CONTENTS

8. LANDSCAPE AND VISUAL IMPACT

8.1 Introduction

8.1.1 This chapter reports the assessment of likely significant effects on the landscape and on visual amenity arising from the Proposed Development. This chapter:

- describes the assessment methodology and significance criteria used in the assessment;
- describes the landscape baseline and the visual amenity baseline;
- sets out the potential impacts of the Proposed Development,
- describes the mitigation measures proposed to address likely significant effects; and
- describes the residual significant effects remaining following the implementation of mitigation including cumulative effects.

8.1.2 This chapter is not intended to be read as a standalone assessment. Reference should be made to the introductory chapters of this EIA report **(Volume 2, Chapters 1 to 6).**

8.1.3 The Proposed Development is described in detail in **Volume 2, Chapter 3: Project Description**. The key points relevant to this assessment are that the maximum height of the buildings within the substation would be 14.5 m, on a development platform at 130.5 m AOD.

8.1.4 In addition to the substation, two terminal towers for the BBNP 400 kV OHL will be erected on the north side of the site. These towers form part of a separate development project that will be applied for through the Scottish Government Energy Consents Unit (ECU) and are therefore only considered in this chapter for the purposes of assessment of cumulative impact.

Landscape

8.1.5 Landscape assessment considers the effects of change and development on the landscape as a resource. The character of the landscape derives from a combination of physical factors, natural processes, and human intervention. Landscape effects are a combination of the physical changes to the fabric of the landscape arising from the Proposed Development and perceptual changes, meaning the way these physical changes alter how the landscape is perceived.

8.1.6 The landscape assessment considers effects on significant individual elements of the landscape where appropriate, as well as effects on characteristic combinations or patterns of elements and how these are seen to affect its character and quality.

Visual

8.1.7 Visual assessment is concerned with the general visual amenity of people who may be affected by the Proposed Development and their perception and responses to changes in these views.

8.1.8 Visual effects arise from changes in the composition and character of views available in the area affected. The assessment considers the likely change that would be experienced, including the effects both on specific views and on general amenity – the pleasantness of the view or outlook – that the people affected enjoy.

8.1.9 For the purposes of the assessment, whilst it is the people living, working, passing through or enjoying recreational activities in the area who see the views and enjoy the visual amenity, it is the places or routes they may occupy that are mapped and described as the visual receptors.

8.1.10 This chapter is accompanied by the figures and appendices listed in **Table 8-1**, below**.**

Table 8-1 Supporting Figures and Appendices

Volume 3 Figures
Figure 8.1: Zone of Theoretical Visibility (bare ground) and Viewpoint Locations
Figure 8.2: Zone of Theoretical Visibility (with screening) and Viewpoint Locations
Figure 8.3: Cumulative Zone of Theoretical Visibility
Figure 8.4: Topography
Figure 8.5: Landscape Character
Figure 8.6: Visual Receptors
Figure 8.7: Landscape and Ecological Mitigation Plan
Figure 8.8 a-f: Viewpoint 01, View looking south from minor road near Dalgarno's Croft
Figure 8.9 a-f: Viewpoint 02, View looking southwest from minor road, near Northburn Farm
Figure 8.10 a-f: Viewpoint 03, View looking south from minor road near Hill of Corsegight
Figure 8.11 a-f: Viewpoint 04, View from minor road looking west-southwest at South Whitebog
Figure 8.12 a-f: Viewpoint 05, By Culsh Monument
Figure 8.13 a-f: Viewpoint 06, View looking northwest from the C121B, near Upperton
Figure 8.14 a-f: Viewpoint 07, View northwest from the C121S near Mill of Greens
Figure 8.15 a-f: Viewpoint 08, View northwest from the C1S near Mains of Greens
Figure 8.16 a-f: Viewpoint 09, View north from the minor road at Bridge of Swanford
Figure 8.17 a-f: Viewpoint 10, View northwest from C121B, east of Deers Hill
Figure 8.18 a-f: Viewpoint 11, View northeast from unclassified road near Middletack
Figure 8.19 a-f: Viewpoint 12, View east from minor road on Northburnhill
Volume 4 Technical Appendices
Appendix 8.1: LVIA Methodology
Appendix 8.2: Landscape Sensitivity
Appendix 8.3: Viewpoint Descriptions

8.2 Legislation, Policy and Guidance

Legislative Framework

8.2.1 The applicable legislative framework is summarised as follows:

8.2.2 European Landscape Convention (ELC)[1]; aims to encourage public authorities to adopt policies and measures to ensure: "*landscape to be integrated into regional and town planning policies and in cultural, environmental, agricultural, social and economic policies, as well as any other policies with possible direct or indirect impacts on landscape*". It also acknowledges that all landscapes can be important, whether they are designated or not.

8.2.3 There is no legislation specifically covering landscape character or visual amenity but the spirit of the ELC is carried through in UK planning policy and government guidance.

[1] Council of Europe, European Landscape Convention, ETS No 176 (2007)

Policy

8.2.4 The following planning policies are relevant to the Proposed Development in relation to landscape and visual amenity:

- National Planning Framework 4[2], Policy 4 Natural Places; and
- Aberdeenshire Local Development Plan (2023)[3], Policy E2 Landscape, Policy E3 Forestry and Woodland and Policy PR1 Protecting Important Resources.

Guidance

8.2.5 This assessment has been carried out in accordance with:

- The Guidelines for Landscape and Visual Impact Assessment, Third Edition (GLVIA3)[4];
- The Landscape Institute Technical Guidance Note 02/21 Assessing landscape value outside national designations[5]; and
- NatureScot Landscape Sensitivity Assessment Guidance Methodology[6] was referred to in defining the sensitivity of the local landscape.

8.2.6 Photography has been undertaken and visualisations created in accordance with the Landscape Institute Technical Guidance Note 06/19 Visual Representation of development proposals[7]). Further information on methodology is given in **Volume 4, Appendix 8.1: LVIA Methodology**.

8.3 Scope of the Assessment

Overview

8.3.1 As noted above, this chapter reports the assessment of likely significant effects on the landscape and on visual amenity arising from the Proposed Development. It describes the assessment methodology, the baseline conditions at the Site and in the area that may be affected, and the mitigation that has been built in to the design.

8.3.2 It analyses the landscape and considers its sensitivity to the development proposed. It defines the extent to which the Proposed Development would be visible, sets out the range and type of people (or places they may occupy) likely to be affected, and it is illustrated with a representative sample of views.

8.3.3 The assessment reports on the residual effects of the design, taking into account committed mitigation.

8.3.4 The scope of this assessment has been agreed with Aberdeenshire Council. Details of items and issues scoped out are given in **Table 8-2**, and a summary of consultation responses in **Table 8-3**. Further detail is given in **Volume 2, Chapter 6: Scope and Consultation**.

8.3.5 There are no Tree Preservation Orders (TPOs) covering any part of the Site and they are therefore not discussed further. Gardens and Designed Landscapes (GDLs) on the Historic Environment Scotland inventory are addressed in **Volume 2, Chapter 10: Cultural Heritage.**

[2] Scottish Government, (2023) National Planning Framework 4 (NPF4) Available at: https://www.gov.scot/publications/national-planning-framework-4/ [Accessed August 2024]

[3] Aberdeenshire Council (2023), Aberdeenshire Local Development Plan 2023. Available at: https://www.aberdeenshire.gov.uk/planning/plans-and-policies/ldp-2023. [Accessed August 2024]

[4] Landscape Institute and Institute of Environmental Management and Assessment, (2013). 'Guidelines for Landscape and Visual Impact Assessment', 3rd Edition.

[5] The Landscape Institute, (2021). Assessing landscape value outside national designations. Available at https://www.landscapeinstitute.org/technical-resource/assessing-landscape-value-outside-national-designations/. [Accessed August 2024]

[6] NatureScot, (April 2024), Landscape Sensitivity Assessment Guidance (Methodology) available at https://www.nature.scot/doc/landscape-sensitivity-assessment-guidance-methodology#Introduction. [Accessed August 2024]

[7] The Landscape Institute, (2019). Technical Guidance Note 06/19 Visual Representation of Development Proposals. (this is consistent with NatureScot visualisation guidance)

8.3.6 The visual assessment includes consideration of residential receptors. However, it should be noted that whilst a significant effect on an isolated residential receptor is an effect on their private visual amenity, a significant effect on a settlement may involve a degree of effect on the public good.

Zone of Theoretical Visibility

8.3.7 The Zone of Theoretical Visibility (ZTV) shown on **Volume 3, Figure 8.1: Zone of Theoretical Visibility (bare ground) and Viewpoint Locations** was produced by computer modelling using the ArcGIS viewshed analysis tool. The Proposed Development was overlain on a digital terrain model (DTM) and 'lines of sight' generated to show where these points may be seen from and thus the places from which the Proposed Development may be visible. This is a 'bare ground' ZTV, making no allowance for screening from buildings or vegetation. In many places, particularly more distant from the site, existing buildings and walls, tall hedges and blocks of woodland would partially or wholly screen the view. This can be considered a 'worst-case' picture of the extent to which the Proposed Development may be visible.

8.3.8 The ZTV shown on **Volume 3, Figure 8.2: Zone of Theoretical Visibility (with screening) and Viewpoint Locations** is based on a digital surface mode. This takes into account all objects that may contribute to screening views, such as built form, trees and woodlands, in addition to the underlying topography. This can be considered a 'best-case' picture of the extent to which the Proposed Development may be visible.

8.3.9 **Volume 3, Figure 8.1: Zone of Theoretical Visibility (bare ground) and Viewpoint Locations** and **Volume 3, Figure 8.2: Zone of Theoretical Visibility (with screening) and Viewpoint Locations** show the theoretical visibility of the Proposed Development alone. **Volume 3**, **Figure 8.3: Zone of Theoretical Visibility (Cumulative)** is a 'bare ground' ZTV as **Volume 3, Figure 8.1: Zone of Theoretical Visibility (bare ground) and Viewpoint Locations** showing the potential visibility of the two terminal towers of the BBNP 400kV OHL overlain on the ZTV of the Proposed Development.

Extent of the Study Area

8.3.10 The Study Area for the visual assessment is based on the results of the visibility study as, by definition, visual effects can only occur where at least some part of the development can be seen. This is then cut-off at a Study Area limit to ensure the assessment focuses on potentially significant effects.

8.3.11 The initial Study Area limit was set at 5 km from the Site on a precautionary basis. However, site work in the early stages of the assessment process confirmed that, although the Proposed Development may be visible more widely, significant effects are very unlikely beyond 2 km from the Site boundary. The visual assessment therefore considers the area covered by the bare ground ZTV, up to 2 km from the Site boundary.

8.3.12 The Study Area for the landscape assessment is informed by the visibility study and covers the full extent of the wider landscape around it which may be influenced in a significant manner by the Proposed Development (as per GLVIA3 paragraph 5.2)[4]. As the Site is located centrally within the extensive LCT 20: *Undulating Agricultural Heartland* this is the only LCT affected whether the limit is set at 5 km or 2 km.

8.3.13 The extent of the Study Area for the visual amenity assessment is shown on **Volume 3, Figure 8.1: Zone of Theoretical Visibility (bare ground) and Viewpoint Locations.** For the Landscape Assessment the extent of the Study Area is shown **on Volume 3, Figure 8.5: Landscape Character.**

Issues Scoped Out

8.3.14 **Table 8-2** sets out the items and issues considered very unlikely to be subject to significant effects from the Proposed Development and therefore not considered further.

Table 8-2 Items Scoped Out

Items Scoped Out	Justification
Landscape Character: National Designations and Wild Land Areas	The nearest national landscape designation is Cairngorms National Park, located approximately 50 km to the southwest.
Landscape Character: Deveron Valley Special Landscape Area (SLA)	At its nearest point, the SLA is located approximately 10 km west of the Proposed Development and outwith the Zone of Theoretical Visibility.
Landscape Character: Local landscape character areas	The intention at scoping stage had been to develop finer-grained local landscape character areas in the 2km area around the Site specifically for this assessment. However, site survey found that the character of the landscape around the Site was relatively uniform and that subdividing it into local character areas would not benefit the assessment
Visual Amenity: Receptors beyond 2km from the Site boundary	Site work in the early stages of the assessment process confirmed experience from the similar, but larger, Netherton Hub project that, although the Proposed Development may be visible more widely, significant effects are very unlikely beyond 2 km from the Site boundary. This was confirmed by the assessment of views from the representative viewpoints, given in **Volume 4, Appendix 8.3. Viewpoint Descriptions**
Visual Amenity: Parkside of Greens, Mains of Greens Bungalow and Mains of Greens Farmhouse	These properties lie within the Site boundary and are being acquired by SSEN. They may be demolished or retained for non-residential use.
Visual Amenity: Derelict Farmsteads	Derelict properties have been excluded as their future use and function is unknown.
Visual Amenity: Aberdeenshire Council Core Paths	There are no core paths within the Visual Amenity Study Area
Visual Amenity: Commercial Receptors	There are no obvious purely commercial receptors in the Study Area. There are several farms which are also residential receptors and are considered as such
Both Visual Amenity and Landscape Character: Night-time assessment	Night-time working is not anticipated and proposed buildings are not expected to be illuminated at night during normal operation. There would be emergency floodlights installed for health and safety purposes, but these would not be permanently lit. The access roads would also not be lit under normal operation.

Viewpoints

8.3.17 The ZTV was used to identify potential viewpoints from a range of distances, directions and elevations to give a representative sample of likely views of the Proposed Development to illustrate this assessment and to illustrate key and important views.

8.3.18 The viewpoints were agreed with the statutory consultees, Aberdeenshire Council. The locations are shown on **Volume 3, Figure 8.1: Zone of Theoretical Visibility and Viewpoint Locations, Figure 8.2: Zone of Theoretical Visibility (with screening) and Viewpoint Locations, Figure 8.3: Cumulative Zone of Theoretical Visibility** and **Volume Figure 8.4: Topography** and are listed in **Table 8-5**. It should be noted that this assessment is not limited to consideration of the effects from the representative viewpoints illustrated.

Consultation Undertaken to Date

8.3.19 **Table 8-3** below summarises the stakeholder consultation responses and sets out how they have been considered in this assessment.

Table 8-3 Summary of Consultation Undertaken

Name and Location	Type of Development	Distance from the Site	Potential in combination effects
Aberdeenshire Council	Pre Application Request: PoAN ENQ/2024/0139. Regarding request for confirmation on the 10 proposed viewpoint locations issued 1 March 2024	1 March 2024: Strategic Development Delivery Team, Planning and Economy, Environment and Infrastructure Services, Aberdeenshire Council *Having reviewed the proposed viewpoints, ZTV and submitted justification, I am satisfied with the proposed locations.* *Please note that this advice is offered without prejudice to the assessment or determination of any future application. I would advise that it is possible that the need for additional viewpoints may arise as a result of the application process (i.e. through consultations or public comments).*	Field photography and assessment of the 10 representative viewpoints completed in April 2024.
Aberdeenshire Council	Email received 19 August 2024 External Landscape Architects, Carol Anderson in response to Scoping Report	*The general approach to assessing landscape and visual effects summarised in paragraph 5.2.11 is acceptable.* *We should request additional viewpoints from the minor road to the south-east of the Site between the properties of Inchgreen and Upperton (approximately GR 835463) and also from the minor road on the southern boundary of the development in the vicinity of the properties of Greenfield and Mains of Greens.* *I note the list of other development proposals set out in paragraph 3.2.3. It is important that the cumulative assessment is thorough and that worse case scenarios in terms of converging OHLs including taller terminal towers and other associated infrastructure are fully assessed. The ZTV in Figure 5.2 of the Scoping Report is assumed to be based on a maximum height of 14.5m for infrastructure at the Site. As this development proposal will inevitably feature much larger structures, potentially up to 50-60m height, it is imperative that ZTVs are modelled to show all development on the Site and not just the components of the sub-station application. Similarly, we should request visualisations which show terminal towers etc of more committed developments (for example the BBNP 400 kV OHL).* *We should also request that information is provided on the forestry clearance proposed in the north-western part of the Site and that potential wind throw risk on remaining trees is thoroughly investigated with any implications with regard to loss of screening assessed.*	The two additional viewpoints located and added into LVIA report. Fieldwork completed in September 2024. Additional ZTV produced to include the BBNP 400 kV OHL terminal towers. Visualisation methodology adjusted to include the BBNP 400 kV OHL towers

8.4 Methodology

Overview

8.4.1 The assessment considers two distinct but closely related areas: landscape character and visual amenity.

8.4.2 Landscape assessment considers the effects of the Proposed Development on landscape character and landscape as a resource.

8.4.3 Visual assessment is concerned with the views that are available to people who may be affected by the Proposed Development, and their perception and responses to changes in these views.

8.4.4 The assessment involves four key stages:

- establishment of the baseline conditions: the landscape character and visual context of the receiving environment and the sensitivity to change of these resources;
- contributions to the iterative process of design and mitigation based on understanding the nature, form and features of the Proposed Development;
- an evaluation of the magnitude of change likely to result from the Proposed Development, both during construction and at completion on visual amenity and the landscape resource; and
- an assessment of the significance of landscape and visual effects considering the sensitivity of resources and the magnitude of change.

8.4.5 For both the landscape and visual assessments, the significance of effect derives from the combination of the magnitude of change and the sensitivity of the landscape or visual receptor (see paras 8.4.17 to 27, below). A full methodology is set out in **Volume 4, Appendix 8.1: LVIA Methodology**.

8.4.6 As stated in **Volume 2, Chapter 5: EIA Process and Methodology** effects found to be moderate or greater are normally considered to be significant in the context of the EIA Regulations, whilst effects less than moderate are considered not significant.

8.4.7 It should be noted that professional judgement is always used in determining both the sensitivity of a receptor and the magnitude of change. There are situations where the conclusions regarding significance in this chapter differ from that suggested by the matrix in **Volume 2, Chapter 5. EIA Process and Methodology .** This is most frequent where there is a low but not negligible magnitude of visual impact on a receptor of high sensitivity, where following the table gives a conclusion of moderate effect but the assessor considers the effect not to be significant. In this circumstance the significance would be found to be 'minor to moderate' or even 'minor', depending on circumstances. This chapter therefore uses a developed version of this matrix, given as **Table 8** in **Volume 4, Appendix 8.1: LVIA Methodology.**

8.4.8 The assessment has been carried out by assuming the worst case of greatest visibility i.e. on a clear, bright winter's day with no screening from deciduous foliage.

8.4.9 The assessment of visual effects has been undertaken from publicly accessible locations. Assumptions have therefore been made) about the main outlook and importance of views from residential properties, based on what can be seen of them from the adjacent public highway.

Baseline Data Collation

8.4.10 Information has been gathered primarily from desk study and site surveys. Relevant publications taken into consideration include:

- NatureScot Scottish Landscape Character Types Map and Descriptions[8] ;

[8] NatureScot, Scottish Landscape Character Types Maps and Descriptions, available at https://www.nature.scot/professional-advice/landscape/landscape-character-assessment/scottish-landscape-character-types-map-and-descriptions [Accessed August 2024]

- NatureScot Landscape Character Assessment: Aberdeenshire - Landscape Evolution and Influences, 2020[9];
- Aberdeenshire County Council, Core Paths Plan Maps[10],
- Aberdeenshire County Council. Supplementary Guidance No 9, Special Landscape Areas, Draft, 2016[11]
- Online mapping including Ordnance Survey Maps. Google Earth Pro and Google Street View.

8.4.11 Site surveys were carried out in November 2022 as part of the site selection process, and in April and September 2024 for this assessment. Weather conditions were generally dry and clear, although weather conditions were changeable throughout the day.

Viewpoints and Visualisations

8.4.12 Twelve viewpoints have been used to illustrate the landscape and visual effects, as shown on the ZTVs (**Volume 3, Figure 8.1 to 8.3).** Visualisations in accordance with Landscape Institute technical guidance[12] have been prepared for all viewpoints. These are presented in **Volume 3** as **Figures 8.8 to 8.19**. For each viewpoint there are six images (labelled Figure 8.X a to f) showing in turn the existing view, a 'photowire' (a wireline visualisation overlain on the photograph to clearly show the location of the Proposed Development), the view at completion of the construction phase and the anticipated view at year 15 once mitigation planting has established.

8.4.13 As well as the Proposed Development, the photowire shows the terminal towers of the BBNP 400 kV OHL (which is the subject of a separate application). The photomontages show the entire BBNP 400 kV OHL, with tower heights and locations indicative based on the tower schedules available at the time of writing. Potential underground cable connections would not be visible and are therefore not illustrated.

8.4.14 The baseline photo (labelled Figure 8.X a) and the first three visualisations (labelled Figure 8.X b, c & d) show a wide angle of view to illustrate the landscape context. The photomontages are also shown as single frame views (labelled Figure 8.X e & f) for visual assessment.

8.4.15 Full details of the photography and visualisation methodology is given in **Volume 4, Appendix 8.1: LVIA Methodology.**

Determining Sensitivity and Magnitude of Change

8.4.16 The sensitivity of landscape and visual receptors is determined by considering both the susceptibility of the receptor to the change proposed and values related to the receptor.

Landscape Sensitivity

8.4.17 Landscape susceptibility considers the ability of the landscape character type in question to accommodate the specific change proposed without undue consequences to its baseline character or how it is perceived.

8.4.18 The value of a landscape may be indicated by its designation, nationally or locally. However, the absence of a designation does not preclude a landscape being considered important. The European Landscape Convention, to which the UK is a signatory, promotes a people-centred approach and the need to take account of all landscapes, not just those that might be considered special. Following this approach, some local authorities do not make local designations. Landscape value may therefore also be indicated by local consensus because of scenic or aesthetic qualities and / or cultural associations, or it may be identified by a professional considering aspects such as landscape and / or scenic quality, rarity and/or representativeness, conservation interests and

9 NatureScot (2020), Landscape Character Assessment: Aberdeenshire – Landscape Evolution and Influences. Available at https://www.nature.scot/doc/landscape-character-assessment-aberdeenshire-landscape-evolution-and-influences [Accessed August 2024]
10 Aberdeenshire Council, Core Paths Plan Maps. Available at https://www.aberdeenshire.gov.uk/paths-and-outdoor-access/core-paths-plan/core-paths-plan-maps/ [Accessed August 2024]
11 Aberdeenshire Council, Supplementary Planning Guidance No 9, Aberdeenshire Special Landscape Areas, 2016.
12 Landscape Institute Technical Guidance Note (LI TGN 06/19) Visual Representation of development proposals. Available at: https://www.landscapeinstitute.org/wp-content/uploads/2019/09/LI_TGN-06-19_Visual_Representation-1.pdf [Accessed September 2024]

recreational value. Local value may be indicated by local cultural or natural heritage records, works of art or levels of use.

8.4.19 Susceptibility and value are combined such 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. As noted in GLVIA3, there can be complex relationships between the value attributed to a landscape and its susceptibility to change, which can be particularly important when considering change in designated landscapes.

8.4.20 A full sensitivity assessment of the affected LCT (LCT 20 Undulating Agricultural Heartland) is given in **Volume 4, Appendix 8.2: Landscape Character Sensitivity Assessment.**

Visual Sensitivity

8.4.21 The susceptibility of a visual receptor to the Proposed Development relates to the type of receptor and their purpose for being there. For example, residents at home or people enjoying outdoor activities where the nature of the view is a significant factor in their enjoyment would normally be highly susceptible to change, whereas people using indoor facilities where the nature of the surroundings is irrelevant to their activity would be of low or negligible susceptibility

8.4.22 Value attributed to visual amenity relates primarily to the level of public recognition of the view; from highly celebrated nationally known views to those of no recognised importance.

8.4.23 As with landscape, susceptibility and value are combined to form a judgement about the visual sensitivity of a given receptor. Whilst a valued view may serve to increase the overall sensitivity of a visual receptor, a low value would not necessarily reduce sensitivity, particularly for residential receptors.

Magnitude of Change

8.4.24 The magnitude of landscape and visual change depends on a combination of factors including:

- size, scale and nature of change in relation to the existing context;
- the geographical extent of the area influenced; and
- its duration or reversibility.

Level of Effect and Significance

8.4.25 Professional judgement is used to combine sensitivity and magnitude to gauge the level of effect and determine whether it is significant or not, with a clear rationale for the overall judgement provided. The level of effect (and thus significance) would vary depending on the circumstances, the type and scale of development proposed, the baseline context and other factors. The significance matrix in **Volume 4, Appendix 8.1: LVIA Methodology, Table 8** is used as a guide but professional judgement is used both in allocating magnitude and sensitivity ratings, and in the conclusions on significance derived from these.

8.4.26 The gradations of magnitude of change and level of effect used in the assessment represent a continuum, which are described on a four-point scale: major; moderate; minor; and negligible. Where appropriate, this assessment uses intermediate descriptors where the assessor considers that the effect falls between the levels.

8.4.27 As set out in GLVIA3 (paras 5.37 & 6.29), a professional decision is made about whether effects should be categorised as positive or negative (here described respectively as beneficial and adverse). It is also possible for effects to be neutral in their consequences – changing the view or the landscape character but neither improving nor worsening the situation. Effects assessed as moderate or greater are significant in terms of the EIA Regulations.

Cumulative effects

8.4.28 The LVIA considers 'in-combination' landscape and visual effects: the additional changes caused by the Proposed Development in combination with other similar or related developments.

8.4.29 "Intra-project" cumulative effects – where the cumulation of different types of environmental impact on specific receptors increases the overall impact on that receptor (for example, a residential receptor subject to both visual and noise effects) are considered in **Volume 2, Chapter 14: Cumulative Effects.**

8.4.30 The underlying approach to the assessment of cumulative effects is the same as for the assessment of effects of the Proposed Development alone.

8.4.31 The cumulative assessment looks at developments within 5 km of the Proposed Development and considers the potential effects on receptors found to be subject of an effect from the Proposed Development of minor or above.

8.5 Baseline Conditions

Landscape

The Site and Surrounding Context

Topography and Hydrology

8.5.1 The land within the Study Area is gently undulating and dissected by rivers and burns. The Site lies on a gradual southeast facing slope falling from the gentle ridge of Waggle Hill (over 175 m AOD) less than 1 km west of the Site to the shallow valley of the Burn of Greens (approximately 100 m AOD) less than 1 km to the east. The Site itself falls from 163 m AOD in the west to 102 m AOD in the east. See **Volume 3, Figure 8.4: Topography**.

8.5.2 More broadly, the area drains south with a network of small burns, many of the smaller ones ditched to form field boundary drains, merging to form the Burn of Asleid and the Little Water, and discharging into the River Ythan upstream of Methlick.

Land cover and Land Use

8.5.3 The Site and surrounding area is rural, predominantly a mixture of intensive arable and improved grazing land with conifer plantations on parts of the higher ground.

8.5.4 There are occasional single or clusters of wind turbines, often associated with farm steads. The existing Rothienorman to New Deer to Peterhead 400kV OHL and the recently constructed New Deer Substation are located approximately 2 km southeast of the Site.

8.5.5 The vegetation pattern is varied. The arable fields are confined to the higher well drained land with the lower land used for grazing. There are large geometric blocks of coniferous woodland, mainly found on elevated land. Deciduous woodland copses and tree groups often relate to settlement, clustered around properties for shelter. There are shelter belts, lines of trees, often beech or conifers along field boundaries and roadsides.

Plate 8-1 Typical pattern of vegetation, view northeast from Oldmill

8.5.6 The Site is used for arable production, grazing by livestock and in the northeast corner, a coniferous plantation. The poorly drained land near to the Burn of Greens is rough grazing while the remaining land in the west with improved drainage is used for arable. The field pattern is geometric with medium sized fields. Field boundaries consist of fences, gappy hedgerows of hawthorn or gorse or ditches or a mixture of all three.

Settlement pattern

8.5.7 There are two small settlements near the Site, the village of Cuminestown, 2.5 km north of the Site and the town of New Deer, 5 km to the east.

8.5.8 There are scattered farmsteads and individual residential properties across the whole of the Study Area, mostly in the order of 500 m to 1 km apart. Farms often have large storage sheds associated with the farmstead, used for storage of grain or housing livestock.

Tourist attractions

8.5.9 The Culsh Monument, 500m north of New Deer (5 km east of the Site) is a local landmark and viewpoint, sited on a local high point at 153 m AOD. The 25 m (80 foot) high monument was built by the local community to commemorate a local landowner.

Transport

8.5.10 The main road within the Study Area is the B9170 from New Deer to Cuminestown, approximately 1 km northeast of the Site at its closest point. There is a dense network of unclassified roads and tracks linking the scattered farms, as can be seen on **Volume 3, Figure 8.5. Landscape Character**. A minor road used by local residents and farm vehicles forms the southern boundary of the Site.

8.5.11 There are a number of cycle routes within the wider area, including a section of National Cycle Network Route 1 but none with the potential to have a view of the Proposed Development within 2 km of the Site boundary.

Vertical elements

8.5.12 The Rothienorman to New Deer to Peterhead 400kV OHL runs generally east-west to the south of the Proposed Development, approximately 1.4 km southeast from the Site boundary (and 2.3 km from the proposed substation itself) at its nearest point.

8.5.13 Other vertical features include local distribution lines, clusters of wind turbines and single wind turbines. These features are relatively common within this local landscape and detract from the rural character.

Landscape Character

NatureScot Landscape Character Type (LCT) 20 Undulating Agricultural Heartland

8.5.14 The Study Area and Site lie within LCT 20 Undulating Agricultural Plain as defined by the *NatureScot 2019 Landscape Character Assessment*[13] and shown on **Volume 3, Figure 8.5 Landscape Character**.

8.5.15 LCT 20 covers an extensive area (over 390 km^2) of northeastern Aberdeenshire, from Turriff in the west to Maud in the east, and from the River Ythan in the south to within a few kilometres of the coast to the north.

Plate 8-2 View from minor lane north of Deer's Hill looking east, illustrating typical characteristic features of LCT 20

8.5.16 The key characteristics of the LCT 20 relevant to the Site include:

- *Gently undulating, rolling landform of low hills and ridges, with broad shallow valleys.*
- *Smoothly rounded terrain.*
- *Large fields.*
- *Occasional beech and thorn hedges, with stone dykes more common in parts.*
- *Generally sparse woodland cover, with broadleaf trees concentrated in shelterbelts along ridges, and around farms. Larger coniferous forests occur in some areas, and estate policies and occasional beech shelterbelts also occur.*
- *A well settled landscape with a number of small settlements including historic planned fermtouns, castles and designed landscapes.*
- *Frequent, regularly dispersed medium-sized farms, with pockets of smaller farms and crofts.*
- *Open, expansive character with views to landmark hills; the Culsh Monument above New Deer is a key landmark feature.*

Visual

8.5.17 The extent of visibility of the Proposed Development, and thus the area from which there may be visual effects, can be seen from the ZTVs, **Volume 3, Figure 8.1. Zone of Theoretical Visibility (bare ground) and Viewpoint Locations and Volume 3, Figure 8.2. Zone of Theoretical Visibility (with screening) and Viewpoint Locations** and the visual receptors are shown on **Volume 3, Figure 8.6. Visual receptors.**

8.5.18 Rising ground to the west, the ridge from Deers Hill to Waggle Hill and north nearly to Cuminestown encloses the Site and limits visibility of the Proposed Development from the west. To the north, east and south by

[13] NatureScot (2019) Landscape Character Assessment. Available at: https://opendata.nature.scot/datasets/snh::landscape-character-assessment/about [Accessed September 2024]

contrast, within 2 km of the Site boundary, the Proposed Development would be widely visible except from some local low areas and from the shallow valley followed by the B9170 north of Allathan.

Residential receptors

8.5.19 As described above, the area is widely settled, with isolated farmsteads and residential properties scattered across the area. For the purposes of assessment these are considered as groups and clusters of properties, mainly based on the naming of places on the Ordnance Survey Landranger map[14]. The degree to which properties are grouped is inversely proportional to their distance from the Site. Nearer the Site, where more potential for significant effects is anticipated, the grouping is done at a fine grain with smaller groups. Further from the Site, where fewer significant effects are anticipated the grouping is done at a coarser grain, with larger groups.

8.5.20 This is therefore not a comprehensive list of all residential properties that may be affected but a thorough sample to ensure the assessment fully considers potential views from the different distances and directions from the Site. There will be individual houses between the named groups, subject to effects similar to the places either side.

8.5.21 The properties groups and clusters assessed are as follows:

Within 1 km of the Site boundary:

- Newton, adjacent north;
- Borderside, adjacent east;
- Greens, adjacent south;
- Parkhill, 500 m south;
- Upper Greenfield, 250 m southwest;
- Upperton / Abbotshaugh, 1 km southeast; and
- Middletack, 500 m southwest.

Between 1 and 2 km from the Site boundary:

- Cairncake, 1.5 km north;
- Brucehill, 2 km east;
- Swanford, 1.5 km south; and
- Sprottyneuk, 1.5 km southwest.

Recreational Receptors

8.5.22 The only specific recreational receptor within 2 km of the site boundary is the Fyvie to Turriff cycle route, which follows the C26S minor road south from Cuminestown, and is outwith the ZTV. On a precautionary basis, the next two closest recreational receptors have been assessed:

- Visitors to Culsh Monument, approximately 5km east; and
- National Cycle Network Route 1, approximately 2.5 km north.

Transport Receptors

8.5.23 The Proposed Development would be intermittently visible to users of the B9170 traveling away from New Deer, until the road drops into the shallow valley of the Little Water near Allathan House. It would also be visible from the network of minor roads across the Study Area.

8.5.24 The roads within 2 km of the Site covered in this assessment are listed below (the distance and direction given is from the site boundary to the nearest point on the road from which there is theoretical visibility):

[14] The group names used are those used on the OS Landranger map: they may not always reflect local naming conventions.

- B1970, 1.5 km east;
- C20S, 1.3 km north;
- C130S, 200 m north;
- C29S, abuts Site to the east;
- C 1S, forms the southern Site boundary;
- C 121S, 100 m south;
- C120B, 1.5 km southeast;
- C 32S, 1.2 km south;
- C121B, 1.5 km south; and
- Unnamed road linking the C121B and the C1S, 200 m west.

Representative Viewpoints

8.5.25 Twelve viewpoints are illustrated to show a representative sample of the likely views of the Proposed Development, from a range of distances and directions and including key and important views. These viewpoints were initially identified as part of the desk study and early fieldwork and were discussed and agreed with the statutory consultees. Some minor changes were made during fieldwork where a better or more representative viewpoint was obtainable or where necessary to ensure a safe location.

8.5.26 These viewpoints range from one on the roadside almost abutting the site boundary to the Culsh Monument, 5 km away. A description of each viewpoint, details of the receptors which have a view similar to that from the viewpoint, and an assessment of the effects anticipated from the viewpoint is given in **Volume 4, Appendix 8.3: Viewpoint Descriptions**. The viewpoints are listed in **Table 8-5,** below, their locations are shown on **Volume 3, Figure 8.1. Zone of Theoretical Visibility (bare ground) and Viewpoint Locations and Volume 3, Figure 8.2. Zone of Theoretical Visibility (with screening) and Viewpoint Locations** and the views and visualisations as **Volume 3, Figures 8.8 to 8.19.**

Table 8-4 Representative Viewpoints

Viewpoint (VP)	Description	Receptor(s) for whom the VP is representative	Distance and Direction from the Proposed Development (approximate)
VP01	View looking south from minor road near Dalgarno's Croft	National Cycle Network, Road users	2.5 km north
VP02	View looking southwest from minor road, near Northburn Farm	Road users and adjacent residential receptors	500 m north
VP03	View looking south from minor road near Hill of Corsegight	National Cycle Network, Road users	3.8 km northeast
VP04	View from minor road looking west-southwest at South Whitebog	Road users	3.2 km east
VP05	By Culsh Monument	Visitors	5 km east
VP06	View looking northwest from the C121B, near Upperton	Road users	1.1 km southeast
VP07	View northwest from the C121S near Mill of Greens	Road users and adjacent residential receptors	800 m southeast
VP08	View northwest from the C1S near Mains of Greens	Road users and adjacent residential receptors	Directly south
VP09	View north from the minor road at Bridge of Swanford	Road users and adjacent residential receptors	1.4 km south

Viewpoint (VP)	Description	Receptor(s) for whom the VP is representative	Distance and Direction from the Proposed Development (approximate)
VP10	View northwest from C121B, east of Deers Hill	Road users	1.7 km southwest
VP11	View northeast from unclassified road near Middletack	Road users and adjacent residential receptors	500 m southwest
VP12	View east from minor road on Northburnhill	Road users	500 m west

Future Baseline

8.5.31 There are proposals by the Scottish Government as part of renewable and low carbon energy policy to promote onshore and offshore opportunities, support the development of the hydrogen sector and carbon capture and storage through the Emerging Energy Technologies Fund and to support renewable sources, all of which could change the character of the landscape.

8.5.32 This part of Aberdeenshire with the proximity to the coast and high wind levels lends itself to potential new renewable energy developments.

8.5.33 Substations with grid connection capacity may attract energy storage developments and as such, applications for battery or other storage developments in the area would not be unexpected.

8.5.34 If the Proposed Development does not occur, there is potential that the land would remain in agricultural use or be developed for a renewable energy project.

8.5.35 The Scottish Government is pursuing initiatives to deal with the twin climate and biodiversity crises. Aberdeenshire Council completed a Regional Land Use Pilot in 2016 to examine nature-based solutions such as woodland expansion, peatland restoration, natural flood management and creating greenspaces. Aberdeenshire Council recently published the Forestry and Woodland Strategy[15], mapping areas of existing woodland and preferred areas for new woodland creation. The western part of the Site is defined as having 'Potential' and the eastern part of the site as 'Preferred', that is with no significant constraints and there may be opportunities for new woodland creation. In the future consideration may be given to further woodland planting within part of the Site, recognised by the Local Planning Authority and in line with the Scottish Government initiatives.

8.5.36 With forthcoming changes in the Scottish Government's agriculture support framework, it is possible that the appearance of the rural landscape would alter with changes in land management, livestock production and nature protection and restoration.

8.6 Potential Effects

Potential Landscape Effects

8.6.1 The Proposed Development may affect the landscape in a number of ways, including:

Construction Period – temporary effects

8.6.2 During the construction period there may be temporary landscape effects from a number of sources including:

- the presence of construction compounds, laydown and working areas, and temporary spoil heaps;

[15] Aberdeenshire Council, LDP23: Forestry Strategy, (online), available at https://spatialdata-abdnshire.opendata.arcgis.com/datasets/03d927b1cf1a44b6a5f047e53a003ea0_0/explore?location=57.258347%2C-2.656694%2C12.00 [Accessed August 2024]

- large machinery moving about, with flashing lights and reversing beepers, and potentially tall temporary structures such as piling rigs and cranes hoisting prefabricated structures into position;
- the active change underway as development progresses and the gradual emergence of the Proposed Development buildings and landform;
- light in a currently dark landscape, from floodlighting to allow a full working day in winter; and
- extensive areas of bare earth from temporary stockpiles and new landforms before they have had a chance to 'green up' from the landscape works.

8.6.3 The construction period assessment considers the temporary effects of the construction activities. The long-term effects of the introduction of the Proposed Development are considered as operational period effects, although it is acknowledged that they occur progressively during the construction period.

Operational Period – permanent effects

8.6.4 The Proposed Development may give rise to permanent effects on the landscape for a number of reasons, including:

- the introduction of a complex of buildings, transmission equipment, access road creating an industrial structure into a rural landscape;
- the loss of landscape features such as farmland, field boundaries, woodland copse;
- diversion of a watercourse;
- the creation of new landforms; and
- diversification of habitat introducing natural vegetation, from wet grassland, wildflower grass meadow, hedgerow, scrub, wet woodland and broadleaf woodland.

Operational Effects

8.6.5 There are likely to be limited or no effects arising from the operation of the Proposed Development, except occasional vehicle lights and occasional site or security lighting at night in a previously dark landscape. Floodlights would be installed but would only be used in the event of a fault, shift overrun or security breach. The access roads would not be lit permanently

Potential Visual Effects

8.6.6 The Proposed Development may affect the visual amenity of receptors in the surrounding area in a number of ways, including:

Construction Period– temporary effects

- The installation of a large construction compound, lay-down areas and the new access road;
- the movement and activity of large construction machinery, usually with flashing hazard lights;
- views of cranes and piling rigs;
- new landforms, particularly noticeable because of changes over a short timescale, and the extent of bare earth visible;
- temporary spoil heaps and potentially borrow pits and disposal areas; and
- floodlighting of areas for evening and morning working during the winter.

Operational Phase - permanent effects

- Introduction of a complex of large buildings and substation infrastructure that may stand out or intrude in the view;
- changes to landform that may stand out in the view; and
- the loss of areas of existing woodland and plantation, and the introduction of new blocks of woodland.

Operational Effects

8.6.7 There are likely to be limited or no effects arising from the operation of the Proposed Development, except occasional vehicle lights and occasional site or security lighting at night in a previously dark landscape.

8.7 Mitigation

Introduction

8.7.1 As discussed in **Volume 2, Chapter 4: Site Selection Process and Alternatives,** a substation site selection study was carried out in 2023. This identified the Site as the optimum location for the Proposed Development, considering various issues including the risk of adverse landscape and visual effects.

Design Strategy

8.7.2 The Proposed Development is located on a gently sloping site open towards the east but contained by rising ground to the west. There are a relatively small number of sensitive visual receptors within two kilometres, but several very close. Achieving a design solution that completely screens the substation is not feasible due to the scale of the Proposed Development and the topographic relationship between the visual receptors and the development.

8.7.3 A design strategy was therefore developed in the early stages of this EIA process, which aims to:

- create new landform in such a way as to help integrate the proposed infrastructure into the local landscape;
- reduce the extent to which the substation would be visible from sensitive receptors, through a combination of careful routeing of underground cable connections, creation of new naturalistic landforms and screen planting;
- introduce landscape features in a way that not only provides screening of the Proposed Development but also complements and enhances the existing landscape character; and
- introduce native habitat types in keeping with local biodiversity targets to encourage wildlife and help combat climate change.

8.7.4 The design strategy aims to position the Proposed Development at as low a level as technically feasible (whilst considering drainage requirements, technical constraints and materials balance). The substation platform is dug into the hillside to the west slightly more than necessary to strictly balance the materials arising, providing a 'surplus' which is used to create naturalistic landforms to the south and east. The cable routes from the south have been grouped into corridors aligned to allow for screen landforms and planting where these are most required.

8.7.5 The following paragraphs set out a general description of the landscape mitigation adopted in the design. This is illustrated in **Volume 3, Figure 8.7 Landscape and Ecological Mitigation Plan.**

Substation Platform

8.7.6 The Substation platform would be located at a level of 130.5 m AOD, slightly below the average level of the site. At the western end of the site the platform would be cut in approximately 16 m below existing ground, whilst at the eastern end it would be built up by an average of 13 m. This is a level that offers an optimal cut and fill balance that will minimise the requirements for the import or export of stone and spoil.

Landform Design

8.7.7 New naturalistic landforms would be created alongside the minor road to the south to provide immediate screening of the Proposed Development from nearest visual receptors where possible, and to reduce the time that screen planting would take to become effective where ground levels are such that immediate screening is not feasible. To the east of the site platform, the new landform would rise several metres above platform level so that platform appears to sit in to the hillside rather than being perched above it.

8.7.8 From the eastern boundary of the Site at approximately 100 m AOD, the land rises gradually to the northwest to slightly over 150 m AOD. The proposed landforms would foreshorten the view but would as far as possible take the shape of naturalistic small rolling hills. They would have steeper gradients on the 'inside' towards the development platforms and slacker slopes where visible to the public. They would however require slightly steeper slopes than is common in the local landscape: gradients in the order of 1 in 6, where locally steeper slopes are generally 1 in 7 to 1 in 9.

Habitat Creation

8.7.9 A variety of habitats are proposed, informed by the findings of **Volume 2, Chapter 9: Ecology, Nature Conservation and Ornithology** and the Biodiversity Net Gain calculations which have been made for the Site. The Site is in a relatively exposed location, and soil conditions are varied across the Site from poorly drained land in the eastern portion, to drier soils in the higher land to the northwest. The proposed landforms and the change in land use away from agriculture offers the potential to introduce a variety of habitats.

8.7.10 Extensive areas of new native-species woodland would, over time, help screen the Proposed Development from view whilst providing a habitat which has locally become rare, as well as connectivity for wildlife with existing and adjacent habitat. A broad swathe will be left open south of Newton, to avoid foreshortening their view, and corridors of varying width will be left open where the diverted watercourses run through new areas of woodland and where access roads are required.

8.7.11 Native tree and shrub species would be used, primarily broadleaved with a small proportion of evergreens to improve screening in winter. The woodland mix would be primarily oak, beech, birch, Scots pine, rowan and hazel, with small quantities of bird cherry, holly, ash and wych elm[16]. In the lower-lying, potentially wetter parts of the site, alder, sallow and aspen would be introduced. Around the perimeter of woodland blocks, a mosaic of scrub and shrubs would be added for additional wildlife interest. This woodland edge mix would include hazel, hawthorn, blackthorn, elder and dog rose.

8.7.12 Areas that cannot be planted because of technical constraints (OHL and cable corridors, site security zone), as well the open areas described above would be seeded with a species-rich grass and wildflower seed mix designed to provide a sward of natural appearance using commonly found local species.

8.7.13 The diverted watercourses, which also serve as landform drains would be designed with a natural stream profile, slightly meandering. The margins and banks of the watercourses, and the banks of the SuDS basins would be seeded with a wet meadow or pond edge seed mix.

8.7.14 The native plant material would be specified to be of local provenance as far as commercially available. All areas of land disturbed by the works that are not planted would be graded and lightly cultivated ready for seeding.

Fencing

8.7.15 A deer fence is required to protect the new planting which, in line with operational requirements, will be installed around the Site perimeter. Palisade security fencing 3 m high is required around the substation platform. However, with the landscape landforms and planting, this should not be noticeable in most views of the Site.

Site Access

8.7.16 The Site would be accessed by a new road from the minor road on the eastern boundary with a secondary access from the minor road to the south. Large bell-mouth entrances would be required because of the size of equipment to be delivered but within these constraints would be made as small as practically feasible. Gates at the Site entrances would be set well back from the road and be deer-proof field gates. The substation security gates would be at the substation platform.

[16] Ash and elm in small quantities because of current disease issues but with an eye to potential long-term presence after the diseases have passed.

Drainage design

8.7.17 Existing watercourses draining the Site would be diverted as part of the works. Within the constraints of land available, the diverted watercoures would be designed with a more naturalistic watercourse profile. With creation of new landforms there would be low lying areas of land which would regenerate as natural marshy grassland.

8.7.18 Eight detention basins would be created on the perimeters of the Site to attenuate surface water flows before the water discharges into nearby watercourses. Open swales would be constructed wherever feasible alongside roads and development platforms and on the perimeter creating an opportunity for enhanced biodiversity in addition to their main function of water attenuation.

Table 8-5 Landscape Mitigation Commitments

Reference	Description
LV1	The site platforms will be set slightly below the mean level of the platform area in order to generate sufficient fill to allow the creation of landforms that help screen the proposed infrastructure in views from surrounding minor roads and nearby residential properties.
LV2	New naturalistic landforms will be created to the east and northeast of the substation platform, and at intervals along the minor road to the south to provide immediate screening from Greenford, assist in screening views from Greenfield, Latchford Croft and Newton, whilst allowing a balance of cut and fill to minimise requirements for materials import or export.
LV3	As far as possible, landforms will be created early in the construction period, and construction activities will be concentrated in the area screened by the new landforms.
LV4	The main site drainage (excluding drainage of the operational site platforms) will be by open watercourses designed with a long profile, cross-section and plan profile mimicking that of a natural burn.
LV5	New landforms will be rounded off both top and bottom to the largest radius practical where visible to the public, and generally shaped to create a naturalistic landform. The landforms will have gentler but irregular slopes to the outward (public facing) side - average 16% (1:6) - mimicking local landforms albeit slightly steeper. Inward facing slopes (sides towards the development platforms) may be steeper and more regular.
LV6	The ends of new landforms will be tapered out at a gradient of not more than 15% to avoid sharp and un-natural transitions between landforms.
LV7	Land over underground cable easements will be graded to no more than 1 in 10 slopes due to technical restrictions on cable alignment.
LV8	Existing trees on site will be retained wherever possible.
LV9	The final shape of the new landforms will be determined on site, by eye, by an experienced landscape architect employed directly by SSEN or their contractor to ensure that the finished form meets the commitments given above, as the degree of subtlety cannot be easily translated into 3D setting-out coordinates.
LV10	If circumstances arise during the construction works that require amendment to the platform levels, any design development shall consider the relationship between landform height and site platform level, so that the screening effect described in this assessment and provided on the application drawings is not reduced.
LV11	All native species planting will be carried out using plant material of local provenance (the closest provenance that is available in commercial quantities) to ensure maximum benefit for local biodiversity.
LV13	A Landscape and Habitat Management Plan will be prepared at detailed design stage and updated on completion of construction to ensure the long-term objectives of the LVIA and BNG mitigation are met.

Mitigation during Construction

8.7.19 A Construction Environment Management Plan (CEMP) will be produced by the appointed Principal Contractor. The following measures would be included in the CEMP to ensure mitigation of potential effects on landscape and visual receptors during construction:

- the construction compounds and temporary laydown areas will be sited as far as practically possible away from sensitive receptors., and the lighting of these and construction areas will be restricted to the minimum necessary for safe working and site security, as set out in detail in the Lighting Management Plan produced by the Contractor[17];
- materials and machinery will be stored tidily during the works. Tall machinery including cranes would not be left in place for longer than required for construction purposes, to minimise its impact in views;
- roads providing access to site compound and works areas will be maintained free of dust and mud; and
- on completion of construction, all remaining construction materials will be removed from the Site.

8.7.20 The construction compounds are proposed to be located to the southeast of the substation platform, in an area which is generally low in the landscape which reduces wider visibility

8.7.21 As far as possible (within the constraints of construction operation) the landscape landforms will be created early in the construction programme.

8.8 Landscape Assessment

8.8.1 The paragraphs below set out the landscape effects of the Proposed Development incorporating the mitigation described above and illustrated on **Volume 3, Figure 8.7 Landscape and Ecological Mitigation Plan**.

8.8.2 The degree to which any development affects the landscape depends in part on the size of the development in relation to the extent of the landscape being considered. In the case of the Proposed Development, it would completely replace the existing agricultural landscape within the Site, and noticeably change the character of the local area.

8.8.3 This assessment considers the effect on the landscape both locally (within approximately a kilometre of the Site) at the scale of the affected unit of NatureScot LCT.

Nature of Change

8.8.4 The Proposed Development lies within the NatureScot LCT 20 Undulating Agricultural Heartland, an open expansive landscape characterised by gently undulating hills and ridges, smoothly rounded terrain with broad shallow valleys and large fields.

8.8.5 The Proposed Development would introduce buildings and equipment of an industrial nature, along with large blocks of new mixed woodland into a rural landscape that is currently open, except where there are blocks of commercial forestry. It would involve reshaping the existing land, creating a large level development platform cut into a gradual southeast facing slope.

LCT 20 Undulating Agricultural Heartland

Landscape Sensitivity

8.8.6 LCT 20 Undulating Agricultural Heartland covers an extensive area (over 390 km^2) at the core of north-eastern Aberdeenshire. The majority of LCT 20 is undesignated except for a small area of the Deveron Valley Special Landscape Area, approximately 10 km west of the Site.

8.8.7 Long views of the surrounding areas are a key feature of the landscape character. There are few developments of an industrial nature, although the existing (recently built) New Deer Substation, lies 2 km southeast of the

[17] Siemens-Energy BAM (Sept 2024) Construction Light Management Plan for Greens 400kV Substation. Document No. GRNS4-LT379-SEBAM-ENV-RPT-OE-0001

Site. Vertical elements occur occasionally, limited to the Rothienorman to New Deer to Peterhead 400kV OHL to the south and occasional single or clusters of wind turbines.

8.8.8 The rural character of the landscape means that this part of the LCT would be susceptible to an industrial development requiring a large flat platform. However, the surrounding topography would provide a setting in which the development is congruous. The vegetation pattern of conifer plantation, tree belts and woodland copse often associated with settlement offers the opportunity to provide screening. The susceptibility to change is considered medium.

8.8.9 There are no statutory designations within the LCT. There are a few recreational and cultural heritage features. Key recreational routes are the Formartine and Buchan Way Great Trail, located in the east of the LCT, NCN Route 1 passing east west approximately 2.5 km north of the Site. The landscape may be considered ordinary and commonplace though reasonably attractive and, as such its value is considered medium.

8.8.10 Overall, considering the value and susceptibility and the local characteristic landscape features, the sensitivity of LCT 20 to the Proposed Development is considered medium.

8.8.11 Further detail is given in **Volume 4, Appendix 8.2: Landscape Character Sensitivity**.

Magnitude of Change

8.8.12 As noted above, the Proposed Development would involve intensive change to the site itself and would have more of an effect on the character of the local landscape than it would on LCT20 considered as a whole. The magnitude of change to the local landscape (considered within approximately a kilometre) is anticipated to be medium whilst at the scale of LCT 20 low to negligible.

Assessment: Construction Period (temporary effects)

8.8.13 During the construction phase the Proposed Development is anticipated to result in a low degree of change to LCT 20 a landscape of medium sensitivity giving rise to a temporary **Minor Adverse (Not Significant)** effect. Locally, the change would be greater, and the temporary landscape effect would be **Moderate Adverse (Significant)**.

Assessment: Operational Period (permanent effects)

8.8.14 During the operation phase the Proposed Development is anticipated to result in a low degree of change to the extensive LCT 20. With a sensitivity of medium and a low to negligible magnitude of change, the landscape effect on LCT 20 would be **Minor Adverse (Not Significant)** to **Negligible**. The duration of these effects would be long-term, and the nature of these effects would be permanent.

8.8.15 Considered more locally, the impact on the landscape immediately on completion would be medium, giving rise to a local **Moderate Adverse (Significant)** landscape effect. Over time, as the mitigation planting matures the impact would reduce, such that by Year 15, the effect is anticipated to be **Minor Adverse (Not Significant)**.

8.9 Visual Amenity Assessment

8.9.1 The Proposed Development is anticipated to be noticeably visible to the 'ordinary[18]' observer to approximately 2 km from the Site to the north, east and south, and up to slightly over half a kilometre to the west.

8.9.2 The following paragraphs describe the overall extent of visibility and should be read in conjunction with the ZTVs **(Volume 3, Figures 8.1** to **8.3)**. The visualisations in Volume 3 illustrate the effect from the representative viewpoints **(Volume 3, Figures 8.8** to **8.19)**.

8.9.3 To the north, the Proposed Development would be visible from the entire area within approximately a kilometre of the site boundary, and beyond that from the top and the western flank of the higher ground above the B9170. There would be no visibility from the B9170 itself or from the shallow valley of the Little Water. Further north, it

[18] A member of the public who is looking at the view whilst going about their ordinary business, whether at home or as a tourist passing by, as opposed to someone specifically looking to identify the Proposed Development or considering a specific visual relationship.

would be more distantly visible from limited areas of higher ground such as around Balthangie. Viewpoints 1, 2 and 3 are views from and across this area.

8.9.4 To the northeast, the ridge of higher ground between the Burn of Greens and the Little Water would contain close views to no more than 300 m from the Site boundary. There would be no view from the valley of the Little Water but more distantly, the Proposed Development would be at least theoretically visible from most of the area out to approximately 4 km. Viewpoint 4 is a view across this area.

8.9.5 To the east and southeast, the Proposed Development would be visible across almost the entire area out to 2km from the site boundary apart from two small low-lying areas. Beyond 2 km, there are large areas of low-lying ground along the broad valley of the Little Water, from which there would be no visibility, interspersed with patches of higher ground with potential for some distant visibility. Viewpoints 6 and 7 show the view from the southeast.

8.9.6 To the south, the Proposed Development would be visible across most of the area to between 2.5 and 3 km from the site boundary apart the low-lying area around Burnside and the Moss of Swanford. Beyond that it would be more distantly visible from small areas of higher ground. Viewpoints 8, 9, 10 and 11 show views from the south

8.9.7 To the west, the existing conifer plantation abutting the site boundary would screen all views of the Proposed Development in the short and medium term. When the plantation is harvested, there would be views from the area within approximately 500 m to the west, with more distant views screened by Waggle Hill. Viewpoint 12 is representative of views from this area.

8.9.8 As noted at paragraph 8.1.4, two terminal towers for the BBNP 400kV OHL will be erected on the north side of the site. These form part of a separate development project. They are therefore not considered in this section but in Section 8.10 Cumulative Effects, below.

Residential Receptors

8.9.9 As noted in the baseline the area is widely settled, with residential receptors scattered across the area as individual farmsteads and isolated houses, and clusters of two to five properties, but no defined settlements within 2 km of the Site boundary.

8.9.10 Because of this broad scattering of settlements, the Proposed Development would be visible to a varying degree to residential receptors across the open agricultural land mainly to the north, east and south of the site. Of these, approximately 35 receptors lie within 1 km of the site boundary, of which half are covered by the 'with screening' ZTV (**Volume 3, Figure 8.2 Zone of Theoretical Visibility (with screening) and Viewpoint Locations**) and approximately 120 between 1 and 2 km, of which one in four are covered by the 'with screening' ZTV. Residential receptors, people enjoying the view from their home, are usually considered to be highly susceptible to visual change and are thus considered in this assessment to be high sensitivity receptors, even where the actual view enjoyed may not be particularly valued.

8.9.11 The active change, movement of construction vehicles, temporary lighting and bare earth of new landforms and temporary stockpiles would be more noticeable than the permanent works due to the level of disturbance. The extent of change in the view would alter from individual properties depending on the aspect of the property in relation to the Site, presence of garden planting and intervening local landform and vegetation.

<u>Newton</u>

8.9.12 An isolated property abutting the northern site boundary, Newton faces south, with open views across gently undulating agricultural land. Greenfield Farm is visible in the middle distance, with the existing Rothienorman to New Deer to Peterhead 400kV OHL on the distant horizon.

8.9.13 There would be a close view of construction activity and the emerging development. This would be a high magnitude of change, a temporary **Major Adverse (Significant)** visual amenity effect.

8.9.14 On completion of the works (year 1) there would be an open view into the Site, with wildflower meadow, detention basins, and diverted watercourse in the foreground with new mitigation woodland planting either side, seen through the perimeter deer fence. Views to the southwest would be contained by the new landforms partially screening the substation. This would be a high magnitude of change, a **Major Adverse (Significant)** visual amenity effect.

8.9.15 By year 15, the maturing mitigation woodland would frame a channelled view into the Site, and the substation infrastructure should be fully screened. This would be a high magnitude of change from the baseline situation. The view would be different from the baseline situation, but the nature of the change is judged to be neither adverse nor beneficial. It is therefore considered a **Major Neutral (Significant)** visual amenity effect.

8.9.16 The farm at Northburn, some 250 m north of Newton would be subject to similar effects but the effect in the long term would remain **Major Adverse (Significant)** as the screen planting would have less of an effect given the more elevated position of the house.

8.9.17 Viewpoint 2 is slightly to the northeast of the farm at Northburn (see **Volume 3 Figures 8.9 a to f**)

Borderside

8.9.18 This group comprises a cluster of residential properties and a farm on the eastern boundary, two immediately adjacent the proposed Site entrance, the others within 300 m of the Site boundary. From these properties views towards the Site are restricted by roadside and garden vegetation in summer but there would be filtered views during the winter months.

8.9.19 Construction activity would be clearly apparent close by due to increase in construction related traffic and the new entrance and layby on the minor lane C29S. The level of magnitude would be medium, giving rise to a temporary **Major Adverse (Significant)** effect during construction.

8.9.20 At completion of the works (year 1) there would be filtered views during the winter months to the west and north towards the Site. New woodland planting and hedgerow reinstatement would be partially visible in the foreground. There would be restricted distant views of the substation in the far distance, partially obscured by landform. The level of magnitude would be medium with a **Major Adverse (Significant)** effect.

8.9.21 By year 15 the maturing mitigation woodland would have grown sufficiently to be visible in the foreground screening views of the substation. Views into the Site would be foreshortened and restricted by the developing vegetation. The level of magnitude would be low with a **Minor Adverse (Not Significant)** effect.

Upperton / Abbotshaugh

8.9.22 A group of isolated residential properties with varying aspects located to the southeast of the Site on either side of the Little Water watercourse which flows north to south. Some of the properties have garden planting with trees which restrict visibility to the north.

8.9.23 Viewpoints 6 and 7 (see **Volume 3 Figures 8.13 & 8.14, a to f**) illustrate the view northwest towards the Site which is visible in the middle to far distance, partially screened by intervening topography, vegetation and occasional buildings. The Rothienorman to New Deer to Peterhead 400kV OHL is visible on the horizon to the southwest.

8.9.24 Construction activity would be visible at a distance, occupying a small portion of the view. This would be a change of low magnitude, a temporary **Minor Adverse (Not Significant)** effect.

8.9.25 At completion of the works (year 1) the substation would be visible due to its colour and manmade appearance but relatively distant, partially screened by landform and intervening vegetation. It would occupy a small portion of the view, visible but not particularly noticeable. The level of magnitude would be low with a **Minor Adverse (Not Significant)** effect.

8.9.26 By year 15 the maturing mitigation woodland would screen most of the substation infrastructure. The substation if visible would be a small element within this open expansive view. The magnitude of change would be very low verging on negligible and thus the effect **Minor Adverse (Not Significant)** to **Negligible**.

Greens

8.9.27 This group comprises a farm and two houses immediately south of the Site, the houses with open expansive views in all directions, the farm partially enclosed with trees between the farmhouse and the Site. Viewpoint 8 is from the minor road close to the farm and one of the houses (see **Volume 3 Figures 8.15 a to f**).

8.9.28 Construction activity would be visible close to, and over a wide portion of the view. This would be a high magnitude of change giving rise to a temporary **Major Adverse (Significant)** effect.

8.9.29 At completion of the works (year 1) the regraded landforms would foreshorten some currently very open views but screening much of the substation, whilst others would have an open view across the new landforms of the Proposed Development, a discordant element occupying a large portion of the view. In all cases this would be a high magnitude of change giving rise to a **Major Adverse (Significant)** effect.

8.9.30 By year 15 the maturing mitigation woodland would screen the views of the substation where the view was previously open and expansive, but at the expense of foreshortening the view. Some views of the substation would remain from the farmhouse, between the woodland blocks where cable corridors restrict planting, filtered by existing vegetation around the farm. This would be a change from the baseline of medium to high magnitude, for the houses neutral in nature but for the farm adverse, giving rise respectively to **Major Neutral (Significant)** and **Major Adverse (Significant)** visual amenity effects**.**

Parkhill

8.9.31 A cluster of residential receptors south of the Site mostly with copses of trees or garden planting restricting visibility to the north towards the Site

8.9.32 Construction activity would be visible over a wide portion of the view where the views are less restricted but filtered, in some cases substantially from other receptors. The magnitude of change perceived would vary from medium to high giving rise to temporary **Moderate Adverse (Significant)** to **Major Adverse (Significant)** effects.

8.9.33 At completion of the works (year 1) the Proposed Development would be a discordant element occupying a noticeable portion of the view, filtered to varying degrees by vegetation around the receptors. The magnitude of change perceived would vary from medium to high giving rise to **Moderate Adverse (Significant)** to **Major Adverse (Significant)** effects.

8.9.34 By year 15 the maturing mitigation woodland would screen much of the substation from view and the external infrastructure would have dulled down, reducing the magnitude of change from the baseline condition to low to medium, depending on the degree to which views are also filtered by vegetation around the receptors. The visual amenity effect would range from **Minor Adverse (Not Significant)** to **Moderate Adverse (Significant).**

Middletack

8.9.35 Scattered individual residential properties and farms southwest of the Site surrounded by gently undulating farmland - fenced, occasionally hedged, arable and pasture fields. Expansive open views to the north, east and south. Views to the Site are partially obscured by intervening topography and vegetation. The extent of view of the Site varies between receptors, depending on aspect, elevation and, for those properties with a north facing aspect, the presence or absence of intervening vegetation. Undeveloped, the Site is barely discernible, backdropped by rising ground beyond. Viewpoint 11 illustrates the view from this area (See **Volume 3, Figures 8.18 a to f**).

8.9.36 At the start of construction works, site activity would be barely discernible but as the substation platform is built up, construction activity and the emerging substation infrastructure would become clearly noticeable. This would be a medium magnitude of change, giving rise to a **Major Adverse (Significant)** effect

8.9.37 On completion (year 1) the substation infrastructure would be clearly visible, a discordant element across a noticeable portion of the view north: a medium magnitude of change, giving rise to a **Major Adverse (Significant)** effect.

8.9.38 By Year 15 the mitigation planting would have grown to screen parts of the view, and the external infrastructure, shiny when new, would have dulled down such that, backdropped against the hills behind the substation whilst visible would not be particularly noticeable. A small but detectable change in view, low magnitude giving a **Minor Adverse (Not Significant)** effect.

Upper Greenfield

8.9.39 An Isolated farmstead southwest of the Site near the top of the ridge of Waggle Hill, with open expansive views to the north, east and south. The Site is visible in the middle distance from the farm, partially screened by the conifer plantation. However, views from the farmhouse and rear garden are restricted by the farm buildings.

8.9.40 The limited visibility towards the Site from the farmhouse means that the introduction of the Proposed Development would be a negligible change to the view from the residential receptor. It would therefore have a **Negligible** effect at all stages.

Cairncake

8.9.41 A cluster of farmsteads on rolling terrain, approximately 1.5 km north of the Site. The view towards the Site varies across the area, in many places limited by intervening topography and blocks of plantation woodland.

8.9.42 During construction there would be limited views of activity on site. The earthworks construction is unlikely to be visible from most of the area, and where seen, it would be relatively distant and backdropped by rising ground beyond and thus not very noticeable. There would be some views of the infrastructure under construction. However, this would be a small element in a broad view. The magnitude of change from the individual receptors would vary, depending on the detail of aspect and position from low to negligible, giving rise to temporary **Minor Adverse (Not Significant)** and **Negligible** effects.

8.9.43 On completion (year 1) the upper parts of the substation infrastructure would be distantly visible to some of the individual receptors, a small and not particularly noticeable change to the view. The magnitude of change from the individual receptors would vary, depending on the detail of aspect and position from low to negligible, giving rise to temporary **Minor Adverse (Not Significant)** and **Negligible** effects.

8.9.44 Over time, the developing mitigation planting would screen parts of the substation infrastructure, and the visible parts of external infrastructure would have dulled down, slightly reducing the level effect such that before Year 15 it would be **Minor Adverse (Not Significant)** to **Negligible**.

Brucehill

8.9.45 Scattered farmsteads on high ground, in the order of 2 km east of the Site, with broad open views in all directions. The Rothienorman to New Deer to Peterhead 400kV OHL visible on the distant horizon to the south and there are small wind turbines in the area.

8.9.46 During construction, the works would be distantly visible, a small area of activity low in the landscape backdropped by Waggle Hill and partly screened by both topography and existing belts of woodland. This would be a change of very low magnitude, giving rise to a **Minor Adverse (Not Significant)** to **Negligible** effect.

8.9.47 On completion (year 1) the upper parts of the substation infrastructure would be distantly visible, a small element low in a broad view. This would be a slight but detectable change, low magnitude, giving rise to a **Minor Adverse (Not Significant)** to **Negligible** effect.

8.9.48 Over time, the effects would reduce as the mitigation planting matures to screen most of the substation infrastructure. By Year 15 the change from the baseline is likely to be barely noticed: a negligible magnitude of change and a **Negligible** effect.

Swanford

8.9.49 A cluster of residential property and farms on low ground in the valley of the Burn of Asleid, to the south of the Site, with open views in all directions, but enclosed in the middle distance by rising ground. Whist shown as having theoretical visibility on the ZTVs (**Volume 3, Figure 8.1. Zone of Theoretical Visibility (bare ground) and Viewpoint Locations and Volume 3, Figure 8.2. Zone of Theoretical Visibility (with screening) and Viewpoint Locations**), from this area it is likely that only the very tops of the substation infrastructure would actually be visible.

8.9.50 Construction activity is likely only to be visible for limited periods of time when the taller parts of the substation are being constructed, and then small elements at distance unlikely to be far above the horizon and as such hardly noticeable. This would be a change of negligible magnitude and a **Negligible** effect.

8.9.51 Once complete, the tallest parts of the substation may be visible, again small elements at distance unlikely to be far above the horizon and as such hardly noticeable. This would remain a **Negligible** effect.

Sprottyneuk

8.9.52 Scattered individual residential properties and farms south and southwest of the Site on the flank of Deers Hill, with expansive open views to the north, east and south over gently undulating farmland. Views to the Site are partially obstructed by intervening topography and filtered by existing trees.

8.9.53 During construction, the works would be distantly visible, a small area of activity low in the landscape backdropped by rising ground and partly screened by both topography and with the view filtered by intervening vegetation, thus not particularly noticeable. This would be a change of low magnitude, giving rise to a temporary **Minor Adverse (Not Significant)** effect.

8.9.54 On completion (year 1) parts of the substation infrastructure would be distantly visible, a small element low in a broad view. It would occupy a noticeable portion of the view but with the view being filtered through intervening vegetation and backdropped by rising ground the substation is not anticipated to be readily noticeable. This would be a change of low magnitude, giving rise to a temporary **Minor Adverse (Not Significant)** effect.

8.9.55 Over time, the mitigation planting would partially screen the substation infrastructure, and the external infrastructure would dull down. By Year 15 the change from the baseline is likely to be barely noticed: a negligible magnitude of change and a **Negligible** effect.

8.9.56 Viewpoint 10 illustrates a typical view from this area (See **Volume 3, Figures 8.17 a to f**)

Recreational Receptors

8.9.57 There are no recreational receptors within 2 km from the site boundary, the limit beyond which significant visual amenity effects are not anticipated. However, as recreational receptors are considered to have a high sensitivity to the Proposed Development, the two closest recreational receptors have been included. These are visitors to Culsh Monument, approximately 5 km east; and users of National Cycle Network (NCN) Route 1, approximately 2.5 km north. Viewpoints 1 and 3 are from the NCN, and Viewpoint 5 is from the Culsh Monument (see **Volume 3 Figures 8.8, 8.10 & 8.12** respectively)**.**

Culsh Monument

8.9.58 A local landmark on an elevated location north of New Deer, visited by locals and visitors to the area. Expansive open views available in all directions, although planting around the monument and trees in the intervening countryside limit views of the Site. Whilst theoretically visible, the Proposed Development is anticipated to be hardly, if at all, noticeable at this distance. It would be a negligible magnitude of change at all stages from construction through to operation, and therefore a **Negligible** visual effect

NCN Route 1

8.9.59 For cyclists on NCN1, the B9170, there are open expansive unrestricted views to the north, west and south across undulating farmland, with occasional single wind turbines and the Rothienorman to New Deer to Peterhead 400kV OHL visible in the far distance to the south.

8.9.60 The Proposed Development would be intermittently visible in the distance to the southwest from approximately 3 km of the route between Hill of Corsegight and Dalgarno's Croft, a small element in a panoramic view over approximately 15 minutes at a relaxed cycling pace. It would be oblique to the view for westbound cyclists and for the main part behind, and thus out of sight for eastbound cyclists. Whilst visible, the Proposed Development is unlikely to be readily noticed either during construction or on completion. This would be a low to very low magnitude of impact over these 3 km, at most a **Minor Adverse (Not Significant)** effect. Considering the visual amenity of the section of NCN between Turriff and Maud as a whole, the effect would be **Negligible.**

Transport Receptors

8.9.61 The Proposed Development would be visible from the B9170 for users traveling away from New Deer, and from parts of the network of minor roads across the Study Area.

8.9.62 Transport receptors are generally considered to be of medium susceptibility to change of the sort engendered by the Proposed Development and thus of medium sensitivity.

B9170

8.9.63 The Proposed Development would be intermittently visible to users of the B9170 traveling away from New Deer, until the road drops into the shallow valley of the Little Water near Allathan House.

8.9.64 During construction, the works would be distantly visible and constitute aa small area of activity set low in the landscape seen against a backdrop and partly screened by both topography and existing belts of woodland passed along the road. This would be a change of low magnitude, giving rise to a **Minor Adverse (Not Significant)** effect over the section of road where it is visible.

8.9.65 On completion (year 1) the substation infrastructure would be distantly visible, again a small element set low in a broad view, although in places directly in the line of sight. Travelling along the road, the Proposed Development would be readily noticeable in places, but in others hardly noticeable or completely out of sight. Overall, this would be a change of low magnitude, giving rise to a **Minor Adverse (Not Significant)** effect over the section of road where it is visible.

8.9.66 Over time, the effects would reduce as the mitigation planting matures to screen most of the substation infrastructure. By Year 15 the change from the baseline is likely to be barely noticed: a negligible magnitude of change and a **Negligible** effect.

Minor roads to the north

8.9.67 The minor roads to the north, shown within the ZTV coverage, are the C20S and the C130S. There are expected to be no views of the Proposed Development from the C20S because of screening by blocks of coniferous woodland. Users of the C130S would have clear views from approximately 1500m of the road in the Northburn area, either side of the Burn of Greens.

8.9.68 During the construction phase there would be a close view of site activity and the emerging development, a high magnitude of change and a temporary **Major Adverse (Significant)** visual amenity effect on this section of the C130S. On completion of the works (year 1) there would be open views of the substation, similarly a high magnitude of change, a **Major Adverse (Significant)** effect. Over time the mitigation woodland would provide partial screening, potentially reducing the level of effect to **Moderate Adverse (Significant).**

Minor roads to the south

8.9.69 The minor roads to the South with substantial sections within the ZTV coverage and within 2 km of the Site are the C1S (which forms the southern boundary to the site), the C121B, the C29S (from which the main site access is taken), the C121S, the C120B and an unclassified lane linking the C121B and the C1S past Middletack.

8.9.70 From the C1S there would be a close view of site activity and the emerging development during the construction phase, a high magnitude of change and a temporary **Major Adverse (Significant)** visual amenity effect. On completion, the landscape landforms would provide a degree of screening of the substation from parts of the road, but for the most part the substation would be clearly visible, a high magnitude of change and a **Major Adverse (Significant)** visual amenity effect. By year 15, the developing mitigation planting would screen the substation from view, except where openings remain for the cable corridors. This would however be a substantial change from the baseline condition, a high magnitude of change and an effect on visual amenity that is mainly **Major Neutral (Significant)** but remains in parts **Major Adverse (Significant)**.

8.9.71 The C121B runs east-west across the Study Area passing approximately 1.2 km south of the Site at its closest point. The Site is intermittently visible from the road between the local high point at Slacks of Cairnbanno (2 km east of the Site) and Deer's Hill (2 km southwest of the Site). Approaching from the east, the Site is oblique to the direction of view, but for most of the length of the road the view to the Site is almost at right angles to the direction of travel, thus away from most users' line of sight.

8.9.72 The works would be slightly visible at the start of construction, but as works progress the higher parts of the landform and buildings would become visible, although not particularly noticeable. This would be a change of low magnitude, a **Minor Adverse (Not Significant)** effect. On completion, the Proposed Development would be visible but away from the direct line of sight and therefore it is not anticipated to be particularly noticeable. This would be a change of low magnitude, giving rose to a **Minor Adverse (Significant)** visual effect. Over time, the mitigation would partially screen the Proposed Development, reducing the apparent change such that by Year 15 the change would appear **Negligible.**

8.9.73 The C29S is the minor road running south from the B1970 from which the main site access to the substation is taken. From New Deer Substation travelling northwards to the crossroads with the C121B there are open views to the north and the Site is barely discernible with undulating topography and intervening vegetation and built form. North of the crossroads, views are obscured tree belts and hedgerows along the road restricting visibility. When the road user is at the proposed entrance there would be close up views of construction activity at the new entrance bell mouth although the view towards the substation is restricted by woodland immediately north of the Site. The view into the Site would be brief and to one side, not readily noticeable. The level of impact is considered low, a **Minor Adverse (Not Significant)** effect. This would remain the situation on completion, a brief view in passing and a low magnitude of change: a **Minor Adverse (Not Significant)** effect. By Year 15 mitigation planting would have established, and the view would be of new woodland rather than the substation. The change would be of low magnitude a **Minor Neutral (Not Significant)** effect**.**

8.9.74 The C121S is a lightly used lane bordered by high roadside hedgerows which restrict visibility, with occasional field entrances from where there are glimpses towards the site. During construction, the Proposed Development would not be readily noticeable with glimpsed views of relatively distant site activity. The level of impact is considered low with a temporary **Minor Adverse (Not Significant)** effect**.** This would remain the situation on completion with glimpsed views and a low magnitude of change: a **Minor Adverse (Not Significant)** effect. By year 15, the mitigation planting is anticipated to screen the Proposed Development from view. The change from the baseline is unlikely to be noticed, a **Negligible** effect on visual amenity.

8.9.75 The C120B is a lightly used lane running north-south approximately 1500 m from the Site at the nearest point from which there would be intermittent oblique views partly restricted by roadside vegetation, farm buildings and the undulating topography. The Proposed Development would be intermittently visible, occupying a small portion of the view and not readily noticeable during construction or on completion. This would be a low

magnitude of change giving rise to a **Minor Adverse (Not Significant)** effect. By Year 15 mitigation planting would screen the substation such that the change from the baseline conditions would be unlikely to be noticed, a negligible magnitude of change, a **Negligible** effect.

8.9.76 The unclassified road linking the C121B and the C1S is an infrequently use lane, the southern half of which is bordered with hedges which restrict views towards the site. From here, the Proposed Development is anticipated to be only intermittently visible, where there are gaps in the hedge, such that at all stages from construction through to completion the change would be hardly noticed, a negligible degree of change and a **Negligible** effect. From Muirtack north, the views towards the Site become open and the change more noticeable, for the most part a medium level of change giving rise to a **Moderate Adverse (Significant)** effect during construction and on completion, falling slightly as the mitigation planting matures such that by year 15 the effect is anticipated to be non-significant.

8.10 Cumulative Effects

8.10.1 The cumulative effects considered here are in-combination effects: the effects of the Proposed Development combined with other developments in the area that may affect the same receptors. Intra-project effects, where a given receptor may be subject to a cumulation of different types of environmental effect (such as noise and visual) from the Proposed Development are considered in **Volume 2, Chapter 14: Cumulative Effects.**

8.10.2 Whilst the LVIA Study Area is set at 2 km and no significant 'stand-alone' effects of the Proposed Development have been found beyond a kilometre from the Site boundary, the cumulative assessment considers developments within 5 km of the Site.

8.10.3 **Table 5-2 Cumulative Developments** in **Volume 2, Chapter 5: EIA Process and Methodology** gives a summary description of the potential cumulative developments identified in the area and **Volume 3, Figure 5.1: Cumulative Developments** shows their locations.

8.10.4 **Table 8-6** below lists the potential cumulative developments scoped out of this assessment.

Table 8-6 Cumulative developments Scoped Out

Application Ref	Location	Description	Reason for scoping out
ENQ/2022/1845	Substation Near New Deer Peterhead	Installation of Underground Cable	Little information available but appears to be of limited impact and sufficiently distant to have low risk of effect
APP/2023/2102	Callies Wood Fyvie AB53 8NL	Formation of a private way within an area of forestry	Small scale development
APP/2022/2571	Lendrum Turriff AB53 8HA	Formation of footpaths	Small scale development
APP/2021/2773	North Of Moss Side Cuminestown Turriff AB53 5YL	Formation of footpath	Small scale development
APP/2022/0034	Near Hillhead Of Teuchar Cuminestown AB53 5YL	Formation of footpath	Small scale development
APP/2022/0076	Everton Of Auchry Cairnhill Turriff AB53 5TG	Installation of foot/cycle path and associated fencing	Small scale development
ENQ/2021/1180	North of New Deer Substation	Erection of a Synchronous Compensator to provide grid stability services and associated works	Pre-application consultation. Scale of works in context of the scale of the existing New Deer Substation such that significant effects considered unlikely.

8.10.5 **Table 8-7** below lists the developments considered to have the potential for cumulative effects in combination with the Proposed Development and sets out the cumulative assessment. Developments marked with an asterisk are Stage 1 developments as described in **Volume 2, Chapter 5: EIA Process and Methodology,** which are SSEN Transmission projects.

8.10.6 In particular, the proposed BBNP 400 kV OHL is considered to have permanent significant effects in combination with the Proposed Development. A development of this scale inevitably has significant visual effects all along its length, but the two terminal towers can be seen to indicate the location of the substation and thus to draw the eye to the Site. **Volume 3, Figure 8.3. Cumulative Zone of Theoretical Visibility** shows the ZTV of the two terminal towers overlain on the ZTV of the Proposed Development. The assessment assumes that the construction period for the OHL would overlap with that for the Proposed Development.

Table 8-7 In-combination effects of the Proposed Development and Cumulative Developments

Name and Location	Type of Development	Distance from the Site	Potential in combination effects	Proposed Mitigation	Potential in-combination cumulative effect
Caledonia Offshore Wind Farm connection. From a landfall between Portsoy and Banff to the Site	HVAC underground cable	Approx 18 km north at the furthest point, the cable will connect into the Proposed Development	Construction Phase **Landscape Character:** construction works (access roads and installing the underground cables) are anticipated to have a temporary adverse effect locally on LCT 20 along the cable route. This would extend the area of construction activity close to the Proposed Development, giving rise to a temporary local **Minor Adverse (Not Significant)** cumulative landscape effect. **Visual Amenity:** receptors within approximately 500 m of the cable route are anticipated to experience adverse visual effects from the cable construction works. It is anticipated that a small number of receptors close to both the Proposed Development and the cable route would experience a temporary **Major Adverse (Significant)** cumulative effect, whilst those further from one or the other would experience lesser effects. Operational phase As an underground cable, once site restoration is complete and vegetation becomes established, the effects both on landscape character and visual amenity are anticipated to be **Negligible** or non-existent except very locally to the cable alignment because of gaps created in hedges or tree belts for the cable wayleave.	None (there is nothing that can be done on the Site to reduce any cumulative effects more than is achieved by the mitigation built into the Proposed Development).	Construction Phase Landscape Character: local temporary **Minor Adverse (Not Significant)** Visual Amenity: **Major Adverse (Significant)** very locally to **Minor Adverse (Not Significant)** Operational Phase Landscape Character and Visual Amenity: **Negligible** or none.

Name and Location	Type of Development	Distance from the Site	Potential in combination effects	Proposed Mitigation	Potential in-combination cumulative effect
Green Volt Offshore Windfarm Connection From a landfall north of Peterhead to south of New Deer	Landfall, underground cable and new substation	Approx 30km east at the furthest point, cable to a new substation south of the existing New Deer substation 2.4 km south	Construction Phase **Landscape Character:** construction works are anticipated to have a temporary adverse effect locally on LCT 20 along the cable route and south of New Deer substation potentially giving rise to a temporary local **Minor Adverse (Not Significant)** cumulative landscape effect. **Visual Amenity:** located south of the existing New Deer substation the change from receptors affected by the Proposed Development and thus the cumulative effect is anticipated to be **Negligible.** Operational phase Landscape Character and Visual Amenity: due to distance, topography and intervening development and vegetation, the change from receptors affected by the Proposed Development and thus the cumulative effect is anticipated to be **Negligible.**	None	Construction Phase Landscape Character: local temporary **Minor Adverse (Not Significant)** Visual Amenity: **Negligible** Operational Phase Landscape Character and Visual Amenity: **Negligible**
Smiddybank BESS, approximately 450m west of New Deer Substation	Battery Storage System on a 8.5 ha site. Structures approximately 3.5 m high, access track, cable connection to New Deer substation	2.4 km southeast	Construction Phase and Operation Landscape Character and Visual Amenity Given the low height of the development and thus the restricted area of influence anticipated, distance, intervening topography and vegetation together mean significant cumulative effects in combination with Greens Substation are unlikely to occur and the cumulative effect is **Negligible**.	None	Construction and Operational phases Landscape Character and Visual Amenity: **Negligible**

Name and Location	Type of Development	Distance from the Site	Potential in combination effects	Proposed Mitigation	Potential in-combination cumulative effect
Monquhitter BESS, West Cairncrake, by Cuminestown, Aberdeenshire	480 MW Battery Storage System on a 37 ha site. Structures approximately 3.5 m high, access track, cable connection to New Deer substation	1.5 km north	Construction Phase **Landscape Character:** this site is in the Burn of Greens valley and would influence part of the same local landscape as the Proposed Development. Construction works are anticipated to have a temporary adverse effect locally on LCT 20, extending the area affect by active development and giving rise to a temporary local **Minor Adverse (Not Significant)** cumulative landscape effect. Very locally the effect would be **Moderate Adverse (Significant).** Visual Amenity: A small number of residential receptors in the Burn of Greens valley north of the Proposed Development would have simultaneous views of both developments. The magnitude of change perceived would vary according to the orientation and outlook of the receptor but is anticipated to be between medium and high, giving temporary **Moderate Adverse (Significant)** and **Major Adverse (Significant)** visual effects. Operational Phase Landscape Character: Combined, the Battery Storage Facility with the Greens Substation would affect a slightly larger part of LCT20 but still small – low to negligible in relation to the LCT as a whole, a **Minor Adverse (Not Significant) to Negligible effect**. Very locally the effect would be **Moderate Adverse (Significant)**, falling over time as mitigation matures Visual Amenity: A small number of sensitive receptors would be subject to a change of medium to high magnitude, giving rise to **Moderate Adverse (Significant)** and **Major Adverse (Significant)** visual effects, also falling over time as mitigation matures.	None	Construction Phase Landscape Character: very locally **Moderate Adverse (Significant)** but **Minor Adverse (Not Significant)** on LCT20 Visual Amenity: temporary **Moderate Adverse (Significant)** and **Major Adverse (Significant)** Operational Phase Landscape Character: very locally **Moderate Adverse (Significant)** but **Minor Adverse (Not Significant)** on LCT20, both falling over time Visual Amenity **Moderate Adverse (Significant)** and **Major Adverse (Significant)**, potentially falling to **Moderate Adverse (Significant)** and **Minor Adverse (Not Significant)** over time.

Name and Location	Type of Development	Distance from the Site	Potential in combination effects	Proposed Mitigation	Potential in-combination cumulative effect
BBNP 400kV OHL* Runs east-west, passing south of Turriff and north of New Deer.	400kV OHL on steel lattice towers in the order of 59 m tall.	0 km	<u>Construction Phase</u> Landscape Character: construction works for the OHL would extend the area affected east and west, north of the Site, and the construction works for the cable connection would extend it to the south. The level of activity, which would be less intensive than substation construction, would cause a slight increase in magnitude of effect and a temporary **Minor Adverse (Not Significant)** effect. Visual Amenity: a small number of receptors north and south of the Proposed Development would see two developments at the same time, anticipated to be a medium degree of change, a temporary **Moderate Adverse (Significant)** visual effect. <u>Operational Phase</u> Landscape Character: The OHL would increase the area of LCT20 affected by transmission development with locally the effect being more intense. However, this would still be small in relation to the LCT as a whole, a **Minor Adverse (Not Significant)** effect. Very locally the effect would be **Moderate Adverse (Significant)**. The underground cable corridor is anticipated to be fully restored, causing negligible long-term effect. Visual Amenity: The terminal towers for the OHL are anticipated to draw the eye to the location of the substation, making the Proposed Development more noticeable. This is anticipated to increase the effect on receptors within approximately a kilometre of the Proposed Development, variously experiencing a change of medium to high magnitude, giving rise to **Moderate Adverse (Significant)** and **Major Adverse (Significant)** visual effects. The underground cable corridor is anticipated to cause no long-term effect.	None	<u>Construction Phase</u> Landscape Character: LCT 20 –**Minor Adverse (Not Significant).** Visual Amenity: **Moderate Adverse (Significant)** <u>Operation</u> Landscape Character LCT 20 – **Moderate Adverse (Significant)** to **Minor Adverse (Not Significant).** Visual Amenity: **Major Adverse (Significant)** and **Moderate Adverse (Significant).**
Greens Underground Cable Connection*	An SSEN Transmission underground cable connection from the Proposed Development to the existing New Deer Substation. This will be a 400 kV cable, 3 km in length, with an 80 m wide working corridor.	0 km			

8.11 Summary of Significant Effects

8.11.1 Landscape character and visual amenity have been important considerations through the iterative design process, from site selection through to detailed design. The final design incorporates both landscape landforms, designed to mitigate some effects immediately, and screen planting which will provide further mitigation over time as it develops and matures.

Landscape Character

8.11.2 The Proposed Development would change the shape of the land and introduce larger scale infrastructure than currently exists into a predominantly rural landscape. It would have a significant adverse effect on the landscape very locally both during construction and on completion but a non-significant effect on the landscape more widely. The effect on the local landscape would reduce over time as the mitigation planting becomes established.

Visual Amenity

8.11.3 The degree of significance at individual receptors varies according to their orientation in relation to the Site, local topography, and the presence or absence of screening elements such as buildings, walls, trees and shrubs between the receptor and the Site.

8.11.4 During construction and on commencement of operation there would be significant adverse visual effects on approximately a dozen[19] residential properties within 1 km of the Site. There would also be significant adverse visual effects on users of three minor roads close to the Site.

8.11.5 The effect on visual amenity would reduce over time as the mitigation planting develops. By Year 15, the number of residential receptors significantly affected would have reduced although significant effects would remain for seven residential properties within approximately 500 m of the Site boundary. Of these, two would be neutral in nature: substantially changed but, once the mitigation is established, different not necessarily better or worse. Significant effects would also remain for users of the minor road along the southern edge of the site.

[19] The assessment covers groups of properties. In some groups there is a range of level of effect, and working from publicly accessible locations it is not possible to see every property nor to distinguish how some are oriented to determine the level of impact. The assessment assumes a worst-case.