensitivity is set out below.

Landscape Value

- 6.1.2 For landscape receptors, value concerns the importance of the landscape resource as evidenced by the presence of landscape designations and professional judgement. Susceptibility is concerned with the landscape's ability to absorb change brought about by the Scheme.
- 6.1.3 The European Landscape Convention⁹ promotes the need to take account of all landscapes, with less emphasis on the special and more recognition that ordinary landscapes, such as community landscapes also have their own value. GLVIA3 paragraph 5.19 also recognises that relative value is attached to different landscapes and states that *"value can apply to areas of landscape as a whole, or to individual elements, features and aesthetic or perceptual dimensions which contribute to the character of the landscape."* And that *"the value attached to undesignated landscapes also needs to be carefully considered and individual elements of the landscape – such as trees, buildings or hedgerows – may also have value."*
- 6.1.4 To assess the value attached to undesignated landscapes, criteria are set out within the Landscape Institute Technical Guidance Note 02/21¹⁰ (TGN 02/21) (Table A2.15 2020).
- 6.1.5 Table 2 below illustrates the selection of criterion used for assessing the value of undesignated landscapes within TGN 02/21.

Table 6.1. Criterion for Assessing the Value of Undesignated Landscapes

Factor	Definition	Examples of evidence
Natural heritage	Landscape with clear evidence of ecological, geological, geomorphological or physiographic interest which contribute positively to the landscape	Landscape character assessment. LANDMAP Geological Landscape and Landscape Habitats Aspects (in Wales). Ecological and geological designations. SSSI citations and condition assessments. Geological Conservation Review.

⁹ The European Landscape Convention for the UK. Available online at <https://www.gov.uk/government/publications/european-landscape-convention-guidelines-for-managing-landscapes>

¹⁰ Landscape Institute, *'Technical Guidance Note (TGN) 02/21 Assessing landscape value outside national designations'*, May 2021

		Habitat surveys. Priority habitats. Nature recovery networks/ nature pathways. Habitat network opportunity mapping/ green infrastructure mapping. Catchment management plans. Ecosystem services assessment/ schemes. Specialist ecological studies.
Cultural heritage	Landscape with clear evidence of archaeological, historical or cultural interest which contribute positively to the landscape.	Landscape character assessment. LANDMAP Historic Landscape and Cultural Landscape Services Aspect (in Wales). Historic environment and archaeological designations. Conservation Area appraisals, Village Design Statements. Historic maps. Historic landscape character assessments, Historic Land Use Assessment and Historic Area Assessments. Place names. Specialist heritage studies.
Landscape condition	Landscape which is in a good physical state both with regard to individual elements and	Landscape character assessment. LANDMAP condition and trend questions (in Wales).

	overall landscape structure.	Hedgerow/ tree surveys. Observations about intactness/ condition made in the field by the assessor. SSSI condition assessments. Historic landscape character assessments/ map regression analysis.
Associations	Landscape which is connected with notable people, events and the arts	Information about arts and science relating to a place. Historical accounts, cultural traditions and folklore. Guidebooks/ published cultural trails. LANDMAP Cultural Landscape Services aspect (in Wales).
Distinctiveness	Landscape that has a strong sense of identity	Landscape character assessment. LANDMAP Visual & Sensory question 3 and 25, – Historic Landscape question 4 (in Wales). Guidebooks Observations about identity/ distinctiveness made in the field by the assessor.
Recreational	Landscape offering recreational opportunities where experience of landscape is important	Definitive public rights of way mapping/ OS map data. National Trails, long distance trails, Coastal Paths, Core Paths. Open access land (including registered common land). Database of registered town or village greens Visitor surveys/ studies. Observations about recreational use/ enjoyment made in the field by the assessor.

Perceptual (Scenic)	Landscape that appeals to the senses, primarily the visual sense	Landscape character assessment LANDMAP Visual and Sensory scenic quality question 46 (in Wales). Protected views, views studies. Areas frequently photographed or used in images used for tourism/ visitor/ promotional purposes, or views described or praised in literature. Observations about scenic qualities made in the field by the assessor. Conservation Area Appraisals Village Design Statements, or similar.
Perceptual (Wildness and tranquillity)	Landscape with a strong perceptual value notably wildness, tranquillity and/or dark skies	Tranquillity mapping and factors which contribute to and detract from tranquillity. Dark Skies mapping. Wildness mapping, and Wild Land Areas in Scotland. Land cover mapping. Field survey LANDMAP. Visual and Sensory Aspect.
Functional	Landscape which performs a clearly identifiable and valuable function, particularly in the healthy functioning of the landscape	Land cover and habitat maps. Ecosystem services assessments and mapping (particularly supporting and regulating services). Green infrastructure studies/strategies. Development and management plans for nationally-designated landscapes, Local Plans and SPDs.

		Landscape character assessments.
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Landscape Value

6.1.6 Table 3 below illustrates the criteria for determining the value of the identified landscape receptors.

Table 6.2: Landscape Receptor Value

Landscape Value	Recognition	Features / Quality	Condition
High	Typically, a landscape / feature of international or national recognition e.g., World Heritage Sites, National Landscapes, National Parks, Scheduled Monuments and Grade I and II* Listed Buildings, Registered Parks and Gardens	A strong sense of place with landscape / features worthy of conservation; Absence of detracting features.	A very high-quality landscape / feature; attractive landscape / feature; exceptional
Medium	Regional recognition e.g., Conservation Areas; Grade II Listed Buildings, Registered Parks and Gardens	A number of distinguishing features worthy of conservation; evidence of some degradation and occasional detracting features.	Ordinary to good quality landscape / feature with some potential for substitution; a reasonably attractive landscape / feature.
Low	Undesignated, but locally valued landscape / features	Few landscape features worthy of conservation; evidence of degradation with some detracting features.	Ordinary landscape / feature with high potential for substitution; quality that is fairly commonplace.
Very Low	Typically, an undesignated landscape / feature.	No landscape features worthy of conservation; evidence of degradation with many detracting features.	Very low quality landscape / feature with very high potential for substitution; limited variety or distinctiveness; commonplace

Susceptibility of the Landscape Receptors to Change

6.1.7 This means the ability of the landscape receptor (whether it be the overall character or quality/condition of a particular landscape type or area, or an individual element and/or feature, or a particular aesthetic and perceptual aspect) to accommodate the Scheme without undue consequences for the maintenance of the baseline situation and/or the achievement of landscape planning policies and strategies.¹¹

6.1.8 Table 4 below illustrates the criteria for determining the susceptibility to change of the identified landscape receptor:

Table 6.3: Landscape Receptor Susceptibility to Change

Landscape Susceptibility	Criterion
High	The landscape receptor is highly susceptible to the Scheme, and a low ability to accommodate the specific proposed change, because the key characteristics of the landscape have no or very limited ability to accommodate the specific proposed change without undue adverse effects taking account of the existing character and quality of the landscape, and/or achievement of relevant planning policies and strategies.
Medium	The landscape receptor is moderately susceptible to the Scheme, and a moderate ability to accommodate the specific proposed change, because the relevant characteristics of the landscape have some ability to accommodate it without undue adverse effects, taking account of the existing character and quality of the landscape, and/or achievement of relevant planning policies and strategies.
Low	The landscape receptor has low susceptibility to the Scheme, and a high ability to accommodate the specific proposed change, because the relevant characteristics of the landscape are generally able to accommodate it with little, or no, undue consequences for the maintenance of the baseline situation, taking account of the existing character and quality of the landscape.
Very Low	Very high ability to accommodate the specific proposed change; no undue consequences for the maintenance of the baseline situation (receptor value) and/or achievement of relevant planning policies and strategies.

¹¹ Landscape Institute Guidelines for Landscape and Visual Impact Assessment, 3rd Edition, Paragraph 5.40, Page 88.

Landscape Sensitivity

- 6.1.9 GLVIA3 (paragraph 5.39) indicates that combining susceptibility and value can be achieved in a number of ways and needs to include professional judgement. However, it is generally accepted that a combination of high susceptibility and high value is likely to result in the highest sensitivity, whereas a low susceptibility and low value is likely to result in the lowest level of sensitivity. It should be noted that the levels are indicative and in practice there is not a clear distinction between criteria levels.
- 6.1.10 Table 5 provides a summary of the likely characteristics of the differing levels of sensitivity of the landscape receptor.

Table 6.4: Landscape Receptor Sensitivity Criterion

Landscape Sensitivity	Characteristics
High	Landscape character, characteristics, and elements where, through consideration of the landscape resource and characteristics, there would generally be a lower landscape tolerance or scope for landscape change or positive enhancement, and higher landscape value and quality. Often includes landscapes which are highly valued for their scenic quality, including most statutorily (nationally / internationally designated landscapes). Elements/features that could for example be described as unique or are nationally scarce. Mature vegetation with provenance such as ancient woodland or mature parkland trees, and/or mature landscape features which are characteristic of and contribute to a sense of place and illustrates time- depth in a landscape and if replaceable, would for example not be replaced other than in the long term.
Medium	Landscape character, characteristics, and elements where, through consideration of the landscape resource and characteristics, there would be a medium landscape tolerance or some scope for landscape change. Often includes landscapes of medium landscape value and quality which may be locally designated. Areas that have a positive landscape character but include some areas of alteration/degradation/or erosion of features. Perceptual/aesthetic aspects has some vulnerability to unsympathetic development; and/or features/elements that are locally commonplace; unusual locally but in moderate/poor condition; or mature vegetation that is in moderate/poor condition or readily replicated.
Low	Landscape character, characteristics, and elements where, through consideration of the landscape resource and characteristics, there would

Landscape Sensitivity	Characteristics
	be higher landscape tolerance or scope for landscape change or positive enhancement. Damaged or substantially modified landscapes with few characteristic features of value. Capable of absorbing major change, and landscape elements/features that might be considered to detract from landscape character such as obtrusive man-made features.
Very Low	Landscape character, characteristics, and elements where there is a high landscape tolerance or a planned desire for landscape change. Usually applies to landscapes with a lower landscape susceptibility or higher landscape tolerance for the Scheme. May also apply to derelict landscapes, spoil heaps, and de-graded urban fringe areas that require restoration or re- development / re-planting. Areas that are relatively bland or neutral in character with few/no notable features. A landscape that includes areas of alteration/degradation or erosion of features, and/or landscape elements/features that are commonplace or make little contribution to local distinctiveness. Opportunities for the restoration of landscape through mitigation measures associated with the proposal.

6.1.11 The judgement on landscape sensitivity as explained above is based on consideration of both the landscape receptor's value and its susceptibility to change arising from the Scheme.

6.1.12 Table 6 below illustrates how landscape value and susceptibility are combined to determine the level of landscape sensitivity.

Table 6.5: Matrix for Determining Landscape Sensitivity

Landscape Susceptibility				
	High	Medium	Low	Very Low
Landscape Value				
High	High	High to Medium	Medium	Medium to Low
Medium	High to Medium	Medium	Medium to Low	Low

Low	Medium	Medium to Low	Low	Low to Very Low
Very Low	Medium to Low	Low	Low to Very Low	Very Low

Magnitude of Landscape Change

- 6.1.13 The determination of the magnitude of landscape change combines an assessment of the size or scale of change likely to be experienced as a result of each effect¹², the geographical extent of the area likely to be influenced and the duration and reversibility of effects.

Size or Scale

- 6.1.14 Judgements are needed about the size or scale of change in the landscape that is likely to be experienced as a result of each effect. GLVIA3 (paragraph 5.49), states that *“The judgements should, for example, take account of:*

- *The extent of the existing landscape elements that would be lost, the proportion of the total extent that this represents and the contribution of that element to the character of the landscape – in some cases this may be quantified;*
- *The degree to which aesthetic and perceptual aspects of the landscape are altered either for example, removal of existing components of the landscape or by addition of new ones – for example, removal of hedges may change a small scale, intimate landscape into a large-scale, open one, or introduction of new buildings or tall structures may alter open skylines;*
- *Whether the effects change the key characteristics of the landscape, which are critical to its distinctive character.”*

Geographical Extent

- 6.1.15 The geographical area over which the landscape change would be experienced is also considered. This is dependent upon the nature of the proposal and the scale of effects upon the receiving landscape/landscapes; however, GLVIA3 (paragraph 5.49), notes that, in general effects may have an influence at varying scales and states that *“this will vary according to the nature of the project and may not always be relevant on every occasion:*

- *at the site level, within the proposed development site itself;*
- *at the level of the immediate setting of the site;*
- *at the scale of the landscape type or character area within which the proposal lies;*
- *on a larger scale, influencing several landscape types or character areas.”*

Duration and Reversibility of the Landscape Effects

- 6.1.16 GLVIA3 (paragraph 5.51), notes that duration and reversibility are separate but linked considerations. Duration can usually be simply judged on a scale such as:

- Short-term: 0-5 years;

¹² Guidelines for Landscape and Visual Impact Assessment (page 90)

- Medium-term: 5-10 years; and
- Long-term: 10-40 years (or longer).

6.1.17 Reversibility is a judgement about whether or not the Scheme can be removed, and once removed whether the landscape can be reinstated and/or fully restored. GLVIA3 notes at paragraph 5.52 that *“Mineral workings may be partially reversible in that the landscape can be restored to something similar to, but not the same as, the original...Duration and reversibility can sometimes usefully be considered together, so that a temporary or partially reversible effect is linked to definition of how long that effect will last”*.

6.1.18 Table 7 below indicates the type of land use and the respective assessment of reversibility defined by GLVIA3 (paragraph 6.41).

Table 6.7: Magnitude of Landscape Change: Duration and Reversibility

Category	Description
Permanent	Permanent, is irreversible change to the landscape, such as housing development, as it not possible to remove such a development and restore the land to the original state.
Partially Reversible	Partially Reversible, is change to the landscape, where the landscape can be restored to something similar to the landscape that was removed. For example, mineral developments, as it is possible to restore the land to something similar to the original state, but not the same state.
Reversible	Reversible, is change to the landscape where the landscape can be fully restored. For example, a marine fish farm development, as it is possible to wholly remove the remove such a development and to restore the landscape to the original state. This also includes construction activities which are of temporary nature.

Overall Magnitude of Landscape Change

6.1.19 The overall magnitude of landscape change combines size and scale, geographical extent and duration and reversibility. Not all aspects of a criterion need to be met for an evaluation to be given.

6.1.20 Table 8 below sets out the criterion used to assess the overall magnitude of landscape change.

Table 6.8: Overall Magnitude of Landscape Change

Magnitude Evaluation	Size, scale and nature	Geographical Extent	Duration & Reversibility
High	A large extent of existing landscape elements would be lost / adjusted, the proportion that this represents within the landscape is considerable and the resultant change to the landscape character	The change would affect all of the landscape receptors being assessed, as the Scheme would occupy a large geographical	Long term; permanent / non-reversible or partially reversible.

Magnitude Evaluation	Size, scale and nature	Geographical Extent	Duration & Reversibility
	resulting from such a loss is large. Large scale alteration of the aesthetic and perceptual aspects of the landscape such as the removal of existing components of the landscape or by addition of new ones – for example, removal of hedges may change a small scale, intimate landscape into a large-scale, open one, or introduction of new buildings or tall structures may alter open skylines. The effects change the key characteristics of the landscape features and landscape character, which are critical to its distinctive overall character.	extent, e.g., the change would be on a large scale, influencing several landscape types or character areas.	
Medium	A medium extent of existing landscape elements would be lost / adjusted, the proportion that this represents within the landscape is medium and the resultant change to the landscape character resulting from such a loss is medium. Medium scale alteration of the aesthetic and perceptual aspects of the landscape such as the removal of existing components of the	The change would affect a medium extent of the landscape receptors being assessed, as the Scheme would occupy a moderate geographical extent, e.g., at the scale of the landscape type or character area within which the proposal lies.	Medium term; semi- permanent or partially reversible.

Magnitude Evaluation	Size, scale and nature	Geographical Extent	Duration & Reversibility
	landscape or by addition of new ones. The effects change some of the key characteristics of the landscape features and landscape character, which are critical to its distinctive overall character.		
Low	A small extent of existing landscape elements would be lost / adjusted, the proportion that this represents within the landscape is low and the resultant change to the landscape character resulting from such a loss is low. Small scale alteration of the aesthetic and perceptual aspects of the landscape such as the removal of existing components of the landscape or by addition of new ones. The effects change a small number of the key characteristics of the landscape features and landscape character, which are critical to its distinctive overall character.	The change would affect a small part of the landscape receptors being assessed, as the Scheme would occupy a small geographical extent, e.g., at the level of the immediate setting of the site.	Short term / temporary; partially reversible or reversible.
Very Low	A barely perceptible extent of landscape features and elements of importance to the character of the	The change would affect only a negligible part of the landscape receptors being	Short term / temporary; partially reversible or reversible.

Magnitude Evaluation	Size, scale and nature	Geographical Extent	Duration & Reversibility
	baseline are lost / adjusted. There is a barely discernible change to aesthetic and / or perceptual attributes of landscape features and landscape character and such changes occur across a very limited geographical area and / or proportion of the landscape receptor. The effects change a barely discernible number of the key characteristics of the landscape, which are critical to its distinctive character.	assessed, as the Scheme would occupy a limited geographical extent, e.g., the site level, within the Scheme site itself.	

7 Assessment of Visual Effects

7.1.1 Visual effects relate to changes in available views of the landscape and the effect of those changes on people, including:

- The direct effects of the Scheme on the content and character of views through the intrusion or obstruction and/or the change or loss of existing elements.
- The overall effect on visual amenity, be it degradation or enhancement.

7.1.2 Visual effects are concerned with the effect of the Scheme on views, and the general visual amenity of users and are defined by the Landscape Institute in GLVIA 3 (paragraph 6.1), as follows:

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

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

- Visual effect: a change to an existing static view, sequential views, or wider visual amenity as a result of the Scheme, or
- the loss of particular landscape elements or features already present in the view.

7.1.4 The visual assessment for the LVIA process aims to determine from which points the Scheme can be seen in the surrounding landscape; this is known as the visual envelope. Once determined, a series of representative, specific and illustrative viewpoints are chosen (i.e., areas within the visual envelope from where it may be possible to see the Scheme from publicly accessible viewpoints), such as residential areas, public open spaces, PRoW / public footpaths and roads.

7.1.5 Visual effects relate to changes in available views of the landscape and the effect of those changes on people, including:

- The direct effects of the Scheme on the content and character of views through the intrusion or obstruction and/or the change or loss of existing elements.
- The overall effect on visual amenity, be it degradation or enhancement.

7.1.6 In predicting the effects of the Scheme on the visual receptors from the viewpoints being assessed, GLVIA3 (para 6.27), states that it is helpful to consider (but not restricted to) the following factors:

- Nature of the view (full, partial or glimpsed);
- Proportion of the Scheme visible (full, most, part or none);
- Distance of the viewpoint from the Scheme and whether it would be the focus of the view or only a small element;
- Whether the view is stationary, transient, or sequential; and
- The nature of the changes to the view.

- 7.1.7 Additionally, the seasonal effects of vegetation are considered, in particular the varying degree of screening and filtering of views.
- 7.1.8 People have different responses to views which are dependent upon context such as the:
- Location;
 - Time of day;
 - Season; and
 - Degree of exposure to views.
- 7.1.9 Responses to views are also dependent upon the purpose of people being in a particular place such as:
- Recreation;
 - Residence;
 - Employment; and
 - Passing through on roads, rail, or other forms of transport.
- 7.1.10 As people move through the landscape, certain activities or locations may be specifically associated with the experience and enjoyment of the landscape, such as:
- The use of paths such as core paths, footpaths, bridleways, byways open to all traffic (BOATs) and National Trails;
 - National or local cycle routes; and
 - Tourist or scenic routes, and associated viewpoints on land or water.

Assessing Visual Sensitivity

- 7.1.11 To determine visual effects both the sensitivity of the visual receptor and the magnitude of change are considered. Determining visual sensitivity is the combination of susceptibility to change and value of a view. It is considered that a combination of high susceptibility to change and high value is likely to result in the highest sensitivity, whereas a low susceptibility and low value is likely to result in the lowest level. The value, susceptibility to change and resultant sensitivity of a visual receptor are categorised based on the following Tables 7 to XXX below. It should be noted that the levels are indicative and in practice there is not a clear distinction between criteria levels.
- 7.1.12 The susceptibility of visual receptors to changes in the view and visual amenity is related to activity they are engaged in and the extent to which their attention is focussed on the views and visual amenity at that location. As such, those receptors most sensitive to change are likely to include people engaged in outdoor activities where an appreciation of the landscape is the focus or residents in areas where the landscape setting contributes to the setting of the properties.
- 7.1.13 Conversely, those considered least sensitive to change include (but are not restricted to) people engaged in outdoor sports or recreation where there is no focus on the surrounding landscape/views and people at their place of work where the focus is on the work activity.

Value of Views

- 7.1.14 The value attached to views is judged based on the following factors:
- Recognition of the value attached to particular views, for example in relation to heritage assets, or through planning designations; and
 - Indicators of the value attached to views by visitors, for example through appearances in guidebooks or on tourist maps, provision of facilities for their enjoyment and references to them in literature or art.

7.1.15 Table 8 below summarises the criterion used to assess the value attached to views.

Table 7.1: Value Attached to Views

Visual Value	Criterion
High	Views from and within landscapes / viewpoints of national importance (National Parks, AONBs), highly popular visitor attractions where the view forms an important part of the experience, or heritage assets, or through planning designations such as conservation areas, listed buildings, Registered Parks & Gardens, or with important cultural associations, or where the view is deemed by the assessor to be of a high value.
Medium	Views from landscapes / viewpoints of regional/district importance, or visitor attractions at regional or local levels where the view forms part of the experience, or local planning designations, or with local cultural associations, or where the view is deemed by the assessor to be of a medium value.
Low	Views from landscapes / viewpoints with no designations, and not particularly popular as a viewpoint, and unlikely to be visited specifically to experience the view available, with minimal or no cultural associations, or where the view is deemed by the assessor to be of a low value.
Very Low	Views from landscapes / viewpoints with no designations, and not popular as a viewpoint, and where view provides no positive contribution to the appreciation of the landscape with no cultural associations, or where the view is deemed by the assessor to be of very low value.

Susceptibility of the Visual Receptors to Change

- 7.1.16 The susceptibility of visual receptors to changes in views depends upon:
- The occupation or activity of people experiencing the view at particular locations; and

- The extent to which their attention or interest may therefore be focussed on the views and the visual amenity they experience at particular locations¹³.

7.1.17 Table 8 below summarises the criterion used to assess the susceptibility of a visual receptor to change.

Table 7.2: Visual Receptor Susceptibility to Change

Visual Susceptibility	Type of Receptor
High	Residents at home. Views from well used public rights of way including strategic footpaths / long distance trails and cycle routes (where the attractive nature of the countryside is a significant factor in the enjoyment of the walk). Visitors along scenic routes and to recognised viewpoints. Visitors to protected landscapes or heritage assets where views of the surroundings are an important contributor to the experience. The location, numbers, frequency of use and visual context of the viewpoint would be high. Communities where views contribute to the landscape setting enjoyed by residents in the area. Travellers on road, rail, or other transport routes along scenic routes, where the appreciation of the view contributes to the enjoyment and quality of the journey.
Medium	Views experienced from boats, public rights of way / footpaths used locally and passing through the landscape and well used footpaths within settlements. Views from places of worship and associated grounds, schools, country parks and golf clubs. Views experienced by users of local roads where there are clear / open views across the landscape and low levels of traffic. The location, numbers, frequency of use and visual context of the viewpoint would be medium.
Low	Views experienced from places of work where workers and visitors are concentrating on their day-to-day activities. Views experienced by or near to motorways or major roads. Views experienced by users of the rail network and main roads travelling at speed or local roads where the focus is upon the road ahead owing to traffic conditions and the context / composition of the view. Views experienced from less well used public rights of way which pass through less attractive landscapes or townscapes and are not used for enjoyment of the scenery.

¹³ Ibid. 1. Paragraph 6.32

	Views experienced by those playing or spectating at outdoor sports or utilising outdoor sports facilities. The location, numbers, frequency of use and visual context of the viewpoint would be low.
Very Low	Views experienced from places of work where workers and visitors are concentrating on their day-to-day activities. Views experienced by or near to motorways or major roads. Views experienced by users of the rail network and main roads travelling at high speed or local roads where the focus is upon the road ahead owing to traffic conditions and the context / composition of the view. Views experienced from very infrequently used public rights of way which pass through unattractive or discordant landscapes or townscapes and are not used for enjoyment of the scenery. Views experienced by those of which the view is unlikely to be part of the receptor's experience. The location, numbers, frequency of use and visual context of the viewpoint would be very low.

Sensitivity of Visual Receptors

7.1.18 The sensitivity of visual receptors is defined in terms of the relationship between the value of views and the susceptibility of the different viewers to the proposed change. Professional judgements are made on the merit of the view based on the visual receptor. It should be noted that the levels are indicative and in practice there is not a clear distinction between criteria levels.

7.1.19 Table 9 below summarises the likely characteristics of the differing levels of sensitivity.

Table 7.3: Visual Receptor Sensitivity Criterion

Visual Sensitivity	Characteristics
High	A well-balanced view containing attractive features and notable for its scenic quality with no or very few/minimal visual detractors. A view which is an important reason for receptors being there. A view which is experienced by a large number of people and/ or recognised for its qualities. A view with a medium – high susceptibility to change and experienced by visual receptors of a high value.
Medium	An otherwise attractive view that includes some attractive or discordant features/visual detractors. A view which plays a part in the reason why a receptor would be there. A view which is locally recognised. A view with a low - medium susceptibility to change and experienced by visual receptors of a low - medium value.

Visual Sensitivity	Characteristics
Low	A view that is simplistic and contains few attractive or notable features or a number of visual detractors which may dominate the view. A view which plays a small part in the reason why a receptor would be there. A view with a low susceptibility to change, and a low value.
Very Low	A view that is unattractive, discordant and/or contains many visual detractors. A view which is unlikely to be part of the receptor's experience. A view with a very low susceptibility to change, and very low sensitivity.

7.1.20 The judgement on visual sensitivity as explained above is based on consideration of both the visual receptor's value and its susceptibility to change arising from the Scheme.

7.1.21 Table 10 below illustrates how visual value and susceptibility are combined to determine the level of visual sensitivity.

Table 7.4: Matrix for Determining Visual Sensitivity

Visual Susceptibility	High	Medium	Low	Very Low
Visual Value				
High	High	High to Medium	Medium	Medium to Low
Medium	High to Medium	Medium	Medium to Low	Low
Low	Medium	Medium to Low	Low	Low to Very Low
Very Low	Medium to Low	Low	Low to Very Low	Very Low

7.1.22 All the identified visual receptors are first established in the assessment of potential visual effects to identify visual sensitivity. It is only those visual receptors that are identified as having a Medium, High to Medium or High Sensitivity to the Scheme that are carried forward to the assessment stage.

Magnitude of Visual Change

7.1.23 The magnitude of change to visual receptors is assessed in terms of the following factors:

Size or Scale

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

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

7.1.24 Not all aspects of a criterion need to be met for an evaluation to be given.

Geographical Extent

7.1.25 The geographical extent of the visual change identified at viewpoints is assessed by reference to a combination of the ZTV and field work.

7.1.26 The following factors are considered:

- The angle of view in relation to the main activity of the receptor;
- The distance of the viewpoint from the Scheme; and
- The extent of the area over which the changes would be visible.

Duration and Reversibility of Visual Effects

7.1.27 The following terminology, which considers whether views would be permanent and irreversible or temporary and reversible, is used to describe the duration of the visual change at representative, specific and illustrative viewpoints:

- Short-term: 0-5 years;
- Medium-term: 5-10 years; and
- Long-term: 10 to 40 years (or longer...).

7.1.28 For the purposes of the LVIA process, the Scheme is assessed as a long-term duration.

7.1.29 Reversibility is the judgement about whether or not the Scheme can be removed, and once removed whether the view can be fully restored.

Overall Magnitude of Visual Change

7.1.30 Table 12 below sets out the criterion used to assess the overall magnitude of visual change.

Table 7.4 Overall Magnitude of Visual Change.

Magnitude Evaluation	Size, Scale and Nature	Geographical Extent	Duration & Reversibility
High	Occupies an extensive proportion of the view and may even obstruct a significant portion of the view. Views may become the dominant feature. Considerable change to the majority / many existing landscape elements	Ranging from notable change over extensive area to intensive change over a more limited area.	Long term; permanent/ non- reversible or partially reversible.

Magnitude Evaluation	Size, Scale and Nature	Geographical Extent	Duration & Reversibility
	and/or landscape character; fundamental changes the surroundings and baseline to a large extent; very noticeable.		
Medium	Occupies much of the view but would not fundamentally change its characteristics. Changes would be immediately visible but not a key feature of the view. Some change to existing landscape elements and /or landscape character; discernible changes the surroundings of a receptor, such that its baseline is partly altered; readily noticeable.	Moderate changes in a localised area.	Medium term; semi-permanent or partially reversible.
Low	Occupies a small portion of the view and therefore would not result in a change to the view's composition. Small change to existing landscape elements and/or landscape character; slight, but detectable impacts that do not alter the baseline of the receptor materially not readily noticeable.	Minor changes in a localised area.	Short term / temporary; partially reversible or reversible.
Very Low	Occupies a small portion of the view and therefore would not result in a change to the view's composition. Small change to existing landscape	Minor changes in a localised area.	Short term / temporary; partially reversible or reversible.

Magnitude Evaluation	Size, Scale and Nature	Geographical Extent	Duration & Reversibility
	elements and/or landscape character; slight, but detectable impacts that do not alter the baseline of the receptor materially not readily noticeable.		

8 Nature of Effects

8.1.1 The nature of an effect is also assessed. This is dependent on a number of criteria which vary between effects upon the landscape and effects on visual amenity. Effects are classified as beneficial, neutral, or adverse according to the following definitions:

- **Beneficial effects** contribute to the landscape and visual resource through the enhancement of desirable characteristics or the introduction of new, positive attributes. The removal of undesirable existing elements or characteristics can also be beneficial, as can their replacement with more appropriate components;
- **Neutral effects** occur where the Scheme neither contributes to nor detracts from the landscape and visual resource or where the effects are so limited that the change is hardly noticeable. A change to the landscape and visual resource is not considered to be adverse simply because it constitutes an alteration to the existing situation; and
- **Adverse effects** are those that detract from or weaken the landscape and visual resource through the introduction of elements that contrast in a detrimental way with the existing characteristics of the landscape and visual resource, or through the removal of elements that are key in its positive characterisation.

8.1.2 For the purpose of the LVIA, the process describes the overall effects on receptors and explains the justification for each assessment. For each assessed effect, a conclusion is drawn on whether the effect is beneficial, neutral, or adverse.

9 Significance of Effect and Criteria

- 9.1.1 The significance of landscape and visual effect and whether it is significant or not is assessed based on a combination of the sensitivity of the receptor, and the magnitude of change, alongside the professional judgement of a chartered landscape architect.
- 9.1.2 The combined sensitivity of the receptor and the magnitude of change is then used to determine the significance of effect. The nature of Landscape and Visual effects can be either beneficial, neutral, or adverse in nature.

Matrix of Combined Factors

- 9.1.3 Table 13 below shows how the combined factors of sensitivity and magnitude are considered together to determine the significance of landscape and visual effects.

Table 9.1: -Matrix for Determining Significance of Landscape and Visual Effects

Sensitivity	High	Medium	Low	Very Low
Magnitude				
High	Major	Major to Moderate	Moderate	Moderate to Minor
Medium	Major to Moderate	Moderate	Moderate to Minor	Minor
Low	Moderate	Moderate to Minor	Minor	Minor to Negligible
Very Low	Moderate to Minor	Minor	Minor to Negligible	Negligible

- 9.1.4 In accordance with Infrastructure Planning (Environmental Impact Assessment) Regulations 2017, it is important to determine whether the predicted landscape and visual effects arising from the Scheme are likely to be significant. Landscape and visual effects which result in a Major, Major to Moderate, and Moderate landscape or visual effect are considered to be significant.

Categories of Effect

- 9.1.5 Table.14 summarises the categories of landscape and visual effects.

Table 7.1.15: Categories of Landscape and Visual Effects

Significance of Effect	Description of Landscape Effects	Description of Visual Effects
Major	Considerable change over an extensive area of a highly sensitive landscape, fundamentally affecting the key characteristics and the overall impression of its character.	The Scheme would become a prominent feature and would result in a very noticeable change to an existing highly

		sensitive and well composed view.
Moderate	Small or noticeable change to a highly sensitive landscape or more intensive change to a landscape of medium or low sensitivity, affecting some key characteristics and the overall impression of its character.	The Scheme would introduce some enhancing or detracting features to an existing highly sensitive and well composed view or would be prominent within a less well composed and less sensitive view, resulting in a noticeable improvement or deterioration of the existing view.
Minor	Small change to a limited area of landscape of high or medium sensitivity or a more widespread area of a less sensitive landscape, affecting few characteristics without altering the overall impression of its character.	Where the Scheme would form a perceptible but not enhancing or detracting feature within a view of high or medium sensitivity or would be a more prominent feature within a poorly composed view of low sensitivity, resulting in a small improvement or deterioration of the existing view.
Negligible	No discernible improvement or deterioration to the existing landscape character.	No discernible improvement or deterioration in the existing view.
No Effect	Where there is a perceived or anticipated effect, but upon investigation non is found.	Where there isa perceived or anticipated effect, but upon investigation non is found.

Limitations of the assessment

9.1.6

It should be noted that this tabulated approach does not always result in a useful final assessment. Very noticeable changes for highly sensitive receptors will always result in major effects. If the changes are well designed and are appropriate to the context or replace inappropriate elements this will not necessarily be an adverse effect, but neither will it be a major beneficial effect. Where this is the case an assessment of the final effect is made according to professional judgement.

10 Glossary

Table 10.1: Glossary Terms¹⁴

Term	Definition
Access land	Land where the public have access either by legal right or by informal agreement.
Baseline studies	Work done to determine and describe the environmental conditions against which any future changes can be measured or predicted and assessed.
Characterisation	The process of identifying areas of similar landscape character, classifying and mapping them, and describing their character.
Characteristics	Elements, or combinations of elements, which make a contribution to distinctive landscape character.
Compensation	Measures devised to offset or compensate for residual adverse effects which cannot be prevented/avoided or further reduced.
Competent authority	The authority which determines the application for consent, permission, licence or other authorisation to proceed with a proposal. It is the authority that must consider the environmental information before granting any kind of authorisation.
Consultation bodies	Anybody specified in the *Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) which the competent authority must consult in respect of an EIA, and which also has a duty to provide a scoping opinion and information.
Designated landscape	Areas of landscape identified as being of importance at international, national, or local levels, either defined by statute or identified in development plans or other documents.
Development	Any proposal that results in a change to the landscape and/or visual environment.
Direct effect	An effect that is directly attributable to the Scheme.
‘Do Nothing’ situation	Continued change or evolution in the landscape in the absence of the proposed development.
Ecosystem services	The benefits provided by ecosystems that contribute to making human life both possible and worth living. The Millennium Ecosystem Assessment grouped ecosystem services into four broad categories: ○ Supporting services, such as nutrient cycling, oxygen production and soil formation. These underpin the provision of the other ‘service’ categories. ○ Provisioning services, such as food, fibre, fuel and water. ○ Regulating services, such as climate regulation, water purification and flood protection.

¹⁴ Landscape Institute and Institute of Environmental Management and Assessment, 2013, Guidelines for Landscape and Visual Impact Assessment, 3rd Edition, Routledge, London. Glossary Page 155 to 159

	○ Cultural services, such as education, recreation, and aesthetic value.
Environmental Impact Assessment (EIA) Regulations	The EIA Regulations form part of the development management system in England. The EIA Regulations cover certain types of development which have the potential to give rise to significant effects on the environment. The EIA Regulations enable planning authorities to understand and take account of the environmental implications of development in their decisions on planning applications. The EIA Regulations applicable to this DCO application are the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017.
Elements	Individual parts which make up the landscape, such as, for example, trees, hedges, and buildings.
Enhancement	Proposals that seek to improve the landscape resource and the visual amenity of the proposed development site and its wider setting, over and above its baseline condition.
Environmental Impact Assessment (EIA)	The process of gathering environmental information; describing a development; identifying and describing the likely significant environmental effects of the project; defining ways of preventing/avoiding, reducing, or offsetting or compensating for any adverse effects; consulting the general public and specific bodies with responsibilities for the environment; and presenting the results to the competent authority to inform the decision on whether the project should proceed.
Environmental statement	A statement that includes the information that is reasonably required to assess the environmental effects of the development and which the applicant can, having regard in particular to current knowledge and methods of assessment, reasonably be required to compile, but that includes at least the information referred to in the EIA Regulations.
Feature	Particularly prominent or eye-catching elements in the landscape, like tree clumps, church towers, or wooded skylines or a particular aspect of the project proposal.
Geographical Information System (GIS)	A system that captures, stores, analyses, manages, and presents data linked to location. It links spatial information to a digital database.
Green Infrastructure (GI)	Networks of green spaces and watercourses and water bodies that connect rural areas, villages, towns, and cities.
Heritage	The historic environment and especially valued assets and qualities such as historic buildings and cultural traditions.
Historic Landscape Characterisation (HLC) and Historic	Historic characterisation is the identification and interpretation of the historic dimension of the present-day landscape or townscape within a given area. HLC is the term used in England and Wales, HLA is the term used in Scotland.

Land-use Assessment (HLA)	
Indirect effects	Effects that result indirectly from the proposed project, as a consequence of the direct effects, often occurring away from the site, or as a result of a sequence of interrelationships or as a result of a complex pathway. They may be separated in distance or in time from the source of the effects.
Iterative design process	The process by which project design is amended and improved by successive stages of refinement which respond to growing understanding of environmental issues.
Key characteristics	Those combinations of elements which are particularly important to the current character of the landscape and help to give an area its particularly distinctive sense of place.
Land use	What land is used for, based on broad categories of functional land cover such as urban and industrial use and the different types of agriculture and forestry.
Land cover	The surface cover of the land, usually expressed in terms of vegetation cover or lack of it. Related to but not the same as land use.
Landform	The shape and form of the land surface which has resulted from combinations of geology, geomorphology, slope, elevation and physical processes.
Landscape	An area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors.
Landscape and Visual Impact Assessment (LVIA)	Landscape and Visual Impact Assessment (LVIA) is a tool used to identify and assess the likely significance of the effects of change resulting from development on both the landscape as an environmental resource in its own right and on people's views and visual amenity.
Landscape character	A distinct, recognisable, and consistent pattern of elements in the landscape that makes one landscape different from another, rather than better or worse.
Landscape Character Assessment (LCA)	Landscape character assessment is the process of identifying and describing variation in the character of the landscape and using this information to assist in managing change in the landscape. It seeks to identify and explain the unique combination of elements and features that make landscapes distinctive. The process results in the production of a Landscape Character Assessment.
Landscape Character Types (LCTs)	These are single unique areas which are the discrete geographical areas of a particular landscape type.
Landscape classification	A process of sorting the landscape into different types using selected criteria but without attaching relative values to different sorts of landscape.

Landscape effects	Effects on the landscape as a resource in its own right.
Landscape quality (Condition)	A measure of the physical state of the landscape. It may include the extent to which typical character is represented in individual areas, the intactness of the landscape and the condition of individual elements.
Landscape receptor	A defined aspect of the landscape resource that has the potential to be affected by a proposal.
Landscape strategy	The overall vision and objectives for what the landscape should be like in the future, and what is thought to be desirable for a particular landscape type or area as a whole, usually expressed in formally adopted plans and programmes or related documents.
Landscape value	The relative value that is attached to different landscapes by society. A landscape may be valued by different stakeholders for a whole variety of reasons.
Magnitude (of effect)	A term that combines judgments about the size and scale of the effect, the extent of the area over which it occurs, whether it is reversible or irreversible and whether it is short or long term in duration.
Parameters	A limit or boundary which defines the scope of a particular process or activity.
Perception	Combines the sensory (that we receive through our senses) with the cognitive (our knowledge and understanding gained from many sources and experiences).
Photomontage	A visualisation which superimposes an image of a proposed development upon a photograph or series of photographs.
Scoping	The process of identifying the issues to be addressed by an EIA. It is a method of ensuring that an EIA focuses on the important issues and avoids those that are considered to be less significant.
Sensitivity	A term applied to specific receptors, combining judgments of the susceptibility of the receptor to the specific type of change or development proposed and the value related to that receptor.
Significance	A measure of the importance or gravity of the environmental effect, defined by significance criteria specific to the environmental topic.
Stakeholders	The whole constituency of individuals and groups who have an interest in a subject or place.
Strategic Environmental Assessment	The process of considering the environmental effects of certain public plans, programmes, or strategies at a strategic level.
Susceptibility	The ability of a defined landscape or visual receptor to accommodate the specific proposed development without undue negative consequences.

Time depth	Historical layering - the idea of landscape as a 'palimpsest', a much written over manuscript.
Townscape	The character and composition of the built environment including the buildings, the relationships between them, the different types of urban open spaces, including greenspaces, and the relationship between buildings and open spaces.
Tranquillity	A state of calm and quietude associated with peace, considered to be a significant asset of landscape.
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 effect	Effects on specific views and on the general visual amenity experienced by people.
Visual receptors	Individuals and/or defined groups of people who have the potential to be affected by a proposal.
Visualisation	Computer simulation, photomontage, or other technique to illustrate the predicted appearance of a development.
Zone of Theoretical Visibility (sometimes Zone of Visual Influence)	A map, usually digitally produced, showing areas of land within which a development is theoretically visible.
* Change/s to Glossary when compared with standard GLVIA3 Glossary.	

