

Volume 2: Chapter 7 – Landscape and Visual Amenity

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7. LANDSCAPE AND VISUAL AMENITY

7.1 Introduction

- 7.1.1 This chapter considers the potential effects of the Proposed Development on landscape and visual amenity. The assessment includes potential effects on landscape and visual receptors including landscape character, and views experienced by residents, recreational receptors and road users.
- 7.1.2 The chapter objectives with regard to the Proposed Development are as follows:
- describe the landscape and visual baseline, informed by desk-based studies and field surveys;
 - describe how consultation has informed the scope of the assessment;
 - describe the assessment methodology and significance criteria used in assessing effects on landscape and visual receptors features;
 - describe the mitigation measures proposed to address potential significant effects (if required); and
 - describe the residual effects (including cumulative effects) on landscape character and resources, including effects upon the physical elements, character and/or special qualities of the landscape (including landscape designations); and
 - describe the residual effects (including cumulative effects) on visual amenity, including effects upon potential receptors (people) and viewing groups caused by change in the appearance of the landscape.
- 7.1.3 Landscape character and resources are considered to be of importance in their own right and are valued independent of whether they are seen by people. Effects on views and visual amenity as perceived by people are clearly distinguished from, although closely linked to, effects on landscape character and resources. The assessment of these two components of Landscape and Visual Impact Assessment (LVIA) are therefore separate but connected processes. Accordingly, this chapter deals with landscape and visual effects separately, including an assessment of cumulative landscape and visual effects, and is supported by **Volume 3, Figures 7.1-7.4**. Accompanying visualisations are illustrated as **Volume 3, Figures 7.5-7.7** and have been prepared in accordance with the methodology set out in **Volume 4, Appendix 7.1: LVIA and Visualisations Methodology**.
- 7.1.4 This chapter presents information relevant to the Proposed Development. It should be read in conjunction with **Volume 2, Chapter 3: Project Description** of the EIAR for full details of the Proposed Development.
- 7.1.5 This chapter should also be read in conjunction with the following chapters:
- **Volume 2, Chapter 8: Cultural Heritage;** and,
 - **Volume 2, Chapter 9: Ornithology.**
- 7.1.6 The LVIA was undertaken by LUC. It was prepared and overseen by experienced landscape planners and architects with appropriate memberships of the Landscape Institute, and experience of LVIA in the context of wind farm, grid and mixed-use developments. Field surveys and data collection were undertaken by landscape professionals who have extensive experience in undertaking site work and viewpoint photography, and in the assessment of landscape and visual effects.
- 7.1.7 The following terminology will be referred to throughout this chapter:
- Proposed Development - The proposed Emmock and Tealing Overhead Line Tie-ins and other development for which Section 37 Consent and deemed planning permission is sought as described in **Volume 2, Chapter 3: Project Description**.
 - 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.
 - Magnitude of Change – the degree of change on landscape and visual receptors as a result of the Proposed Development, informed by scale of change, geographical extent, duration and reversibility.
 - Receptor – A distinct part of the environment on which effects could occur and can be the subject of specific assessments. Examples of landscape receptors within an LVIA include constituent elements of the landscape, Landscape Character Types (LCTs), and national, regional or local landscape designations. Visual receptors

within an LVIA are people, often categorised further such as residents, those using areas for amenity or recreation, or those travelling along roads.

- Sensitivity – determined by a combination of the value of the receptor and the susceptibility.
- Study Area – the geographical area in which the landscape and visual impacts of the Proposed Development will be assessed being a 5 km wide offset to either side of new elements of the proposed Alignment, as shown on **Volume 3, Figure 7.1: Landscape and Visual Impact Assessment Study Area**.
- Susceptibility – the ability of the receptor to accommodate the type of development proposed without undue consequences.
- Value – the value associated with the landscape or view or visual amenity based on the presence of landscape designations and/ or aesthetic, perceptual or experiential qualities and the value attached to the landscape or view by communities and visitors.
- Zone of theoretical visibility (ZTV) – A ZTV indicates areas from where the Proposed Development would be theoretically visible, but does not indicate the nature or magnitude of landscape or visual impact.

7.2 Scope of the Assessment

Effects Assessed in Full

7.2.1 The EIA Scoping process, baseline conditions and professional judgement has identified the following effects for detailed assessment:

- effects on the physical landscape of the Study Area during construction and operation;
- effects on the landscape character of the Study Area during construction and operation;
- effects on visual amenity experienced by receptors (people) at static locations within or moving around the Study Area (including residents in properties, settlements and communities, recreational receptors on core paths and at hill summits, and people travelling along roads) with reference to Visual Receptor Areas (VRAs) and representative viewpoints, during construction and operation;
- effects on the landscape character and views at night-time arising during the construction period of the Proposed Development;
- cumulative landscape and visual effects (including combined, successive and sequential visual effects) during construction and operation; and
- effects on residential visual amenity at dwellings within 225 m from the Alignment at suspension towers and 270 m at angle towers. Further information is provided in **Volume 4, Appendix 7.4: Residential Visual Amenity Assessment**.

Effects Scoped Out

7.2.2 On the basis of the desk based and field survey work undertaken, the professional judgement of the EIA team, experience from other relevant projects and policy guidance or standards, and feedback received from consultees, the following effects have been ‘scoped out’ of detailed assessment, as proposed in the EIA Scoping Report (**Volume 4, Appendix 6.1: Scoping Report**) and confirmed in the Scoping Opinion (**Volume 4, Appendix 6.2: Scoping Opinion**):

- effects on landscape character, landscape designations, and visual receptors (including cumulative) outside the Study Area, where it is judged that Significant visual effects are unlikely to occur;
- effects on landscape and visual receptors that have minimal or no theoretical visibility (as predicted by the ZTV) and are therefore unlikely to be subject to Significant effects; and
- effects on landscape character and visual amenity at night during the operational phase of the Proposed Development, since no operational lighting is proposed.

Study Area

7.2.3 The Study Area for the LVIA, including the assessments for both landscape and visual receptors agreed with Angus Council through their response to the Scoping Report, is defined as a 5 km wide offset to either side of new elements

of the proposed Alignment, as shown on **Volume 3, Figure 7.1: Landscape and Visual Impact Assessment Study Area**. The Proposed Development and the majority of the Study Area are located within the Angus Council area, however the southernmost extents of the Study Area extend into the Dundee City authority area.

- 7.2.4 The Study Area has been informed by professional judgement, the scale of the Proposed Development as described in **Volume 2, Chapter 3: Project Description**, desk-based studies including ZTV analysis, and field studies. Observations of existing high voltage OHLs in the surrounding landscape and their influence on landscape and visual amenity informed the Study Area. These suggest that visibility of open lattice towers recedes relatively quickly, and this type of structure is not prominent in longer-distance views. Based on these observations, and an understanding of the landscape, it is considered that significant landscape and visual effects as a result of the Proposed Development would be unlikely beyond 5 km.
- 7.2.5 ZTV mapping has been used to illustrate areas from which the Proposed Development may be visible, refer to **Volume 3, Figure 7.2: Visual Receptor Areas, Viewpoint Locations and other Visual Receptors with Bare Earth Zone of Theoretical Visibility (ZTV)**. The ZTV has been prepared based on the Alignment of the Proposed Development (ie individual tower positions), and the design heights of the towers as per the tower schedule set out in **Volume 4, Appendix 3.1 Tower Schedule**. The average height for the ASTI SSE400 tower suite is approximately 57 m. There will be a maximum vertical Limit of Deviation (LOD) of 9 m.
- 7.2.6 The ZTV is based on bare earth terrain data and does not take into account the screening effects of vegetation, buildings, or other local features that may limit or reduce visibility. Therefore, the ZTV represents a worst-case scenario of theoretical visibility, and actual visibility would be reduced due to elements within the landscape which would provide some screening (eg vegetation and buildings). Further information on the ZTV is provided in **Volume 4, Appendix 7.1: LVIA and Visualisations Methodology**. The ZTV is used as a tool for understanding where visual effects may occur, rather than as an indicator of the level of effect. Receptors which are outside the ZTV would not be affected by the Proposed Development and are therefore not considered further in this LVIA. Whilst the ZTV indicates potential visibility beyond 5 km in some directions, based on professional judgement and experience of assessing transmission infrastructure, significant effects on landscape character and visual amenity at these distances (ie >5 km) are unlikely.

7.3 Assessment Methodology

- 7.3.1 This section lists the legislation, policy and guidance that have informed the LVIA, and summarises the consultation that has taken place in relation to the LVIA. It then sets out the broad principles of the methodology for the LVIA, which are expanded on in **Volume 4, Appendix 7.1: LVIA and Visualisations Methodology**.

Legislation, Policy and Guidance

Legislation

- 7.3.2 This assessment is carried out in accordance with the principles contained within the following legislation:

- The *Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017*¹ (the EIA Regulations).

Policy

- 7.3.3 The following policies of relevance to the assessment have been considered:

- National Planning Framework 4² (Policies 4 and 11);
- Angus Council Local Development Plan³; and

¹ UK Government, 2017. *The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations (2017)*. [Online] Available at: <http://legislation.gov.uk/ssi/2017/101/contents>

² Scottish Government (2023) *National Planning Framework*. [Online] Available at: <https://www.gov.scot/binaries/content/documents/govscot/publications/strategy-plan/2023/02/national-planning-framework-4/documents/national-planning-framework-4-revised-draft/national-planning-framework-4-revised-draft/govscot%3Adocument/national-planning-framework-4.pdf> [Accessed 23/09/24].

³ Angus Council, (2016). *Angus Local Development Plan*. [Online] Available at: <https://www.angus.gov.uk/sites/angus-cms/files/Angus%20local%20development%20plan%20adopted%20September%202016.pdf> [Accessed 23/09/24]

- Dundee Local Development Plan⁴.

Guidance

7.3.4 This assessment is carried out in accordance with the principles contained within the following documents:

- Landscape Institute and the Institute of Environmental Management and Assessment (2013) *Guidelines for Landscape and Visual Impact Assessment, 3rd Edition* ('GLVIA3');
- Scottish Natural Heritage (SNH) (2018) A Handbook on Environmental Impact Assessment, Appendix 2: Landscape and Visual Impact Assessment, Version 5;
- NatureScot (2021) *Assessing the cumulative impact of onshore wind energy developments*;
- Landscape Institute (2019) *Technical Guidance Note 06/19 Visual representation of development proposals*;
- Landscape Institute (2019) *Residential Visual Amenity Assessment (RVAA) Technical Guidance Note 2/19*;
- Landscape Institute (2021) *Assessing Landscape Value Outside National Designations, Technical Guidance Note 02/21*;
- SSEN Transmission (2023) *Procedures for Routeing Overhead Lines and Underground cables of 132kV and above*; and
- SSEN Transmission (2023) *Procedures for Routeing Overhead Lines and Underground cables of 132kV and above, Annex 1: Holford Rules: Guidelines for the Routeing of New High Voltage Overhead Transmission Lines with NGC 1992 and SHETL 2003 Notes*.

Consultation

- 7.3.5 In undertaking the assessment, consideration has been given to the relevant responses and feedback to the scoping exercise undertaken, as detailed in **Table 7.1: Summary of Consultation**. An EIA Scoping Report was submitted to the Energy Consents Unit on 11 April 2025. A Scoping Opinion was received on 28 May 2025 which included comments from statutory and non-statutory consultees, some of which were specifically relevant to the approach and scope of the LVIA.
- 7.3.6 In undertaking the assessment, consideration has been given to the responses and feedback to the consultation undertaken as detailed in **Table 7.1: Summary of Consultation**.

Table 7.1: Summary of Consultation

Consultee and Date	Scoping/Other Consultation	Issue Raised	Response/Action Taken
NatureScot 22 April 2025	Scoping	Agreed with the approach set out in the Scoping Report and were not aware of any additional information that could be provided.	Agreement is noted.
Angus Council 14 May 2025	Scoping	Suggestion that the 500 m threshold for RVAA may not encapsulate all potential effects, and a better approach would be to consider properties on a case-by-case basis, similar to the approach taken for the Kintore to Tealing 400 kV OHL project. The response also notes viewpoints will be agreed with Angus Council.	The approach to RVAA for this assessment follows the updated approach taken for the Kintore to Tealing 400 kV OHL project. The approach to RVAA for the Kintore to Tealing 400 kV OHL project has changed since Scoping. A proposed 'case by case' approach was outlined in previous correspondence with Angus Council. However, during the assessment process it became apparent that a distance-based study area was a more consistent basis for property inclusion. As such, the RVAA

⁴ Dundee City Council (2019). *Dundee Local Development Plan*. [Online] Available at: <https://www.dundee.gov.uk/service-area/city-development/local-development-plan> [Accessed 01/09/2025]

Consultee and Date	Scoping/Other Consultation	Issue Raised	Response/Action Taken
			study area for the Kintore to Tealing 400 kV OHL project is now based on a distance of 225 m from the proposed alignment, and has been informed by relevant guidance, the average height of proposed towers and the Horizontal Limit of Deviation (HLOD). Viewpoints for this assessment have not been explicitly agreed with Angus Council; however, no disagreement was noted relating to the two proposed viewpoints in the Scoping Report and it is stated by Angus Council that, with the exception of applying a 500 m threshold for RVAA, that the scope of the LVIA is “considered to be appropriate”.
Angus Council 19 May 2025	Scoping	Concern that Core Path 207 (Kirkton of Tealing to Balnuth) has not been given consideration. Agreement that suggested effects on this path do not necessitate that Recreation be scoped into the assessment, but the Core Path will need to be considered in more detail at the planning application stage.	Land Use and Recreation has been scoped out of the EIAR as an individual chapter. Effects on the visual amenity of recreational users on Core Path 207 are considered in this chapter.
British Horse Society 08 May 2025	Scoping	Concern that effects on Recreation are not considered particularly that two designated Core Paths may be affected by the Proposed Development, for which their recreational status has not been considered: - Core Path 207 Kirkton of Tealing to Balnuth passes close to the northern boundary of Tealing substation and under a section of OHL which is to be dismantled. - Core Path 210 Kirkton of Auchterhouse to Balluderon passes under the proposed alignment between AT1 and AT2.	Land Use and Recreation has been scoped out of the EIAR as an individual chapter. Effects on the visual amenity of recreational users on these Core Paths are considered in this chapter.

Desk Based Research and Data Sources

7.3.7 The following data sources have informed the assessment:

- Ordnance Survey (OS) Maps (2025);
- OS Terrain® 5 mid-resolution height data (DTM);
- Angus Council and the Energy Consents Unit (websites) to provide information of projects considered in the cumulative assessment;
- Aerial photography, Google Earth and Google Maps Street View;
- Scottish Natural Heritage (2012) Landscapes of Scotland – descriptions;
- NatureScot (2019) Scottish Landscape Character Types, Map and Descriptions;
- Angus Council (2024) Local Landscape Areas in Angus; and
- Angus Council (adopted 2016), Local Development Plan.

Field Survey

7.3.8 Field surveys were carried out to inform this assessment between November 2023 and May 2025. Visualisation photography was captured in June 2024, and although trees are in leaf during the summer months, the viewpoints

offer open views within limited vegetation and the impact of screening from vegetation is considered to be minimal. Site visits were undertaken in a range of weather conditions, including on clear, dry and bright days.

- 7.3.9 Field survey work included visits to the viewpoints, designated landscapes and travel around the Study Area to consider potential effects on landscape character and on experiences of views seen from designated landscapes, settlements, nearby residential properties and routes.

Methodological Overview

- 7.3.10 As noted in **Volume 2, Chapter 5: EIA Process and Methodology**, this chapter uses a discipline-specific assessment methodology, which has been developed in accordance with the *Guidelines for Landscape and Visual Impact Assessment 3rd Edition* (GLVIA3)⁵. The LVIA methodology is set out in detail in **Volume 4, Appendix 7.1: LVIA and Visualisations Methodology**. Whilst the assessment process differs and involves professional judgement, the outputs of the assessment have parity with the levels of significance set out in **Table 5.1 Matrix for Determining the Significance of Effects** (which describes significance levels in the EIAR).
- 7.3.11 The methodology for the production of accompanying visualisations is based on current good practice guidance as set out by NatureScot and the Landscape Institute. Detailed information about the approach to viewpoint photography, and ZTV and visualisation production, is provided in **Volume 4, Appendix 7.1: LVIA and Visualisations Methodology**.
- 7.3.12 The key steps in the methodology for assessing landscape and visual effects are as follows:
- the landscape of the Study Area is analysed, and landscape receptors identified, informed by desk and field surveys;
 - the area over which the Proposed Development would potentially be visible is established through the creation of a ZTV plan;
 - the visual baseline is recorded in terms of the different receptors (groups of people) who may experience views of the development (informed by the ZTV), how well-used a specific location is (eg a promoted viewpoint on OS maps) and the nature of their existing views and visual amenity;
 - VRAs are defined to group visual receptors, based on their geographical location, similarities between the likely nature and extent of views, and distance from the Proposed Development;
 - potential assessment viewpoints are selected, as advocated by GLVIA3 to represent a range of different receptors and views, in consultation with statutory consultees;
 - likely significant effects (including cumulative) on both the landscape as a resource (in terms of both physical and perceptual effects) and visual receptors are identified; and
 - the level (and significance) of landscape and visual effects are judged with reference to the nature of the receptor (commonly referred to as the sensitivity of the receptor), which considers both susceptibility and value, and the nature of the effect (commonly referred to as the magnitude of change), which considers a combination of judgements including scale, geographical extent, duration, and reversibility.
- 7.3.13 The LVIA includes consideration of effects arising during both the construction phase and the operational phase of the Proposed Development. Construction effects would be temporary (assumed 4-year construction period) and are expected to arise from activities such as site clearance, construction of access tracks, construction compounds, excavation of tower foundations, and removal of redundant towers. Upon completion of construction the majority of disturbed ground would be returned to its original condition, except for a small number of stone access tracks which would be permanent. Operational effects would be experienced over the lifetime of the Proposed Development and would primarily relate to the introduction of towers, conductors and permanent access tracks in the landscape.

⁵ The Landscape Institute and Institute of Environmental Management and Assessment, 2013. *Guidelines for Landscape and Visual Impact Assessment, 3rd Edition*.

Assessing Significance

- 7.3.14 The predicted significance of the effect is determined through the method of assessment detailed in **Volume 4, Appendix 7.1: LVIA and Visualisation Methodology**, and based on professional judgement, considering both sensitivity and magnitude of change as detailed in **Diagram 7.1: Judging levels of effect – Landscape and Visual (including cumulative)** below.

Sensitivity

- 7.3.15 The sensitivity of the baseline conditions, including the importance of environmental features within the Study Area or the sensitivity of potentially affected receptors, are assessed in line with best practice guidance, legislation, statutory designations and professional judgement.
- 7.3.16 Judgements regarding the sensitivity of landscape or visual receptors require consideration of both the susceptibility of the landscape or visual receptor to the type of development proposed and the value attached to the landscape receptor or view. Judgements are recorded as High, Medium or Low. Detailed information about the approach to assessment of sensitivity is provided in **Volume 4, Appendix 7.1: LVIA and Visualisations Methodology**.

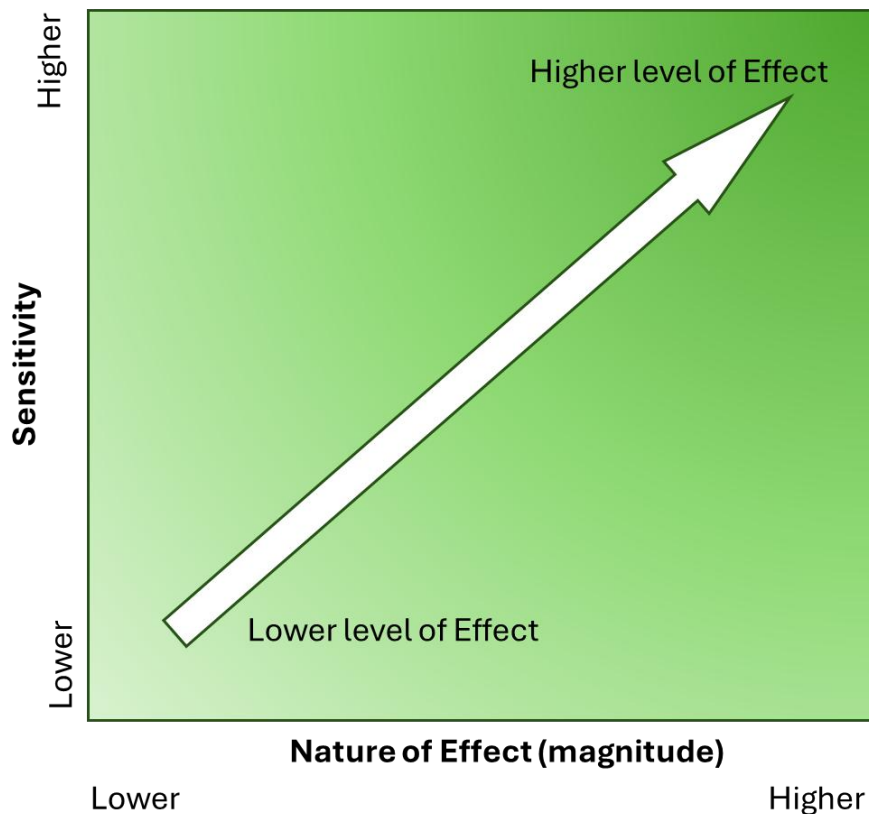
Magnitude of change

- 7.3.17 The magnitude of change is identified through consideration of the Proposed Development, the degree of change to baseline conditions predicted as a result of the Proposed Development, the duration and reversibility of an effect and best practice guidance and legislation.
- 7.3.18 Judgements regarding the magnitude of landscape or visual change are recorded as High, Medium, Low or Barely Perceptible and combine an assessment of the scale and geographical extent of the landscape or visual effect, its duration and reversibility. Detailed information about the approach to assessment of magnitude is provided in **Volume 4, Appendix 7.1: LVIA and Visualisations Methodology**.

Significance

- 7.3.19 The sensitivity of the receptor and the magnitude of the predicted change are used as a guide, in addition to professional judgement, to predict the significance of the likely effects.
- 7.3.20 This determination requires the application of professional judgement and experience to take on board the many different variables which need to be considered, and which are given different weight according to site-specific and location-specific considerations in every instance. Judgements are made on a case-by-case basis, guided by the principles set out in **Diagram 7.1: Judging levels of effect – Landscape or Visual (including cumulative)** below and in **Volume 4, Appendix 7.1: LVIA and Visualisations Methodology**.
- 7.3.21 Although a numerical or scaled weighting system is not applied, consideration of the relative importance of each aspect is made to feed into the overall decision. Levels of effect are identified as Negligible, Minor, Moderate or Major. Moderate and Major effects are considered significant in the context of the EIA Regulations.

Diagram 7.1: Judging levels of effect – Landscape and Visual (including cumulative)



Direction of Effects

7.3.22 As required by the EIA Regulations, the assessment must identify the direction of effect as either being beneficial (or positive), adverse (or negative) or neutral. The direction of landscape, visual and cumulative effects is determined in relation to the degree to which the proposal fits with the existing landscape character or views, and the contribution to the landscape or views that the Proposed Development makes, even if it is in contrast to the existing character of the landscape or views. With regard to electricity transmission infrastructure, an assessment is required to take an objective approach. Therefore, to cover the 'maximum case effect' situation, potential landscape and visual effects relating to electricity transmission infrastructure are generally assumed to be adverse (negative).

Assessment Assumptions and Limitations

Assessment Assumptions

7.3.23 The following assumptions have been made when undertaking the assessment of effects:

- It is anticipated that construction of the Proposed Development would take place over a four-year period. Further detail is set out in **Volume 2, Chapter 3: Project Description**.
- It is assumed that the Proposed Development would not have a fixed operational life. As set out in **Volume 2, Chapter 3: Project Description** and proposed in the Scoping Report (**Volume 4, Appendix 6.1: Scoping Report**), the effects associated with the construction phase can be considered to be representative of worst-case decommissioning effects, and therefore no separate assessment on decommissioning has been undertaken as part of this LVIA.

Assessment Limitations

7.3.24 No substantial information gaps have been identified during the preparation of baseline information or undertaking of the assessment, and no material limitations were experienced during field surveys. It is considered that there is sufficient information to enable an informed decision to be taken in relation to the identification and assessment of likely Significant effects on landscape and visual amenity.

Limits of Deviation

- 7.3.25 The LVIA assesses the effects of the Proposed Development as it is described in **Volume 2, Chapter 3: Project Description**, and shown on **Volume 3, Figure 3.1: Proposed Development**. The description and figures show tower locations along the alignment, and the height of each tower. The Proposed Development is modelled into the visualisations, and has informed the assessment of effects. The LVIA also considers the horizontal and vertical LODs. Full details of the horizontal and vertical LODs are provided in **Volume 2, Chapter 3: Project Description**, and are summarised below:
- the horizontal LOD allows for micrositings of the Operational Corridor⁶ up to 100 m either side of the OHL alignment centre for suspension towers and OHL conductors, and 200 m for tension towers; and
 - the vertical LOD allows for an increase or decrease in tower height up to a maximum of 9 m.
- 7.3.26 The horizontal LOD (HLOD) would be applied where there is a technical or environmental issue identified post consent, that could be avoided through a minor change to the tower position. The HLOD distance includes the operational corridor. The operational corridor extends 45 m to each side of the Alignment centreline. As such, the maximum that an individual suspension tower could be moved would be 55 m from the Alignment. The HLOD for tension towers allows for a maximum horizontal movement of 100 m.
- 7.3.27 Where the horizontal or vertical LODs are considered to allow a design that would result in a different level of effect than that found for the Proposed Development, commentary on this and a secondary judgment is provided.
- 7.3.28 The vertical LOD is indicated as a marker above each tower within the LVIA visualisation package in **Volume 3: Figures**.
- 7.3.29 The HLOD is not illustrated in the LVIA visualisation package. The HLOD would be different for each tower, and it was considered that the resulting uncertainty of the potential micrositings of towers would not be feasible to clearly illustrate. The extent of the HLOD is shown on **Volume 3, Figure 3.1: Proposed Development**.

7.4 Baseline Conditions

Summary of Landscape Baseline

- 7.4.1 This section presents an overview of the landscape baseline receptors located within the Study Area (as shown on **Volume 3, Figure 7.1: Landscape and Visual Impact Assessment Study Area**) including the existing landscape character and constituent landscape elements, as well as comments on landscape condition and any designations assigned to the landscape.
- 7.4.2 Potential landscape receptors within the Study Area are those where physical or perceptual effects may result as a consequence of the Proposed Development. Landscape receptors can be defined as follows:
- Physical landscape features: perceptible physical features (eg topographic features; woodland, hedgerows, field enclosure) which could be lost or altered through the introduction of the Proposed Development.
 - LCTs: which display both physical and perceptual characteristics which could be affected by the Proposed Development.
 - Designated landscapes: areas of landscape which are principally designated for their scenic quality or rarity and considered of particularly increased value. Often defined by a number of key characteristics and/or special qualities informed by the underlying character of the landscape. Consideration is given to how these may be affected and how the designated area may be altered by the Proposed Development.
- 7.4.3 Available documents and guidelines which describe landscape character, landscape condition and landscape designations within the Study Area were reviewed, and the relevant data is detailed below. The assessment of effects on landscape demonstrates the extent and level of effects likely to occur as a result of the Proposed Development.

⁶ The Operational Corridor (45 m either side of the centre line) would not extend outside of the horizontal LOD (See **Volume 2, Chapter 3: Project Description**)

The Site and Context

- 7.4.4 The Proposed Development is located 2 km west of the A90, between Dundee City to the south and the Sidlaw Hills to the north. The south-eastern end of the Proposed Development is adjacent to the existing Tealing Substation, and the north-west end is situated on the southern base of Balluderon Hill and Craigowl Hill.
- 7.4.5 The landcover of the area covered by the Proposed Development is a mix of arable and pastoral fields with very limited tree cover. Occasional boundary trees and gappy hedgerow are found along field boundaries. The area also includes two minor roads; one in the south-east travelling in a broadly north-south orientation, and one in the north-west travelling in a broadly east-west orientation.
- 7.4.6 The landform generally rises to the north. The lowest point of the Proposed Development is by the existing Tealing Substation to the south-east at approximately 126 m above Ordnance Datum (AOD), and the highest point is in the northwest edge at approximately 181 m AOD. The increase in elevation is most pronounced in the northern half on the approach to the Sidlaw Hills.
- 7.4.7 Due to limited tree cover and hedgerows, open views are afforded into and out of the area covered by the Proposed Development. Outward views focus on the prominent ridgeline of the Sidlaw Hills, which contain views to the north. Views into adjacent fields are afforded, with scattered properties and sparse tree belts seen across middle distance views.

The Study Area

- 7.4.8 The Study Area is described in Section 7.2 above and extends to the Sidlaw Hills to the north and northwest, Dundee City to the south, the A90 to the east and Auchterhouse to the west. Individual properties, small settlements and minor roads between the A90 and B978 are included within the eastern extents of the Study Area, reaching Backmuir at the eastern edge.
- 7.4.9 The landscape of the Study Area comprises open agricultural lowlands with scattered properties and existing infrastructure. The landform of the Study Area generally rises to the north and northwest towards the Sidlaw Hills. The highest elevation within the Study Area is at the summit of Craigowl Hill (455 m AOD), with other notable hills including Balkello Hill (395 m AOD) and Auchterhouse Hill (424 m AOD) in the northwest. These hills form a characteristic ridgeline and provide a key backdrop to the lowland landscape to the south and centre of the Study Area.
- 7.4.10 Landcover is characterised by open, small to medium scale arable and pastoral fields, with limited features to define field boundaries. Native woodland, individual trees and hedgerows are sparse across the Study Area and are generally located along minor roads or along field boundaries.
- 7.4.11 Existing infrastructure is evident across the Study Area. Several overhead lines are located within 1 km of the Proposed Development to the east, including four 132 kV overhead lines and three 275 kV overhead lines. Each of these connects into the existing Tealing Substation. Seagreen substation is located immediately adjacent to the east of Tealing Substation. Two wind turbines (46.5 m to tip) at Balkemback Farm are located in the centre of the Study Area. A number of communications masts are located across the Study Area, including three at the summit of Craigowl Hill, approximately 1 km to the north of Proposed Development and a further one to the south-west of Ironside Hill approximately 2.7 km to the north-east of the Proposed Development. The A90 is located approximately 2 km to the east of the Proposed Development.

Landscape Character Types

- 7.4.12 This section provides a description of landscape character (including constituent landscape elements) drawing on published studies, supplemented with project specific research and field work where relevant.
- 7.4.13 The landscape character of the Study Area is described in the online 'Scottish Landscape Character Assessment' published by NatureScot in 2019. The three LCTs across the Study Area are shown in **Volume 3, Figure 7.3a: Landscape Character Types**, and are shown overlaid with the ZTV in **Volume 3, Figure 7.3b: Landscape Character Types with Bare Earth Zone of Theoretical Visibility (ZTV)**.

- 7.4.14 The Proposed Development is located primarily within LCT 387: Dipslope Farmland⁷, which extends across the central portion of the Study Area. The LCT is formed by lowland farming which slopes gently from the Sidlaw Hills to the northwest, towards the coastline to the southeast. The landscape is open with little tree cover and a sparse pattern of buildings.
- 7.4.15 The northernmost part of the Proposed Development is within LCT 382: Lowland Hill Ranges⁸ which extends to the northern portion of the Study Area. This LCT includes the Sidlaw Hills which form prominent ridgelines, especially in the context of the lower lying agricultural fields surrounding the hills to the south. The southern slopes of the Sidlaw Hills have some scattered settlement, but overall, the landscape is open and affords a sense of tranquillity.
- 7.4.16 The southern part of the Study Area is within the administrative area of the city of Dundee, which has a LCT classification of Urban. As such, there are no landscape characteristics associated with this area, and given the intervening distance and lack of theoretical visibility, this area has not been considered in the LVIA.

Designated Landscapes

- 7.4.17 Angus Council's Sidlaw Local Landscape Area (LLA) is located approximately 0.5 km northwest of the Proposed Development, at its closest point. The LLA extends from Balkello Hill westwards beyond the Study Area to Lundie, incorporating a number of distinctive hills that are popular for recreation with strong cultural heritage associations, including Kinpurney Hill and Auchterhouse Hill.

Visual Baseline Conditions

- 7.4.18 This section describes the extent of theoretical visibility of the Proposed Development within the Study Area and identifies the visual receptors that will be assessed. This section also introduces the representative viewpoints that will be used to assess effects on visual receptors, including the reasons for their selection.

Analysis of ZTV

- 7.4.19 **Volume 3, Figure 7.2: Visual Receptor Areas, Viewpoint Locations and other Visual Receptors with Bare Earth Zone of Theoretical Visibility (ZTV)** shows the theoretical visibility of the Proposed Development, based on bare earth terrain. It does not account for any screening provided by vegetation or buildings. Theoretical visibility is primarily contained within 1.5 km to the north and north-west, and 2 km to the south-east of the Proposed Development, respectively, due to rising landform. To the east and south-west, the landform is relatively flat and at a similar elevation to the southern part of the Proposed Development. Therefore, theoretical visibility is longer-ranging, extending across most of the 5 km Study Area.
- 7.4.20 In the northern extents of the Study Area, theoretical visibility is indicated from the summits and south-facing slopes of Ironside Hill, Craigowl Hill, Gallow Hill and Balkello Hill, the latter of which is marked as a viewpoint on OS maps. These all form part of the Sidlaw Hills. No visibility is indicated beyond these hills. Similarly, no visibility is indicated beyond approximately 2 km to the south-east, due to the drop in elevation towards the River Tay beyond the low ridges to the north of Bridgefoot and Claverhouse.
- 7.4.21 The extent of actual visibility would reduce due to screening provided by trees, hedgerows and buildings. Actual visibility is expected to be less around the settlement of Tealing due to screening provided by woodland to the east, west and south. The buildings at Balnuith and Kirkton of Tealing would help screen visibility immediately east of these locations. The buildings near Moatmill, including the poultry sheds at Tealing Poultry Farm would provide screening, removing some areas of visibility in the south-east. The presence of forestry to the north of Dunian and Balkemback Cottages would provide further screening from some of the lower slopes of Craigowl Hill.

⁷ NatureScot (2019) SNH National Landscape Character Assessment. Landscape Character Type 387: Dipslope Farmland. [Online] Available at: <https://www.nature.scot/sites/default/files/LCA/LCT%20387%20-%20Dipslope%20Farmland%20-%20final%20pdf.pdf>

⁸ NatureScot (2019) SNH National Landscape Character Assessment. Landscape Character Type 382: Lowland Hill Ranges. [Online] Available at: <https://www.nature.scot/sites/default/files/LCA/LCT%20382%20-%20Lowland%20Hill%20Ranges%20-%20final%20pdf.pdf>

7.4.22 The ZTV has informed the selection of viewpoints, noted in **Table 7.2: Representative Viewpoint Locations**. The viewpoints are located within 0.5 km of the Proposed Development, in different directions, where the ZTV indicates visibility.

Key receptors

7.4.23 There are a number of potential visual receptors in the Study Area, including:

- People living in and moving around the Study Area, including those at individual properties within the Study Area and those in the settlements such as Tealing and Inveraldie;
- People engaged in outdoor recreation such as those using core paths (in the administrative areas of both Angus Council and Dundee City Council) and those at hill summits and promoted viewpoints including at Balkello Hill in the northwestern part of the Study Area, as well as those walking or cycling in rural areas more generally; and
- People travelling along the road network, including minor roads and the A90.

Selection for Representative Viewpoints for Assessment

7.4.24 This section sets out the viewpoints that are used to represent and assess the visual effects of the Proposed Development. The viewpoint list is a representative selection of locations, rather than an exhaustive list of locations from which the Proposed Development would be visible and is intended as a representative list of locations from a variety of VRAs across the Study Area. Impacts on viewpoints are not assessed directly, but visualisations from each location (refer to **Volume 3, Figures 7.5 – 7.7**) inform the detailed assessment of effects on views (as provided in **Volume 4, Appendix 7.3: Visual Assessment**) from VRAs across the Study Area.

7.4.25 Three viewpoints were selected across the 5 km Study Area following analysis of the ZTV and engagement with consultees (see **Table 7.1: Summary of Consultation**). These viewpoints are all publicly accessible, as advocated by GLVIA3.

7.4.26 The viewpoints are listed in **Table 7.1: Representative Viewpoint Locations** and shown alongside the ZTVs in **Volume 3, Figure 7.2: Visual Receptor Areas, Viewpoint Locations and other Visual Receptors with Bare Earth Zone of Theoretical Visibility (ZTV)**.

Table 7.1: Representative Viewpoint Locations

VP	Viewpoint Name	Easting	Northing	Reason for Selection
1	Myreton of Claverhouse	339409	736749	Represents views of the diverted Westfield - Tealing 275 kV OHL and temporary OHL, and the Emmock to Tealing tie-backs as experienced by residential receptors and road users to the southwest of Tealing.
2	Minor Road near Newlandhead and North Balluderon	337456	738465	Represent views of the diverted Alyth - Tealing 275 kV OHL (in the north of the Study Area) as experienced by residential receptors at Newlandhead and North Balluderon. This viewpoint also represents views experienced by people walking along the minor road on the ascent up to Balkello Hill.
3	Cairns, Balkello Hill	336183	739448	Represents views experienced by recreational receptors at the promoted viewpoint at the summit of Balkello Hill where expansive panoramic views are available.

Settlements

7.4.27 Settlements are those defined as such within the relevant Local Development Plans for Angus Council (2016)⁹ and Dundee City Council (2019)¹⁰. The settlement pattern across the Study Area is relatively sparse with small settlements and more isolated properties scattered along the minor road network.

⁹ Angus Council, (2016). *Angus Local Development Plan*. [Online] Available at: <https://www.angus.gov.uk/sites/angus-cms/files/Angus%20local%20development%20plan%20adopted%20September%202016.pdf> [Accessed 26/03/24]

¹⁰ Dundee City Council, (2019). *Dundee Local Development Plan* [Online]. Available at: https://www.dundee.gov.uk/sites/default/files/publications/local_development_plan_2019_for_web.pdf. [Accessed: 26/03/24]

- 7.4.28 The closest settlement to the Proposed Development is the hamlet Kirkton of Tealing, located 0.8 km to the north-east, approximately 0.5 km south-west of the larger settlement of Tealing. The villages of Inveraldie and Newbigging are located approximately 1.8 km and 2.2 km, respectively, to the east of the Proposed Development, either side of the A90. Other settlements within the Study Area include Kirkton of Auchterhouse and Auchterhouse, 2.2 km and 4.2 km to the west respectively, Bridgefoot and Strathmartine from approximately 1.9 km to the south, and the northern extents of Dundee city at approximately 2.4 km, which occupies the southern edge of the Study Area.

Residential Properties

- 7.4.29 There are a number of individual residential properties scattered across the Study Area which are not located within a recognised settlement. The closest properties to the Proposed Development are Seventeen Acres at a distance of approximately 190 m, North Balluderon at approximately 230m, and Dunian at approximately 260 m.
- 7.4.30 The majority of properties are located alongside the minor road network, in a relatively even pattern across the Study Area. There are fewer properties in the northern portion of the Study Area, on the slopes of the Sidlaw Hills, due to the more elevated nature of the area and presence of fewer roads.
- 7.4.31 Effects on residential visual amenity for residential properties within 225 m of the Proposed Development are considered further in **Volume 4, Appendix 7.4: Residential Visual Amenity Assessment**. Most residential properties beyond 225 m have been scoped out of the RVAA, however North Balluderon, is just outside this distance (227 m from the Proposed Development) so has been included. Dunian, a property to the west of Balkemback, is 260 m from the Proposed Development, but due to the potential for cumulative effects with the Kintore to Tealing 400 kV OHL this property was also included. Effects on residential visual amenity are also summarised in the Summary section of this chapter.

Routes

- 7.4.32 The Study Area includes several A and B roads, primarily positioned on the edges of the Study Area, and a network of minor roads throughout the Study Area, particularly in the centre and south. In the north and northwest of the Study Area, there are fewer roads present, due to the landform of the Sidlaw Hills, though the A928 flanks the base of several hills in the northeast of the Study Area. The A90 forms a key transport corridor in the eastern portion of the Study Area, travelling broadly north-south, and also east-west along the southern part of the Study Area within Dundee, where it meets several other major routes within the city.
- 7.4.33 Other routes across the Study Area include Core Paths and Right of Way routes. These routes are dispersed across the Study Area, including near small settlements and residential clusters, such as Kirkton of Tealing near the Proposed Development, Auchterhouse in the west and Cotton of Brighty in the east, within the Sidlaw Hills in the north of the Study Area, and several within Dundee to the south.
- 7.4.34 There are no nationally designated recreational routes within the Study Area.
- 7.4.35 Theoretical visibility of the Proposed Development from routes across the Study Area is illustrated by **Volume 3, Figure 7.2: Visual Receptor Areas, Viewpoint Locations and other Visual Receptors with Bare Earth Zone of Theoretical Visibility (ZTV)**.

Future Baseline in the Absence of the Proposed Development

- 7.4.36 In the absence of the Proposed Development, it is likely that the land would continue under the same land use and the character is therefore likely to continue as a farmland with arable land use. Over time, the landscape and visual amenity of the Study Area is likely to be influenced by a number of 'forces for change'. Forces for change are those factors affecting the evolution of the landscape and which may, consequently, affect the perception of the Study Area in the near or distant future. Although prediction of these is necessarily speculative, those of particular relevance are discussed below.
- 7.4.37 Settlement is likely to continue to locally change the nature of the Study Area, particularly given the Proposed Development's proximity to the city of Dundee, creating pressure for new housing. A number of small settlements are located in close proximity to each other, with potential future expansion of settlements, even if small in scale, likely to increase the presence of settlement in the east of the Study Area. Changes in farming and land management

practices, driven by policy regimes or climate change, may affect the appearance of the agricultural landscape, for example the further proliferation of polytunnels.

- 7.4.38 Increased emphasis on net zero targets is likely to result in the continued increase in the number of commercial-scale onshore renewable developments, including solar farms, wind farms and battery storage facilities (BESS). Furthermore, as farmers diversify income and seek opportunities to generate energy for domestic and commercial use, interest in solar energy, small-scale wind energy development and BESS may continue.
- 7.4.39 As set out in the National Energy System Operator (NESO) Pathway to 2030 Holistic Network Design report¹¹, there is a need for further reinforcement and extension of the electricity transmission network in the UK, predominantly to connect further renewable energy generation. As such, additional electrical infrastructure may be necessary within the Study Area to connect future offshore and onshore wind farms into the grid network.

Implications of Climate Change for Baseline Conditions

- 7.4.40 The UK Climate Projections (2018) for Scotland project that by 2050, summer will become hotter with decreased rainfall, while winter will become colder with increased rainfall. The increase in winter rainfall is expected to be lower for the east of Scotland in comparison to the west¹².
- 7.4.41 The Landscape Institute's Position Statement on Climate Change¹³ acknowledges that changes in average temperatures, precipitation and extreme weather events will have an effect on the landscape. However, whilst a change in rainfall and rising temperatures are anticipated, it is not considered that this will appreciably change the baseline landscape conditions.
- 7.4.42 The Angus Council Local Climate Impacts Profile, 2nd edition (LCLIP) (2012) highlights the regions vulnerability to severe weather events and the impact it has on infrastructure, based on the 2009 Met Office Climate Projections and analysis of severe weather in the council area from 2009-12. It notes that the most frequently experienced severe weather in Angus was high winds, heavy rain, and heavy snow – all of which '*significantly affect infrastructure*'¹⁴. Damage to infrastructure, which includes roads, railways and communications networks, was noted as the second largest affected service. The damage includes structural and access issues as a result of fallen trees/ windblown forestry and damage to road surfaces. An updated LCLIP based on the 2018 Climate Projections has not been provided.
- 7.4.43 A number of the aforementioned 'forces for change' are likely to occur as consequence of climate change, and from the actions responding to climate change. Potential physical and perceptible long-term changes to the landscape may occur, such as changes in soils and vegetation, and the distribution of agricultural land use and forestry.

7.5 Mitigation and Monitoring

Embedded Mitigation

- 7.5.1 Topic specific embedded mitigation (mitigation achieved through design) is outlined below. A comprehensive schedule of embedded mitigation is provided in **Volume 2, Chapter 13: Schedule of Environmental Mitigation**.
- 7.5.2 LV1: The mitigation of potential landscape and visual effects has been approached through the design of the OHLs and ancillary infrastructure. The LVIA process has informed modifications and refinements to the detailed design of the Proposed Development, including consideration of individual tower locations during the design and assessment process, to help increase separation between the Proposed Development and residential properties. The Holford

¹¹ National Grid Electrical System Operator (ESO), 2022. *Pathway to 2030 – A holistic network design to support offshore wind deployment for net zero*. [Online] Available at: <https://www.nationalgrideso.com/document/262676/download>

¹² Adaption Scotland (2021). *Climate Projections for Scotland*. [Online] Available at: https://www.adaptationscotland.org.uk/application/files/1316/3956/5418/LOW_RES_4656_Climate_Projections_report_SINGLE_PAGGE_DEC21.pdf

¹³ Landscape Institute (2021). *How Landscape Practice Can Respond to the Climate Crisis*. [Online] Available at: https://landscapewpstorage01.blob.core.windows.net/www-landscapeinstitute-org/2021/04/12510-LANDSCAPE-2030_v6.pdf.

¹⁴ Angus Council (2012). Angus Council Local Climate Impacts Profile. [Online] Available at: https://www.angus.gov.uk/sites/default/files/LCLIPv2_0.pdf

Rules¹⁵ were used to inform the siting and design of the alignment to minimise potential landscape and visual effects. In particular, alignment design sought to apply the following principles:

- Avoid hill summits and elevated ridgelines where possible to reduce the prominence of the Proposed Development on elevated skylines and its influence on landscape character and views, including from local landscape designations, settled areas, and key recreational locations (Rule 4).
- Where possible, utilise opportunities to backcloth the Proposed Development against areas of woodland and forestry and/ or higher landform to reduce the Proposed Development's prominence and position along open skylines (Rule 4).

7.5.3 Additional principles were developed to reflect the sensitivity of the local landscape of the Study Area, including:

- Increasing separation distance between the Proposed Development and residential receptors, notably those at North Balluderon and Dunian.

Applied Mitigation

7.5.4 In addition to embedded mitigation, standard good practice measures will be implemented during construction and operation of the Proposed Development, and are detailed in **Volume 2, Chapter 13: Schedule of Environmental Mitigation**. The General Applied Mitigation measures, as set out in **Volume 2, Chapter 13: Schedule of Environmental Mitigation**, include the application of SSEN Transmission's General Environmental Management Plans (GEMPs) and Species Protection Plans (SPPs) (as set out in **Volume 4, Appendix 3.2 General Environmental Management Plans (GEMPs) and Species Protected Plans (SPPs)**).

7.5.5 It is proposed that a Construction Environmental Management Plan (CEMP) will be produced in compliance with the requirements of a condition on any consent granted for the Proposed Development, in discussion with statutory stakeholders, prior to the commencement of the construction of the Proposed Development. An outline CEMP is provided in **Volume 4, Appendix 3.4 Outline Construction Environmental Management Plan (CEMP)**. The following will be key features of the CEMP:

1. Existing landscape features such as hedgerows, woodland, tree belts and stone dyke field enclosures will be retained as far as practical.
2. Any temporary disturbance to or temporary removal of existing field boundaries (eg hedgerows or fences) will be undertaken sensitively to ensure successful reinstatement of these features following completion of construction activities.
3. Following the introduction of the main components of the Proposed Development, construction works (eg construction working areas, access tracks) and previously disturbed areas will be restored and revegetated during the reinstatement phase.
4. Construction vehicles will not track across undisturbed areas outside their defined working areas and access corridor.
5. Materials and machinery will be stored tidily during the works and will not be left in place for longer than required for construction purposes to minimise effects on views and visual amenity.
6. As set out in SSEN Transmission's GEMPs for soil management, topsoil, and the seedbank within it, will be carefully stripped and will be stored within pre-identified and agreed areas to ensure safe storage.
7. Stored topsoil will be used for the progressive restoration of disturbed areas. Soft materials will be used to regrade slopes prior to promotion of natural recolonisation of vegetation.
8. Seeding will be undertaken using locally native species of plants, and to tie in with adjacent vegetation types, where considered appropriate and essential to prevent erosion.

¹⁵ SSEN Transmission (2023) Procedures for Routeing Overhead Lines and Underground cables of 132kV and above, Annex 1: Holford Rules: Guidelines for the Routeing of New High Voltage Overhead Transmission Lines with NGC 1992 and SHETL 2003 Notes

9. On completion of the construction phase, all equipment and temporary infrastructure not required for future operational use will be dismantled and removed, including removal of construction waste and its appropriate disposal.

7.5.6 **Table 7.3: Applied Mitigation** provides a breakdown of the applicable mitigation measures, the stages that these should be applied, and who is responsible for their implementation.

Table 7.2: Applied Mitigation

Mitigation Measure	Project Stage/Timing	Responsibility
LV2: Adherence to all relevant SSEN Transmission GEMPs, including soil management, working in sensitive habitats, forestry, and restoration as well as best practice principles on restoration following construction.	Construction	Principal Contractor
LV3: Preparation and implementation of CEMP which shall include but not be limited to the following: protection of landscape features, reinstatement of landscape features, soil management, ecological management and general construction practices (including storage of machinery and materials, vehicle movements and removal of construction waste). Post consent, a Landscape Mitigation Plan to sit alongside the CEMP will be produced in accordance with the Outline Site Restoration Plan and Visual Impact Management Plan to be included within the CEMP.	Construction	Principal Contractor

Further Survey Requirements and Monitoring

7.5.7 **Table 7.4: Monitoring** outlines an appropriate monitoring measure that can be adopted, the stage of the Proposed Development that it should be applied in, and who is responsible for its implementation.

Table 7.3: Monitoring

Monitoring Measure	Project Stage/Timing	Responsibility
LV4: Survey and monitoring of the proposed landscape restoration proposals within the Operational Corridor, to ensure the proposals are implemented successfully and the predicted mitigation of landscape and visual effects is delivered. Monitoring shall apply to Applied Mitigation and Additional Mitigation.	Ongoing during construction. Post-construction on an annual basis for five years.	Principal Contractor/ landowner

7.6 Assessment of Likely Significant Effects - Construction

7.6.1 The assessment of effects identified above is based on the project description as outlined in **Volume 2, Chapter 3: Project Description**. Unless otherwise stated, potential effects identified are considered to be adverse. The full assessment of likely effects on landscape and visual receptors during construction are provided in **Volume 4, Appendix 7.2: Landscape Assessment** and **Appendix 7.3: Visual Assessment**.

Potential sources of Construction Effects

7.6.2 During construction (four-year period) the following elements have the potential to result in effects on the physical fabric of the landscape, as well as the landscape character and/or visual amenity within the wider Study Area:

- Site clearance including vegetation clearance;
- Construction of a new access tracks (permanent and temporary);
- Construction of site infrastructure (eg construction compounds);
- Construction of laydown areas;

- Excavation and construction of tower foundations;
- Erection of towers;
- HGV and abnormal load deliveries to site and movement of vehicles on site; and
- Reinstatement work, including restoration of temporary tracks and other areas, removal of temporary accommodation works, and reinstatement of disturbed areas.

7.6.3 Most of the effects occurring during this phase relate to physical disturbance of existing landcover and potential for long term change and loss of landscape features including sections of arable fields and hedgerow. Such effects would also have consequent perceptual effects on the landscape character and visual amenity within the Study Area. The degree of effects however would vary throughout the construction period due to the nature of different construction activities and their duration at any one location within the Study Area. A large proportion of the construction effects would be managed through adoption of good practice and careful construction management and monitoring regimes (such as those presented above in **Section 7.5** above and in **Volume 2, Chapter 13: Schedule of Environmental Mitigation**).

Predicted Construction Effects

Landscape Effects – Construction

7.6.4 The construction of the Proposed Development would have both physical and perceptual effects on the landscape character of LCT 387: Dipslope Farmland and LCT 382: Lowland Hill Ranges. Both LCTs are considered to be of **Medium** sensitivity. **Moderate (Significant)** effects on landscape character would occur no more than 1 km from the Proposed Development, in the area between Myreton of Claverhouse and Balkello within LCT 387, and across the southern slopes of Craigowl Hill within LCT 382. Such Significant effects would be the result of physical changes to landscape features such as disturbance to ground cover and construction (or dismantling) of steel lattice towers and access tracks, which would result in a **Medium** magnitude of change locally, in both LCTs, reducing to a low magnitude of change for more distant areas (beyond 1 km from the Proposed Development). These Significant effects also take into account the perceptual effects as a result of visibility of construction activities (such as the movement of vehicles and machinery) and partially constructed steel lattice towers would also occur within these LCT. Beyond 1 km of the construction works, effects on landscape character would reduce to **Minor (Not Significant)** due to the decreased perceptibility of construction activity.

7.6.5 The Sidlaw LLA is located approximately 0.5 km to the northwest of the Proposed Development. There would be no physical effects arising from the construction of the Proposed Development on the Sidlaw LLA. Perceptual effects on the landscape of the Sidlaw LLA may be experienced as a result of construction activity. Construction activity would be experienced in close to distant views from the southeastern extents of the Sidlaw LLA, where it would appear largely backclothed by distant landform. Given the temporary nature of construction effects, and that effects would be perceptual and not physical, it is considered that effects on the special qualities of the LLA during construction would be **Minor (Not Significant)** and would not affect the integrity of this local landscape designation.

Visual Effects – Construction

7.6.6 The construction of the Proposed Development would have effects on a range of visual receptors within the VRAs in the Study Area, including residents, road users and recreational receptors broadly between the settlement of Inveraldie, the northern edge of Dundee, and Craigowl Hill. Eight of the nine VRAs within the Study Area are considered to be of **High** sensitivity for residential receptors and **Medium** sensitivity for other receptors (eg road users and recreational receptors). VRA 5 (Ark Hill, Balkello, Craigowl and Gallow Hills) does not have any residential receptors but is deemed to be of **High** sensitivity for recreational receptors in the Sidlaw Hills.

7.6.7 **Moderate or Major (Significant)** effects on views and visual amenity would affect receptors within approximately 1 km of the Proposed Development (eg VRA 1 (Balkemback), VRA 2 (Balnuith), VRA 3 (Templeton, Gallowhill, Myreton of Claverhouse, and Inveraldie), VRA 4 (Balluderon and Balkello), VRA 5 (Ark Hill, Balkello, Craigowl and Gallow Hills), and VRA 8 (Tealing and Kirkton of Tealing)), where close-to-middle distance views of construction activity would be available, and would result in **Medium** or **High** magnitude of change. A lower magnitude of change is expected from VRA 5 (Ark Hill, Balkello, Craigowl and Gallow Hills) but given the **High** sensitivity of receptors in this VRA, effects are still expected to be significant for the closer receptors. Significant effects would be the result of the

visibility of construction activity including the erection of steel lattice towers, creation and upgrading of access tracks, vehicle movements and lighting in hours of darkness. Construction activities associated with the dismantling of the Alyth – Tealing 275 kV OHL as part of the Proposed Development would be most visible in VRA 2 (Balnuith), VRA 6 (Prieston and Coldstream), and the eastern extents of VRA 1 (Balkemback).

- 7.6.8 From more distant receptors beyond 1 km (eg VRA 7 (North of Tealing, Huntingfaulds, Todhills, and Cotton of Brighty) and VRA 9 (Downfield), intervening features including vegetation and buildings would partially or fully screen construction works, particularly ground level activity. The perceptibility of construction activity would reduce as the distance between the Proposed Development and receptors increases, with many views limited to the erection of steel lattice towers (or dismantling of the Alyth – Tealing 275 kV OHL) and threading of conductors.

Additional Mitigation and Residual Construction Effects

- 7.6.9 No effective mitigation has been identified that is not already included as embedded mitigation or applied mitigation, as set out in **Section 7.5**. No additional mitigation measures are proposed. As such, the residual effects as a result of construction would remain the same as identified in the assessments set out within **Volume 4, Appendix 7.2: Landscape Assessment** and **Appendix 7.3: Visual Assessment**.

7.7 Assessment of Likely Significant Effects – Operation

- 7.7.1 This section summarises the likely Significant effects which have been identified during the operational phase, based on the project description as outlined in **Volume 2, Chapter 3: Project Description**. Unless otherwise stated, potential effects identified are considered to be adverse. The full assessment of likely effects on landscape and visual receptors during operation are provided in **Volume 4, Appendix 7.2: Landscape Assessment** and **Appendix 7.3: Visual Assessment**.

Potential sources of Operational Effects

During operation, effects on landscape character and visual receptors would arise from the introduction of new steel lattice towers and conductors within the landscape. There is potential for these effects to result in significant adverse effects on landscape character and visual receptors within the Study Area. The Proposed Development also includes the permanent removal of some existing steel lattice towers.

- 7.7.2 Cumulative effects on landscape character and visual receptors may also arise from the Proposed Development and other existing or proposed developments. These are discussed below at **Section 7.9**, and the full assessment of likely cumulative effects on landscape and visual receptors during operation are provided in **Volume 4, Appendix 7.5: Cumulative Landscape and Visual Assessment**.
- 7.7.3 All operational effects are considered to be long-term, permanent and adverse, unless stated otherwise.

Predicted Operational Effects

Landscape Effects – Operation

- 7.7.4 The Proposed Development would have both physical and perceptual effects on the landscape character of LCT 387: Dipslope Farmland and LCT 382: Lowland Hill Ranges. Both LCTs are considered to be of **Medium** sensitivity. A **Medium** magnitude of change within the immediate context of the Proposed Development, between Balkello Woodland in the west, Wynton and Myreton of Claverhouse in the south, and Balnuith and Balkemback in the east within LCT 387, and across the southern slopes of the Sidlaw Hills (eg Balkello Hill and Craigowl Hill) within LCT 382 would give rise to **Moderate (Significant)** effects. Such **Significant** effects would be the result of physical changes to landscape features including the introduction of large scale vertical infrastructure into the landscape, which would alter the distinctive profile of the Sidlaw Hills in LCT 382, introduction of permanent access tracks, and the localised loss of agricultural land. Perceptual effects would also contribute to these **Significant** effects in these LCTs, due to the perceived large scale of the Proposed Development in relation to the **Medium** scale of the underlying landscape, particularly as it ascends the lower slopes of the Sidlaw Hills near Balluderon. The Proposed Development would also slightly increase the influence of vertical infrastructure within these LCTs. Beyond 1 km from the Proposed Development, effects on landscape character would reduce to **Minor (Not Significant)** due to the decreased perceptibility of the Proposed Development which would reduce the magnitude of change from more distant

locations. In addition, there will be very localised beneficial effects for a section of LCT 387 around Balnuth and Prieston, due to the removal of OHL.

- 7.7.5 The Sidlaw LLA is located approximately 0.5 km northwest of the Proposed Development. As such, effects as a result of the Proposed Development would be perceptual. Views of the Proposed Development would be experienced from hill summits within the LLA which are afforded “*panoramic views*”¹⁶, however the Proposed Development would appear backclothed against distant landform, which would help reduce its overall prominence. Additionally, the Proposed Development would be located within the setting of the LLA to the southeast, and would be seen in views towards the Sidlaw LLA, with potential to affect the “*distinctive profile of smooth rounded hills*”¹⁷. Given that the Proposed Development would be seen largely backclothed and in the context of existing OHL infrastructure outside the LLA, it is considered that the Proposed Development would have a low magnitude of change on the special qualities of the LLA. Effects are judged to be **Minor (Not Significant)**. It is considered that the Proposed Development would not affect the integrity of this local landscape designation.

Visual Effects – Operation

- 7.7.6 During operation, the Proposed Development would have visual effects on a range of visual receptors within the VRA in the Study Area, including residents, road users and recreational receptors broadly between the settlement of Inveraldie, the northern edge of Dundee, and Craigowl Hill. Eight of the nine VRAs within the Study Area are considered to be of **High** sensitivity for residential receptors and **Medium** sensitivity for other receptors (eg road users and recreational receptors). VRA 5 (Ark Hill, Balkello, Craigowl and Gallow Hills) does not have any residential receptors but is deemed to be of **High** sensitivity for recreational receptors in the Sidlaw Hills.
- 7.7.7 **Moderate or Major (Significant)** effects on views and visual amenity would occur where close-to-middle distance views of the Proposed Development would give rise to a **Medium** or **High** magnitude of change. This is largely restricted to receptors that would be within 1 km of the new infrastructure, for example residents in VRAs 1 (Balkemback), 3 (Templeton, Gallowhill, Myreton of Claverhouse, and Inveraldie), and 4 (Balluderon and Balkello). Such effects would be the result of the introduction of large scale vertical features that would be prominent in views as illustrated by VP1: Myreton of Claverhouse, southwest of Tealing in VRA 3 (**Volume 3, Figure 7.5: Viewpoint 1: Myreton of Claverhouse, southwest of Tealing**) and VP2: Minor Road near Newlandhead and North Balluderon in VRA 4 (**Volume 3, Figure 7.6: Viewpoint 2: Minor Road near Newlandhead and North Balluderon**).
- 7.7.8 From more distant locations (generally beyond 1 km), including from Balkello Hill within VRA 5 (Ark Hill, Balkello, Craigowl and Gallow Hills), the intervening distance and the backclothing provided by distant landform would reduce the perceptibility of the Proposed Development (as illustrated by VP3: Cairns, Balkello Hill in VRA 5 (**Volume 3, Figure 7.7: VP3: Cairns, Balkello Hill**)). Additionally, from other locations generally beyond 1 km (eg VRA 7 (North of Tealing, Huntingfaulds, Todhills, and Cotton of Brighty) and VRA 9 (Downfield)), visibility of the Proposed Development would reduce due to the increased distance and the presence of intervening vegetation and buildings which would help to partially or fully screen the Proposed Development in views. Effects on these more distant and obscured views are considered to be **Minor (Not Significant)**.
- 7.7.9 For receptors in VRAs 2 (Balnuth) and 8 (Tealing and Kirkton of Tealing), the Proposed Development will result in the removal of the closest OHL. A similar quantity of electrical infrastructure would be visible to receptors in these areas, but seen at a greater distance. Effects are considered to be **Minor (Not Significant)**, however the dismantling of the Alyth to Tealing 275 kV OHL is considered to have localised **Beneficial** effects which are **Major (Significant)** for residential receptors around Prieston in VRA 8, and for residential and recreation receptors within Balnuth in VRA 2.

Residential Visual Amenity

- 7.7.10 This section summarises the findings of the RVAA which is presented in **Volume 4, Appendix 7.4 Residential Visual Amenity Assessment**. The RVAA considers whether the visual effects of the Proposed Development, as

¹⁶ Angus Council, 2024. Local Landscape Areas in Angus. Final Report. (Online) Available at:

¹⁷ Ibid.

seen from residential properties, are so great as to affect the 'living conditions' experienced by residents at those properties.

- 7.7.11 The Proposed Development would be visible from three residential properties included within the RVAA (see **Volume 3, Figure A7.4.1 Residential Properties included within the RVAA** and wireline illustrations in **Figures A7.4.2-4**). These properties are Dunian, North Balluderon and Seventeen Acres. The Proposed Development would result in a **High** magnitude of change from the properties of Dunian and North Balluderon, but is not considered to be so overbearing or dominant in views as to breach the residential visual amenity threshold (RVAT).
- 7.7.12 At the property of Dunian, located to the south of the Sidlaw Hills this conclusion has been made based on the intervening distance between the property and the closest tower, and the sense of separation which would be provided by the minor road immediately south of the property. The proposed Kintore to Tealing 400 kV OHL would be closer to the property but seen in oblique views from the primary elevation and garden. It was judged that the views of the Proposed Development, either alone or cumulatively, would not be so dominant as to breach the RVAT.
- 7.7.13 From North Balluderon, there would be no breach of the RVAT due to views of the Proposed Development being filtered by intervening trees and buildings around the property in views from the eastern elevation, rear garden and access track. Furthermore, views to the north and west would be largely unaffected by the Proposed Development.
- 7.7.14 From Seventeen Acres, there would be no breach of the RVAT as views of the Proposed Development would be seen in views to the west and views from other directions, including the primary elevation to the southeast, would be unaffected. Furthermore, the Proposed Development would be located beyond the existing Alyth to Tealing 275 kV OHL which would be dismantled as part of the Proposed Development, therefore increasing the separation between the property and OHL infrastructure to the west. The dismantling of the Alyth to Tealing 275 kV OHL would likely result in a **High** magnitude of change from this property, and the change in view would be beneficial. The effect of the Proposed Development on this property is therefore considered to be beneficial, and there is no potential for the RVAT to be breached.

Additional Mitigation and Residual Operational Effects

- 7.7.15 No effective mitigation has been identified that is not already included as embedded mitigation or applied mitigation, as set out in **Section 7.5**. No additional mitigation measures are proposed. As such, the residual effects as a result of operation would remain the same as identified in the assessments set out within **Volume 4, Appendix 7.2: Landscape Assessment** and **Volume 4, Appendix 7.3: Visual Assessment**.

7.8 Assessment of Likely Significant Effects - Decommissioning

- 7.8.1 The Proposed Development would not have a fixed operational life. The effects associated with the construction phase can be considered to be representative of worst-case decommissioning effects, and therefore no separate assessment on decommissioning has been undertaken as part of this LVIA.

7.9 Assessment of Residual Cumulative Effects

Predicted adverse effects on landscape and visual amenity arising from the construction of the Proposed Development have the potential to contribute to cumulative effects upon landscape character, landscape designations and visual receptors within the 5 km Study Area.

- 7.9.1 The below summarises the likely significant cumulative effects which have been identified during both the construction and operational phases, based on the project description as outlined in **Volume 2, Chapter 3: Project Description**. Unless otherwise stated, potential effects identified are considered to be adverse. The full assessment of likely cumulative effects on landscape and visual receptors during construction and operation are provided in **Volume 4, Appendix 7.5: Cumulative Landscape and Visual Assessment**.
- 7.9.2 The projects considered within the cumulative assessment are listed in **Table 7.5.1 of Volume 4: Appendix 7.5: Cumulative Landscape and Visual Assessment**.

Summary of Cumulative Landscape and Visual Effects during Construction

- 7.9.3 The Proposed Development in combination with the proposed Emmock substation and the proposed Kintore to Tealing 400 kV OHL, is expected to give rise to **Significant** temporary cumulative landscape and visual effects, during the construction phase. This is largely due to the scale of construction activities, and the overlap of the construction phases requiring concurrent activities to the northwest of existing Tealing Substation.
- 7.9.4 In relation to the other Inter Developments (as set out in **Table 7.5.1 of Volume 4: Appendix 7.5: Cumulative Landscape and Visual Assessment**), should construction overlap, there is potential for the Proposed Development to give rise to localised **Significant** cumulative landscape and visual effects when combined with these projects, during construction. These effects may be experienced in the area to the northwest and west of the existing Tealing and Seagreen Substations, and there would be in-combination effects with Balnuith (consented) and Myreton (proposed) BESS schemes. It is expected that Fithie Energy Park (proposed) would be constructed after the Proposed Development and therefore no cumulative effects would occur. The Fithie Energy Park is anticipated to be constructed between 2031 and 2032 and is therefore unlikely to overlap with the construction of the Proposed Development.
- 7.9.5 When considering the cumulative effects of construction of all the proposed developments in the Study Area, the following **Significant** effects are anticipated:
- Effects on landscape character of LCTs 382 and 387 would be **Significant** within the area between south of Myreton of Claverhouse and the lower slopes of Craigowl Hill and Balkello Hill; and
 - **Significant** effects on views arising from construction activity would affect some receptors in VRAs 1 (Balkemback), 2 (Balnuith), 3 (Templeton, Gallowhill, Myreton of Claverhouse, and Inveraldie), 4 (Balluderon and Balkello) and 6 (Prieston and Coldstream) as multiple construction projects would be visible to people in these areas, affecting combined and sequential views.
- 7.9.6 The contribution (additional cumulative effect) of the Proposed Development to these cumulative effects is considered to be **Not Significant**.
- 7.9.7 There would be very limited (**Not Significant**) effects on the special qualities of the Sidlaw LLA as construction activities associated with the Proposed Development and other cumulative schemes would be backclothed by distant landform and would be seen in the context of existing high voltage OHLs when viewed from within the Sidlaw LLA.

Summary of Cumulative Landscape and Visual Effects during Operation

- 7.9.8 The Proposed Development is expected to give rise to **Significant** cumulative landscape and visual effects when combined with the proposed Emmock Substation and the proposed Kintore to Tealing 400 kV OHL during the operational phase. This is due to the concentration of these developments alongside the Proposed Development to the northwest of the Tealing and Seagreen Substations, combined with the vertical prominence of the Proposed Development and other OHLs.
- 7.9.9 The Proposed Development is also expected to give rise to very localised **Significant** cumulative landscape and visual effects when combined with the other Inter Developments in the Study Area (Balnuith BESS, 17 Acres BESS, Myreton BESS and Fithie Energy Park). This is due to the scale of Proposed Development which would be seen closer to the Fithie Energy Park (proposed) and Balnuith BESS (consented), and the location of these projects in the context of the existing Tealing and Seagreen Substations. **Significant** effects on landscape visual receptors would be largely limited to the area to the south and southeast of the Proposed Development, particularly near Balnuith.
- 7.9.10 When considering the cumulative effects of operation of all the proposed developments in the Study Area, the following **Significant** effects are anticipated:
- Effects on landscape character of LCT 387 and 382 would be **Significant** within the area between south of Myreton of Claverhouse and the lower slopes of Craigowl Hill and Balkello Hill; and
 - **Significant** effects on views arising during operation would affect some receptors in VRAs 1 (Balkemback), 2 (Balnuith), 3 (Templeton, Gallowhill, Myreton of Claverhouse, and Inveraldie), and 4 (Balluderon and Balkello), as multiple infrastructure projects would be visible to people in these areas, affecting combined and sequential views.

- 7.9.11 There would be very limited (**Not Significant**) effects on the special qualities of the Sidlaw LLA as the Proposed Development would result in less towers being visible overall, with the Proposed Development and other cumulative schemes being backclothed by distant landform and seen in the context of existing high voltage OHLs when viewed from the Sidlaw LLA.
- 7.9.12 The contribution (additional cumulative effect) of the Proposed Development to these cumulative effects is considered to be **Not Significant**.

7.10 Summary of Significant Effects

- 7.10.1 **Table 7.4** below summarises the predicted residual effects of the Proposed Development on landscape and visual amenity prior to and following to application of additional mitigation.
- 7.10.2 There is no proposed additional mitigation during construction or operation, above and beyond the embedded and applied mitigation measures set out in **Section 7.5**. As such, the residual effects as a result of construction would remain the same as identified in the assessments set out within **Volume 4, Appendix 7.2: Landscape Assessment** and **Appendix 7.3: Visual Assessment**.

Table 7.4: Summary of Significant Effects

Predicted Effects	Significance (Construction)	Significance (Operation)	Cumulative Effects (Construction)	Cumulative Effects (Operation)
Landscape Character Types				
LCT 387 – Dipslope Farmland	Moderate (Significant) locally within the LCT (within no more than 1 km of the Proposed Development) and Minor (Not Significant) for remaining parts of the LCT within the Study Area.	Moderate (Significant) locally within the LCT and Minor (Not Significant) beyond this area. There will be very localised beneficial effects for a section of the LCT around Balnuith and Prieston.	Significant effects	Significant effects
LCT 382 – Lowland Hill Ranges	Moderate (Significant) locally within the LCT (within approximately 1 km of the Proposed Development) and Minor (Not Significant) for remaining parts of the LCT.	Moderate (Significant) locally within the LCT (extending north to Balkello Hill and Craigowl Hill) and Minor (Not Significant) for remaining parts of the LCT.	Significant effects	Significant effects
Landscape Designations				
Sidlaw Hills LLA	Minor (Not significant)	Minor (Not significant)	Not significant	Not significant
Visual Receptor Areas				
VRA 1	Moderate (Significant)	Major (Significant)	Significant effects	Significant effects
VRA 2	Major (Significant)	Minor (Not significant) – Beneficial Major (Significant) for residential and recreational receptors in and around Balnuith.	Significant effects	Significant effects
VRA 3	Moderate (Significant)	Moderate (Significant)	Significant effects	Significant effects
VRA 4	Moderate (Significant)	Moderate (Significant)	Significant effects	Significant effects
VRA 5	Moderate (Significant)	Minor (Not Significant)	Not significant	Not significant
VRA 6	Major (Significant)	Minor (Not significant) – Beneficial Major (Significant) for residential receptors around Prieston.	Significant effects	Not significant
VRA 7	Minor (Not significant)	Minor (Not significant)	Not significant	Not significant
VRA 8	Moderate (Significant)	Minor (Not Significant)	Not significant	Not significant
VRA 9	Minor (Not significant)	Minor (Not significant)	Not significant	Not significant