



# **Lorg Wind Farm Grid Connection**

## **Environmental Impact Assessment Report**

### **Chapter 7: Landscape and Visual**

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## 7 LANDSCAPE AND VISUAL

### 7.1 Introduction

- 7.1.1 Landscape and visual assessments are separate, although linked processes, describing closely related but distinct sets of effects.
- 7.1.2 Landscape effects are direct physical changes to the landscape caused by the development, or indirect changes to landscape character and how the landscape is perceived following the development. Landscape impact assessment considers these effects both in terms of the individual components of the landscape and on the structure, coherence and character of the landscape as a whole.
- 7.1.3 Visual effects are changes in the composition and character of views available in the area affected by the Proposed Development. Visual impact assessment considers the response of the people who experience these effects, who may be living or working in the area, enjoying recreational activities, or simply passing through. The assessment considers the overall consequence of the effects on the visual amenity - the pleasantness of the view or outlook – that the people affected enjoy.
- 7.1.4 This Chapter (and its associated figures and appendices) is intended to be read as part of the Environmental Impact Assessment Report (EIAR), in particular with reference to **Chapter 2: Route Selection and Alternatives, Chapter 3: Proposed Development, Chapter 4: EIA Process and Methodology, Chapter 6: Forestry, Chapter 8: Biodiversity and Ornithology, Chapter 9: Cultural Heritage and Archaeology, and Chapter 11: Cumulative Assessment**.

### 7.2 Project Overview

- 7.2.1 The Proposed Development comprises the construction and operation of a new 17.5 km 132 kV wood pole (Trident) Overhead Line (OHL) between the proposed Lorg Wind Farm (currently in planning) and the proposed Holm Hill substation (which is being consented separately by The Applicant and will therefore not be assessed as part of the Chapter).

### 7.3 Limitations and Assumptions

- 7.3.1 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.
- 7.3.2 The Zone of Theoretical Visibility (ZTV) is based on 'bare ground' and does not take into account the screening effects of built form, forestry, vegetation, distance, and visibility (e.g. weather conditions). All of which can prevent or reduce visibility.
- 7.3.3 The assessment of visual effect on residential receptors has been undertaken from publicly accessible locations only. Assumptions have therefore been made on the main outlooks and important views from these properties.

### 7.4 Relevant Legislation, Planning Policy and Guidance

#### National Planning Framework 4 (NPF 4) 2024

- 7.4.1 The Scottish Government's Local Government and Housing Directorate issued the fourth iteration of the National Planning Framework in February 2023, since updated in October 2024<sup>1</sup>, which sets out the spatial principles, regional priorities, national developments and national planning policy for Scotland.

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<sup>1</sup> The Scottish Government, (2024). National Planning Framework 4. [Online] Available at: <https://www.gov.scot/publications/national-planning-framework-4/> [Accessed: April 2025].

7.4.2 Policies contained under the Sustainable Places heading note the requirement to tackle issues resulting from the current climate change crisis, addressing the need for climate adaptive measures. Under the policy heading Energy, the NPF 4 notes the intent to 'encourage, promote and facilitate all forms of renewable energy development onshore and offshore' which is further elaborated upon under Policy 11. It is noted that where likely significant landscape and visual impacts upon local, regional, national or international significant natural assets as a result of the proposed developments, these are to be assessed against Policy 4 of the NPF 4, which addresses Natural Places and the protection of the environment and outlines the requirements for impact assessments where significant impacts may be experienced.

7.4.3 Specific to landscape and visual effects, Policy 11 (e) states that "*In addition, project design and mitigation will demonstrate how the following impacts are addressed:*

*ii. significant landscape and visual impacts, recognising that such impacts are to be expected for some forms of renewable energy. Where impacts are localised and/ or appropriate design mitigation has been applied, they will generally be considered to be acceptable.*"

### **Local Planning Policy**

7.4.4 The Dumfries and Galloway Council Local Development Plan (LDP2<sup>2</sup>) was adopted in October 2019 and supersedes the previous LDP published in September 2014. There are a number of policies within the LDP2 which apply to this development, which are summarised as follows:

- OP1: Development Considerations;
- HE6: Gardens and Designed Landscapes;
- NE2: Regional Scenic Areas (RSAs);
- NE7: Forestry and Woodland;
- NE8: Trees and Development;
- CF4: Access Routes; and
- IN1: Renewable Energy.

7.4.5 Policies that are considered to be of particular relevance to the Proposed Development have been set out below in full for ease of reference.

7.4.6 Policy NE2 RSAs states:

*"The siting and design of development within an RSAs should respect the special qualities of the area. Development within, or which affects RSAs, may be supported where the Council is satisfied that:*

- *the factors taken into account in designating the area would not be significantly adversely affected; or*
- *there is a specific need for the development at that location."*

7.4.7 Policy NE7 Forestry and Woodland states:

*"The Council will support the creation and protection of sensitively designed and managed forests and woodlands.*

*Proposals should seek to ensure that ancient and semi-natural woodlands and other woodlands with high nature conservation value are protected and enhanced.*

*In determining its response to individual forestry felling, planting and replanting consultations where Forestry Commission Scotland are the determining authority, the Council will:*

- *take into account environmental and other interests identified in the Forestry and Woodland Strategy including biodiversity, water (including flood risk management), soil and air, landscape setting, historic environment and land restoration;*

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<sup>2</sup> Dumfries and Galloway Council. (2014). *Dumfries and Galloway Forestry and Woodland Strategy: Local Development Plan*. Available online at: [DGFWSCOTLAND.GOV.UK/WEB.PDF](http://www.dgfwscotland.gov.uk/WEB.pdf) [Accessed: August, 2025]

- consider the scheme's location as set out in the Forestry and Woodland Strategy;
- seek to ensure an appropriate balance between both afforested and un-afforested areas in the locality;
- encourage planting of a type, scale, design, age, composition and species mix that is appropriate to the locality;
- actively encourage proposals to have a positive effect on nature conservation and/or natural and historic environment interest;
- encourage proposals to take account of possible recreational use in the design of any planting schemes and indicate how such recreational uses have been investigated; and
- ensure that proposals do not have an adverse impact on the road network.”

7.4.8 Policy NE8 Trees and Development states:

*“In assessing development proposals, the Council will support proposals that:*

- promote additional tree planting;
- protect and enhance ancient woodland sites;
- maintain trees, woodlands (in particular ancient and semi-natural woodlands), and hedgerows (hereafter referred to as the ‘woodland resource’) and require developers to incorporate, wherever feasible, the existing woodland resource into their schemes;
- encourage planting of a type, scale, design, composition and species mix that is appropriate to its locality and appropriately incorporates the woodland resource into the overall design of the scheme; and
- show how existing trees will be appropriately protected during the construction period.

*In submitting development proposals, details should be provided of the arrangements to be made for the long-term maintenance of both the existing woodland resource and any proposed new planting, including providing adequate room for further growth.*

*If it is demonstrated to the satisfaction of the Council that it is not possible to retain the woodland resource then an appropriate replacement planting scheme will be required to be agreed by the Council. Any such replacement planting scheme should normally be located within the site.*

*The processes and recommendations contained in BS 5837:2012, and any subsequent revised or amended document, should be taken into account in designing and implementing development proposals.*

*Where the works to a protected tree or trees forms part of a development proposal, the applicant should also demonstrate that:*

- the benefits of the development, including any replacement planting, will outweigh the loss of or potential harm caused by the works to the tree or trees; and
- the development has been designed and located in order to minimise potential adverse impacts on the protected tree or trees.

*Supplementary guidance provides further advice and guidance in respect of survey work, designing around trees, new planting, protection during construction, maintenance and removing existing trees.”*

7.4.9 In addition to the LDP2, a number of additional supplementary guidance documents have been identified as likely to be of relevance to the Proposed Development. These guidance documents are listed below:

- Trees and Development - Supplementary Guidance (February 2020).

7.4.10 The Dumfries and Galloway Forestry and Woodland Strategy 2014<sup>2</sup>, was submitted to support the previous LDP 2014. We understand the Council is in the process of reviewing the Forestry & Woodland Strategy, but at this stage, no details are available of what that review will produce.

## 7.5 Consultation

7.5.1 Extensive consultation has been undertaken as part of the consideration of route options. This included a meeting with SNH (Scottish Natural Heritage), now known as NatureScot, in March 2017 and public consultation in April 2017. Following modifications mainly arising from landowner considerations, further consultation was undertaken in late 2017 and early 2018.

7.5.2 Specific responses relevant to the LVIA (Landscape and Visual Impact Assessment) included concern regarding visual impacts from the Knockengorroch Festival site and concern over likely significant visual impact from the rear and side of one residential property. The former was addressed as part of the development of route options (the alignment was amended to reduce likely significant environmental effects) whilst the latter will be considered in detail as part of the LVIA.

7.5.3 A complete record of consultation responses to date has been included within **Appendix 4.1: Scoping comments and responses**. Those included within **Table 7.1** below relate specifically to the landscape character and visual amenity of identified receptors and are therefore of relevance to this assessment.

**Table 7.1: Consultation Responses**

Consultee	Date	Response	Action
East Ayrshire Council	Scoping Response Received – 22 March 2019  Additional scoping exercise 2022 – Response Received 17 May 2022	<p>In respect of the information submitted, the key area of interest for East Ayrshire Council is the proposed approach to demonstrating the Landscape and Visual Impacts of the proposal. It is noted by the Council that in paragraph 7.2.10 of the report it is stated that <i>“research on the perceptibility of wood pole overhead lines has shown that they may be visible from up to 6 km”</i> and in paragraph 7.2.11 the scoping report states, <i>“the ZTV of the Proposed Development, cut off at 3 km from the line”</i>. The Council is concerned that the areas of Loch Doon (designated as a Site of Special Scientific Interest (SSSI)), which is around 6 km from the Proposed Development may be impacted by the Proposed Development. Therefore, the Council suggests that consideration be given to extending the ZTV to 6 km. This would ensure a full assessment of the visual impacts of the Proposed Development on East Ayrshire.</p> <p>2022 Response - Having reviewed the changes described in the letter, I am content that there is no need for the Council to comment at this time. Please continue to treat the response submitted in February</p>	<p>Following the initial consultation, a ZTV has been run to demonstrate the likely visibility for up to 6 km from the Proposed Development. The ZTV has identified that no visual impacts are likely to be experienced from Loch Doon. The ZTV is based on DTM (digital terrain model) data, demonstrating potential visibility based on bare earth data. Intervening vegetation and built form would therefore enhance the degree of containment afforded to the SSSI at Loch Doon, further reducing potential visibility of new features. With regard to landscape effects, the Proposed Development lies over 6 km from the boundary of the SSSI, and as such, no landscape effects are likely to be experienced upon this feature. The SSSI has therefore been scoped out of further assessment.</p> <p>Following the 2022 response above comments remain valid. Response noted.</p>

Consultee	Date	Response	Action
		2019 as East Ayrshire Council's position on the EIA scope.	
NatureScot	Consulted in 2017 at Routeing Stage – response received 29 March 2017 & 10 July 2017 Consulted for Scoping – response received 21 March 2019 Consulted for additional scoping exercise 2022	2017 response - Pre-consultation Response: No issues with the preferred route. Survey methodologies discussed and collision risk will be a consideration. (10 July 2017) unable to comment on LVIA. 2019 response - We are satisfied with the proposed approach for baseline collection, predication and significance. Viewpoints appear appropriate and the methodology employs a range of relevant guidance material and publications. 2022 – No response received.	2017 – No LVIA comments received. 2019 - Proposed approach followed. No further action required.
Mountaineering Scotland	Consulted in 2017 at Routeing Stage Consulted for Scoping – response received 19 March 2019 Consulted for additional scoping exercise 2022	2017 Routeing Stage – No response received. Our interest lies with visibility for hillwalkers on and from their way to Cairnsmore of Carsphairn. In the LVIA, the consultant identifies Viewpoints 2 and 4 as important for walker as visual receptors, along with Viewpoint 3 to give a wider landscape view. We agree with these viewpoints. We welcome the statement to maintain access along the paths to Cairnsmore of Carsphairn during construction work. The EIA states, in regard to Cairnsmore of Carsphairn, that " <i>the overhead line is unlikely to be visible from the summit itself</i> ". We request that an additional viewpoint from the summit of the Corbett be included if a significant impact is recorded from any of Viewpoints 2, 3 or 4. 2022 – No response received.	Following initial consultation, minor changes to the route alignment and a Site survey undertaken in September 2023, viewpoint locations were reviewed. Additional viewpoints were added, located on Core Path CARS/487/1 Cairnsmore of Carsphairn by the Green Well, replacing views from summits (former viewpoints 3 and 4, which do not lie along the route of the identified Core Path). Viewpoint amendments were made following the survey, which identified limited accessibility to summits with additional viewpoints added along the Core Path route from both elevated and lower lying positions. <b>Chapter 7: Landscape and Visual</b> considers receptors elevated views from summits within the landscape; however, due to the expansive nature of the landscape and the alignment of the Proposed Development within the lower valley, it is not anticipated that significant effects would be experienced.
Visit Scotland	Consulted in 2017 at Routeing Stage Consulted for Scoping –	2017 Routeing Stage – No response received. 2019 response - Our response focuses on the crucial importance of tourism to Scotland's local and	<b>Chapter 7: Landscape and Visual (and associated appendices and figures)</b> have considered landscape and visual effects across the study area inclusive of visual receptors from identified tourist routes, recreational

Consultee	Date	Response	Action
	<p>response received 14 March 2019</p> <p>Consulted for additional scoping exercise 2022</p>	<p>national economy, and of the natural landscape for visitors.</p> <p><u>Importance of Scenery to Tourism</u></p> <p>Scenery and the natural environment have become the two most important factors for visitors in recent years when choosing a holiday location.</p> <p>The importance of this element to tourism in Scotland cannot be underestimated. The character and visual amenity value of Scotland's landscapes is a key driver of our tourism product: a large majority of visitors to Scotland come because of the landscape, scenery and the wider environment, which supports important visitor activities such as walking, cycling, wildlife watching and visiting historic sites.</p> <p>The VisitScotland Visitor Experience Survey (2015/16) confirms the basis of this argument with its ranking of the key factors influencing visitors when choosing Scotland as a holiday location. In this study, over half of visitors rated scenery and the natural environment as the main reason for visiting Scotland. Full details of the Visitor Experience Survey can be found on the organisation's corporate website, here:</p> <p><a href="http://www.visitscotland.org/pdf/Revised%20Oct%202012%20%20Insights%20Wind%20Farm%20Topic%20Paper.pdf">http://www.visitscotland.org/pdf/Revised%20Oct%202012%20%20Insights%20Wind%20Farm%20Topic%20Paper.pdf</a></p> <p><u>Taking Tourism into Consideration</u></p> <p>We would suggest that full consideration is also given to the Scottish Government's 2008 research on the impact of wind farms on tourism. In its report, you can find recommendations for planning authorities which could help to minimise any negative effects of wind farms on the tourism industry.</p>	<p>routes and holiday lets/B&amp;Bs identified within the local area. Effects upon landscape character, inclusive of both regional scenic areas and sensitive landscape areas have also been assessed. A complete assessment of the landscape and visual effects upon identified tourism features and recreational receptors is provided within <b>Chapter 7: Landscape and Visual</b>.</p>

Consultee	Date	Response	Action
		<p>The report also highlights a request, as part of the planning process, to provide a tourism impact statement as part of the Environmental Impact Analysis. Planning authorities should also consider the following factors to ensure that any adverse local impacts on tourism are minimised:</p> <ul style="list-style-type: none"> <li>• The number of tourists travelling past en route elsewhere</li> <li>• The views from accommodation in the area</li> <li>• The relative scale of tourism impact i.e. local and national</li> <li>• The potential positives associated with the development</li> <li>• The views of tourist organisations, i.e. local tourist businesses or VisitScotland.</li> </ul> <p><u>Conclusion</u></p> <p>Given the aforementioned importance of Scottish tourism to the economy, and of Scotland's landscape in attracting visitors to Scotland, VisitScotland would strongly recommend any potential detrimental impact of the proposed development on tourism - whether visually, environmentally and economically - be identified and considered in full. This includes when taking decisions over turbine height and number.</p> <p>VisitScotland strongly agrees with the advice of the Scottish Government –the importance of tourism impact statements should not be diminished, and that, for each site considered, an independent tourism impact assessment should be carried out. This assessment should be geographically sensitive and should consider the potential impact on any tourism offerings in the vicinity.</p> <p>VisitScotland would also urge consideration of the specific</p>	

Consultee	Date	Response	Action
		<p>concerns raised above relating to the impact any perceived proliferation of developments may have on the local tourism industry, and therefore the local economy.</p> <p>2022 – No response received.</p>	

## 7.6 Assessment Methodology and Significance Criteria

### Scope of the Assessment

7.6.1 The scope of the assessment has been established throughout both the routeing and alignment stages through which the design has progressed. Further information with regard to the assessment methodology and study area is outlined within the report below.

### The Study Area

7.6.2 Research on the perceptibility of wood pole overhead lines<sup>3</sup> has shown that they may be visible from up to 6 km and are likely to be noticeably visible from up to about 1.5 km. For the purpose of this assessment, ZTV mapping was run at both 6 km and 2 km from the proposed route alignment to identify potential visibility of the scheme. ZTVs were prepared using Digital Terrain Modelling (DTM) data, which represents a bare earth condition and does not account for intervening built form and vegetation. In line with the ZTV and following the initial Site survey, it was confirmed that the Proposed Development was only considered likely to appear as a notable feature within views from approximately 1.5 km from the proposed scheme. The Study Area was therefore revised to 2 km to align with the likely visibility of the scheme to present a worst-case scenario.

### Method of Baseline Data Collation

7.6.3 Baseline information has been gathered through desk study research and Site survey.

7.6.4 Along with planning policy documents and evidence-based studies and reports, relevant publications that have been taken into consideration include:

- Guidelines for Landscape Character Assessment<sup>4,5</sup>;
- Landscape Sensitivity Assessment Guidance<sup>6</sup> (Methodology);
- Dumfries and Galloway Landscape Character Assessment<sup>7</sup>; and
- Online mapping including Ordnance Survey maps, GIS data, Google Earth Pro and Google Street View.

<sup>3</sup> D Horn, I McAulay and M Turnbull (May 2010) *High Voltage Wood Pole Transmission and Distribution Main Interconnector Lines in Rural Landscapes: Perceptibility*

<sup>4</sup> NatureScot (2019). *Landscape Character Assessment in Scotland*. Available at: [www.nature.scot/professional-advice/landscape/landscape-character-assessment/landscape-character-assessment-scotland](https://www.nature.scot/professional-advice/landscape/landscape-character-assessment/landscape-character-assessment-scotland) [Accessed: August 2025]

<sup>5</sup> The Countryside Agency & Scottish Natural Heritage (2002). *Landscape Character Assessment - Guidance for England and Scotland*

<sup>6</sup> NatureScot (2024). *Landscape Sensitivity Assessment Guidance (Methodology)*. Available at: NatureScot: <https://www.nature.scot/doc/landscape-sensitivity-assessment-guidance-methodology> [Accessed: August 2025]

<sup>7</sup> NatureScot (2019). *Landscape Character Assessment - Dumfries and Galloway Landscape Evolution and Influences*. NatureScot.

7.6.5 Site visits for this landscape and visual assessment were carried out on 21 May 2021 and 26- 29 September 2023 when Visual Assessment Photographs were recorded (**see Figure 7.4 Viewpoint Photography**). Conditions during the visit were changeable with moderate to good levels of visibility. The Site visit was undertaken to corroborate the desk-based study and to capture photography from selected representative viewpoints.

### Assessment Methodology

7.6.6 The landscape and visual assessment have been undertaken in accordance with the Guidelines for Landscape and Visual Impact Assessment 3<sup>rd</sup> edition (GLVIA3)<sup>8</sup>. Photography and photomontages are in accordance with current Landscape Institute guidance <sup>9</sup>.

7.6.7 In accordance with GLVIA3, the level of effect and whether it is significant or not will be assessed based on the sensitivity of the affected receptor and the magnitude of change. Assigning values for sensitivity and magnitude for this topic will use the methodology, as outlined within **Appendix 7.1: L&V Methodology**.

7.6.8 The LVIA will include:

- An illustrated statement on the impact of the Proposed Development on the landscape character and value of the area. The statement will include a description of the methodology used to assess character and the criteria to determine value.
- An illustrated description of the visual impact of the Proposed Development on properties and locations that have public access.

7.6.9 The LVIA considers effects on landscape and visual receptors within the Study Area during Construction and Operation.

## 7.7 Proposed Development

7.7.1 The Proposed Development comprises a new 17.5 km 132 kV wood pole OHL extending between the proposed Holm Hill substation and the proposed Lorg Wind Farm.

7.7.2 The route would extend for approximately 9 km eastwards from the proposed Holm Hill substation, which lies to the north-west of Carsphairn, passing Quantans Hill before entering the Water of Ken Valley. The route would then extend northwards along the valley towards the proposed connection for the Lorg Wind Farm.

7.7.3 During construction of the development, proposed temporary features to be introduced to the landscape include:

- a construction compound;
- laydown areas;
- working areas;
- access tracks; and
- scaffolding to protect road, track and watercourse crossings during construction.

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<sup>8</sup> Landscape Institute (LI) and the Institute of Environmental Management and Assessment (IEMA) (2013). *The Guidelines for Landscape and Visual Assessment (GLVIA) 3<sup>rd</sup> Addition*.

<sup>9</sup> Landscape Institute (2019, under review 2024) *Visual Representation of Development Proposals*. Available at: <https://www.landscapeinstitute.org/visualisation/> [Accessed: August 2025]

## 7.8 Baseline Conditions

7.8.1 This section sets out the current landscape and visual conditions of the Site and the Study Area. The baseline study assists in identifying the important landscape components and key characteristics. The section provides a review of the key local guidance documents and identifies those landscape and visual receptors which merit detailed consideration in the assessment of effects and filters out those which are not taken forward for further assessment as effects “*have been judged unlikely to occur or so insignificant that it is not essential to consider them further*” (GLVIA3, para. 3.19).

7.8.2 The baseline study establishes the scope of the assessment and the key landscape and visual receptors, which would be potentially affected by the Proposed Development.

### The Site / Alignment

7.8.3 The proposed alignment runs west from Lorg Wind Farm down the north side of the Altry Burn into the valley of the Water of Ken. It then runs south-west, low on the eastern flank of the valley, passing west of the residential properties along the minor road to a point approximately a kilometre south of Craigengillan. From there, it runs west across rolling terrain, initially following the valley of the Craigengillan Burn to cross the ridge between Craigengillan and Marscalloch Hills at a low point, then across the lower flanks of Knockwhirn, north of Quantans Hill and along the valley of the Benloch Burn between Willeanna and Craig of Knockgray, and around the northern side of Holm Hill to terminate at Holm Hill Substation.

### ZTV

7.8.4 A ZTV has been produced to assess the likely visibility of the Proposed Development and to determine the potential landscape and visual receptors likely to be affected.

7.8.5 The ZTV is shown in **Figure 7.1 ZTV**, indicating areas of potential visibility of the Proposed Development modelled on pole height of up to 15.1 m Above Ordnance Datum (AOD) from the surrounding landscape. The ZTV analysis has been carried out using a topographic model, which does not take into account buildings and vegetation.

7.8.6 The ZTV pattern shown in **Figure 7.1 ZTV** reflects the topography of the Study Area. From a review of the ZTV and following the field survey undertaken in September 2023, it is noted that views towards the proposed OHL would appear visible within localised locations along the route, notably within the Water of Ken Valley to the east and from the Cairnsmore to Carspairn to Green Well Core Path (which is the main hillwalking access to this Corbett<sup>10</sup>) to the west.

### Landscape Designations

7.8.7 Reference to heritage assets and features is included within **Chapter 9: Cultural Heritage and Archaeology**. The designations below refer to designations affecting the landscape character of the Site and its wider setting. Designations associated with the Proposed Development are available on **Figure 7.3 Landscape Designations**.

7.8.8 Features beyond the 2 km study area are considered unlikely to be impacted as a result of the Proposed Development and, as such, have not been included for further assessment. Designations identified within the 2 km study area are noted below.

- The Dumfries and Galloway RSA is centred on the Rugged Granite Uplands and Coastal Granite Uplands located within central Galloway. The northernmost section of the Scenic Area extends across the western Proposed Development Area from Holm Hill to the south of Craigengillan Hill, east of Marbrick Burn.

7.8.9 The Proposed Development is, at its nearest point, over 5 km from the Doon Valley East Ayrshire Sensitive Landscape Area (SLA), which lies to the west of the Proposed Development, with the East Ayrshire Moorland and Upland SLA located at approximately 3 km to the north-west of the Proposed Development. It is therefore unlikely that the Proposed Development would have any significant effect on the reasons for designation, and as such is not considered further in this assessment.

7.8.10 There are no European Sites, National Designations or Wild Land Areas within the Study Area.

<sup>10</sup> Hills between 2500 and 3000 feet high, listed by the Scottish Mountaineering Club and popular destination summits.

### *Landscape Character*

7.8.11 The main source for the landscape character baseline to inform judgements within the Study Area is NatureScot's digital map-based national Landscape Character Types (LCTs)<sup>4</sup>.

7.8.12 The Proposed Development extends across four different LCTs, which have the potential to be impacted by the proposals. These LCTs are listed below and are demonstrated in **Figure 7.3 Landscape Designations**:

- Narrow Wooded River Valley (the upper valley of the Water of Ken, LCT 160)
- Southern Uplands with Forest (the forested hillsides above the valleys, LCT 178)
- Southern Uplands (the open hillsides above the valleys, LCT 177)
- Upper Dale (the broad valley of the Glenkens, Upper Glenkens, LCT 165)

### **Visual receptors**

7.8.13 Visual receptors are “*the different groups of people who may experience views of the development*” (GLVIA3, para 6.3). Whilst it is the people living, working, passing through or enjoying recreational activities in the area who actually see the view and enjoy the visual amenity, it is the places they may occupy that are mapped and described as the ‘receptors’ of the views. In order to identify those receptors that may be significantly affected, ZTV studies, baseline desk study, field-based observations and consultation with stakeholders have been carried out.

7.8.14 Key visual receptors are assessed under the following categories:

- settlements / communities;
- recreational users and visitors; and
- transport users.

### **Residential receptors**

7.8.15 Residential properties within 2 km of the Proposed Development within the ZTV, notably:

- residents at Brockloch Tower;
- residents at Marbrack Farm;
- residents at Fumiston;
- residents at Craigengillan;
- residents and visitors to River Ken Cottage B&B (Strahanna);
- residents at Auchrae;
- users of the Heart of the Shepherd’s Hut Holiday let at Polcheskie Brae (temporary residents);
- residents at Corlae; and
- residents at Nether Holm.

### **Recreational and visitor receptors**

- users of Core Path Cairnsmore of Carsphairn by Green Well (CARS/487/2);
- users of Core Path Cairnsmore of Carsphairn by Craig of Knockgray (CARS/182/1);
- users of Core Path Lorg Trail (CARS/215/4);
- users of Core Path Corlae (CARS/188/1); and
- recreational users accessing elevated summits.

### **Transport receptors**

- users of the A713 (Galloway Tourist Route); and

- users of the Lorg Road up the Water of Ken.

### Future Baseline

7.8.16 The existing landscape and visual baseline are envisaged to remain relatively stable throughout the majority of the Proposed Development area.

7.8.17 With regard to future developments, the following are to be considered:

- Holm Hill Substation;
- Lorg Wind Farm;
- Quantans Hill Wind Farm;
- Shepherds Rigg Wind Farm; and
- Undergrounding of existing 11 kV OHL line between Corlae and Strahanna.

7.8.18 The Holm Hill substation and Lorg Wind Farm are not included as part of this application but would impact the future landscape and visual baseline within the context of the Proposed OHL Development, introducing new industrial features within the Study Area associated with the Proposed Development, to which the proposed OHL would connect.

7.8.19 Quantans Hill Wind Farm is proposed on the land to the north-east of Carsphairn, across the undulating landscape east of Willieanna and Craig of Knockgray and concluding to the west of Marscalloch Hill. The Proposed Development would intersect the Quantans Hill Wind Farm proposals, extending across the landscape at this point. The Quantans Hill Wind Farm would therefore introduce further industrial features into the landscape within the immediate context of the Proposed Development.

7.8.20 Shepherds Rigg Wind Farm is situated on the land between Craigengillan Hill and Marscalloch Hill located within the area of commercial forestry. The Proposed Development would lie to the north of these proposals, beyond Craigengillan Hill, crossing the Water of Ken and extending northwards. The Shepherds Rigg Wind Farm development would lie within the area of commercial forestry but would introduce industrial features likely to appear visible against the skyline.

7.8.21 The undergrounding of the existing 11 kV OHL between Corlae and Strahanna would remove a section of the existing OHL and would replace it with an underground cable extending from the northern edge of Strahanna to the south of Corlea.

7.8.22 Additionally, it is noted that the presence of commercial forestry, particularly along the eastern section of the route where it lies within the Water of Ken valley, would result in changes to the landscape through forestry activity associated with felling and restocking of existing wooded areas, resulting in a changeable landscape in these areas. Further consideration with regard to likely significant effects resulting from the Proposed Development on forest and woodland areas is included within **Chapter 6: Forestry**.

## 7.9 Representative Viewpoints

7.9.1 In line with guidance (GLVIA3) representative viewpoints have been identified to inform the assessment. The representative viewpoints are used as 'samples' on which to base judgments of landscape and visual effects. In general, the representative viewpoints have been selected in locations where significant effects would be anticipated; though some may be selected outside of that zone – either to demonstrate the reduction of effects with distance; or to specifically ensure the representation of a particularly sensitive receptor. Most of the viewpoints represent multiple receptors.

7.9.2 Viewpoint locations are identified within **Figure 7.2 Viewpoint Location Plan**, with representative Viewpoint Photography and Wirelines included within **Figure 7.4 Viewpoint Photography** and **Figure 7.5 Wirelines**, respectively.

7.9.3 The viewpoints included (shown on **Figure 7.2 Viewpoint Location Plan** and listed below) are intended to provide a balance of views from different directions and different distances, as well as to pick out key viewpoints which comprise:

- viewpoint 1 - A713, by entrance to residential property Brockloch Tower;
- viewpoint 2.1 & 2.2 - Right of way adjacent to Benloch Burn;

- viewpoint 3.1 & 3.2 - West of Willieanna on Core Path Cairnsmore of Carsphairn by Green Well;
- viewpoint 4.1 & 4.2 - East of Holm Hill and the Water of Deugh on Core Path Cairnsmore of Carsphairn by Green Well;
- viewpoint 5 - Farm track at Marbrick on to east of Marbrick Farm;
- viewpoint 6 - Lorg Road to the north of Smittons Bridge;
- viewpoint 7.1 & 7.2 - Lorg Road, , within the Water of Ken Valley;
- viewpoint 8.1 & 8.2 - Bridge over the Water of Ken on Lorg Road at Stahanna;
- viewpoint 9.1 & 9.2 - Lorg Road south of the residential settlement at Corlae; and
- viewpoint 10 - View from Lorg Road west of Coranbae Hill.

## 7.10 Mitigation

7.10.1 This section describes the various mitigation proposals associated with the Proposed Development, and which aim to avoid or minimise adverse landscape and visual effects on the surrounding area, through the adoption of an integrated approach to the siting, layout and design of the Proposed Development. It outlines the various mitigation measures included within the design proposal as well as those related to the operation of the Proposed Development.

### Embedded Mitigation

7.10.2 Landscape and visual mitigation of the Proposed Development is embedded in the route selection process, which gives substantial weight to likely significant environmental effects on landscape character, landscape designations and visual amenity.

7.10.3 The proposed OHL alignment has been determined in consideration of environmental, technical, and economic factors and following consultation. The final alignment has sought to reduce likely significant landscape effects through the siting of the Proposed Route alignment within the lower ground and towards the base of valleys across the landscape, to avoid possible skylining, particularly towards Auchrae Hill.

7.10.4 In addition to the aligning of the route, lower within the valley to avoid skylining, the route alignment process also considered the likely significant impacts on visual receptors, most notably residents along Lorg Road. Following the Site survey, it was identified that residents along this route predominantly have views focused across the valley floor. The route has therefore been aligned to sit behind these dwellings, wherever possible, set towards the valley slope so as to further benefit from the backclothing of the existing landform and commercial forestry.

7.10.5 Additional mitigation measures to replace hedgerow/tree loss where vegetation has been removed to permit temporary Site access during the Construction Phase would also be undertaken.

7.10.6 The mitigation of effects on the landscape and visual resource during construction is integral to the construction process under the 'Considerate Contractors' process that is now routinely followed, such as tidy Site management to reduce visual clutter associated with the works; and use of construction lighting in accordance with best practice to minimise lighting intrusion to surrounding sensitive receptors.

7.10.7 The implementation of a Construction Environmental Management Plan (CEMP) would ensure that best practice standards are used during the construction and reinstatement periods, which would assist in minimising landscape and visual effects.

7.10.8 Additionally, whilst it is understood that it is beyond the scope of this assessment, it is noted that the existing OHL that lies along the Lorg Road corridor within the Water of Ken Valley is to be undergrounded from the junction of Lorg Road to the south of Strahanna, and to resurface to the south of Corlae. The proposed OHL would be set further back from the existing settlements in these areas, located towards the valley slopes behind dwellings along Lorg Road. Cumulative impacts associated with the introduction of the new OHL route are therefore not considered likely in this area.

7.10.9 Specific landscape and visual mitigation commitments that have been incorporated into the Proposed Development and listed within the CEMP are as follows:

- All construction compounds, laydown areas and temporary access tracks would be removed, and disturbed ground made good on completion of the construction works.
- Outside of the identified Operational Corridor, replacement planting is to be undertaken where existing vegetation was removed for temporary features during the Construction Phase.

## 7.11 Design Assumptions

### Construction

7.11.1 The construction of the Proposed Development would include the following aspects, which may have an effect on the landscape features, the character of the landscape and on visual amenity.

7.11.2 Construction activities likely to result in landscape and visual effects include:

- Felling of forestry and woodland within the Operational Corridor and along proposed access routes to accommodate the proposed OHL alignment:
- A cleared corridor through commercial conifer plantations to a maximum of approximately 70 m wide.
- Construction of temporary laydown areas across the scheme.
- Installation of temporary trackway/creation of temporary access tracks approximately 3.5 m wide where no existing access to the Site is available.
- Creation of temporary working areas around each pole location:
  - 30 m x 20 m working area to allow for foundation excavation and pole erection.
- Installation of temporary scaffolding at locations where the OHL needs to be strung over existing roads, tracks or watercourses.

7.11.3 The works listed above are predominantly temporary in nature. Temporary vegetation removal is likely to be required to accommodate proposed laydown areas, working areas and temporary access tracks. The laydown areas, working areas and temporary access tracks would be reinstated at the end of construction with all buildings and materials removed and soils appropriately reinstated.

7.11.4 Construction works would, however, result in the permanent loss of some existing vegetation where required to accommodate the Operational Corridor, allowing for permanent access through existing woodland areas.

7.11.5 Further information with regard to likely impacts and likely vegetation loss associated with the Proposed Development is referenced within **Chapter 6: Forestry** and **Chapter 8: Biodiversity and Ornithology**.

### Operational Period (Permanent Effects)

7.11.6 The main potential for significant permanent effects arising from the Proposed Development on landscape and visual receptors would be created by the following:

- The introduction of new wood poles and linear OHL features within the landscape.
- Creation of a new Operational Corridor/Wayleave and clearance of existing vegetation to east of Lorg Road north of Corlae.

## 7.12 Assessment of Effects

7.12.1 The likely significant effects of the Proposed Development are summarised in the following paragraphs. Full details of the assessment are set out in **Appendix 7.2: Landscape Assessment** and **Appendix 7.3: Visual Assessment**.

## Likely Effects During Construction

### *Effects on Landscape Character*

- 7.12.2 During construction, the movement of plant, introduction of temporary access roads, working areas and laydown areas, in addition to proposed vegetation loss, would cause both temporary and permanent landscape effects.
- 7.12.3 The proposed route alignment crosses four LCTs. Temporary significant landscape impacts are anticipated on the valley of the Water of Ken (LCT160 Narrow Wooded River Valley) and on the rolling moorland between Holm Hill and Craigengillan Hill (LCT177 Southern Uplands).
- 7.12.4 The proposed alignment extends along the majority of the length of the valley of the Water of Ken (LCT160 Narrow Wooded River Valley), a relatively enclosed and intimate landscape, considered to be of medium sensitivity to the Proposed Development. Construction activity and the forestry removal required to accommodate the Operational Corridor would be a change of high magnitude, giving rise to a **moderate adverse** effect on the character of the landscape.
- 7.12.5 The proposed alignment runs across the south of the unit of LCT177 Southern Uplands, centred on Cairnsmore of Carsphairn, Beninner and Moorbrook Hill and, considering the perceptibility of development, is likely to affect the southern half of the area. It is noted that the majority of this LCT lies within the Dumfries and Galloway RSA, which is a regionally valued landscape. It is therefore considered to be of high sensitivity to the Proposed Development. Despite the undulating landform, this is an exposed landscape comprised principally of rough moorland, with limited settlement and few publicly accessible roads. The introduction of plant and temporary infrastructure at the Construction Phase would be a change of low magnitude, but, given the high sensitivity, a **moderate adverse** effect on the character of the landscape.

### *Effects upon Visual Amenity*

- 7.12.6 Similar to the effects on landscape character during Construction Phase, the movement of plants, addition of temporary access routes, laydown areas and working areas and the loss of vegetation associated with the Proposed Development would result in both temporary and permanent effects on the visual amenity of identified receptors.
- 7.12.7 The proposed route alignment as it extends between the proposed Lorg Wind Farm at Altry Hill and the proposed substation at Holm Hill, would extend across three Core Paths and would lie close to one other. In addition, the route alignment as it lies within the Water of Ken valley would lie within 500 m of residential dwellings at settlements off Lorg Road, namely Craigengillan, Strahanna, Auchrae, Corlae and Nether Holm.
- 7.12.8 Visual receptors of the route are therefore predominantly comprised of recreational hillwalkers or users of Core Paths and residents of dwellings that lie within the Study Area. Both residential and recreational receptors are considered to have an appreciation for the wider landscape and views, and therefore are considered to have high sensitivity. In addition to these receptors, two additional receptors from road users of the A713 and Lorg Road were identified. The A713 forms a part of the Dumfries and Galloway National Tourist route; therefore while it is noted that some users may be travelling at high speeds, some users are likely to be travelling this route for the enjoyment of the views. Lorg Road, however, is a narrow rural road corridor and as such users would be travelling at slower speeds with some appreciation for the landscape. Users of both these routes are therefore considered to be of medium sensitivity.

7.12.9 At Construction Phase, due to the increased movement and presence of plant and temporary infrastructure and features within the landscape, it is anticipated the majority of visual receptors would experience a **moderate adverse** effect on visual amenity. Exceptions to this are, however, residents at Marbrick Farm who experience **negligible** effects, residents at Craigengillan and residents at Auchrae and users of Shepherd's Hut at Polcheskie Brae who would experience **moderate to major adverse** effects. Residents at Marbrick Farm are likely only to experience a minor degree of change within the landscape, situated approximately 1.7 km from the main route alignment. Visual effects would therefore be limited to the movement of construction vehicles along the existing track that lies to the east of the Farm, which would be filtered in part by existing vegetation. Residents at Craigengillan are likely to experience moderate to major effects on visual amenity with outward-facing views across the Water of Ken valley. Residents at this location lie within 500 m of the route with limited vegetation on the eastern slopes affording clearer views towards construction activity associated with the Proposed Development. Residents at Auchrae and users of Shepherd's Hut at Polcheskie Brae are also located within close proximity to the Proposed Development and as such are similarly likely to experience **moderate to major effects** on visual amenity, however, the proposed route would lie to the rear of dwellings with outward-facing views towards the valley, not likely to be impacted as a result of the Proposed Development.

### **Likely Effects During Operation**

#### *Effects upon Landscape Character*

7.12.10 At the Operational Phase, it is noted that temporary infrastructure, built structures and associated construction activity would have ceased or been removed, with vegetation or earthworks reinstated where not required as part of the Operational Corridor. With the reduction of movement within the landscape, effects upon the landscape character are likely to appear reduced. As outlined within **Section 7.10**, the proposed alignment has sought to reduce landscape impacts as far as possible, through siting to avoid potential skylining where possible and situating the proposed route within the lower sections of the valley. No significant changes to landscape character are therefore anticipated at Operation Year 1 and Operation Year 15.

#### *Effects upon Visual Amenity*

7.12.11 At the Operation Phase, it is noted that the visual effects associated with the Proposed Development would have significantly reduced. At this phase, construction activity would have ceased, and all temporary structures and features would have been removed from the Proposed Development Area.

7.12.12 Due to the undulating landform, intervening vegetation and, in some instances, physical separation of the Proposed Development from identified receptors, it has been assessed that for the majority of identified visual receptors, effects would have reduced to **minor adverse or negligible**, which is not considered significant.

7.12.13 With regards to residents at Craigengillan, however, it is noted that at Operation Phase, whilst construction activity would have ceased, due to the limited vegetation on the eastern valley slope and the outward facing views of the residents across the valley floor, some poles are likely to appear visible against the skyline. **Moderate adverse** effects are therefore still considered likely upon these residents at the Operation Phase.

7.12.14 At Operation Year 15, it is noted that poles would have softened to a degree and further integrating into the landscape through a degree of weathering. In addition, at Operation Year 15 it is noted that the existing young planting along Benloch Burn and the Water of Deugh would have sufficiently matured to further filter and contain views of the proposals from users of Core Path Cairnsmore of Carsphairn by Green Well (CARS/487/2) and to a limited degree would likely appear as a backdrop within views from the A713 and Brockloch Tower to the south.

7.12.15 Views from residents at Craigengillan, while likely to appear softened to a degree due to weathering of the proposed poles, are unlikely to be significantly altered from Operation Year 1, and as such, an effect of **Moderate adverse** is likely to remain.

7.12.16 A complete assessment of the effects upon visual amenity at Operation Phase is provided within **Appendix 7.3: Visual Assessment**.

## 7.13 Summary and Conclusions

7.13.1 In summary, it is considered that the Proposed Development would result in likely significant effects upon Landscape and Visual receptors during the Construction Phase, extending across the open and expansive landscape associated with Cairnsmore of Carsphairn and along the enclosed landscape adjacent to the Water of Ken within the Narrow-Wooded Valley LCT. Significant landscape effects are therefore considered likely within this LCT in addition to the Southern Uplands LCT, which forms a part of the Dumfries and Galloway RSA. At the Operation Phase, these are considered to reduce to non-significant effects as construction activity ceases, with only minor changes to the landscape likely to be experienced resulting from the removal of forestry to support the operational corridors.

7.13.2 With regard to visual effects, it is noted that significant visual effects are likely to be experienced by a number of recreational receptors (notably users of Core Paths towards Cairnsmore and Carsphairn) and residential receptors off Lorg Road, resulting from the increased movement introduced by construction activity within the landscape. At the operational phase, construction activity would have ceased within the landscape. Whilst it is noted that views towards the Proposed Development would likely remain visible, the proposed alignment would be set low with the landscape or set back from residents, obscured by topography and/or backclothed by existing forestry and landform in the majority of cases. It is therefore considered that at the operational phase, the Proposed Development would not appear visually prominent within views, with the exception of views from residents at Craigengillan who would likely experience an effect of **moderate adverse (significant)** effect upon views outwards across the Water of Ken Valley, due to the limited vegetation evident on the eastern valley slope and potential for skylining.

7.13.3 The below **Table 7.2** and **Table 7.3** summarise the residual effects at both Construction and Operation Phase as included within the Landscape Assessment and Visual Assessment included within **Appendix 7.2 and 7.3**, respectively.

**Table 7.2: Summary of Landscape Effects**

Description of Effect	Residual Effect	
	Magnitude	Significance
<b>Construction</b>		
LCT160 Narrow Wooded River Valley	Moderate adverse	Significant
LCT165 Upper Dale	Negligible neutral	Not significant
LCT177 Southern Uplands	Moderate adverse	Significant
LCT178 Southern Uplands with Forest	Minor adverse	Not significant
<b>Operation Year 1</b>		
LCT160 Narrow Wooded River Valley	Minor adverse	Not significant
LCT165 Upper Dale	Negligible neutral	Not significant
LCT177 Southern Uplands	Negligible neutral	Not significant
LCT178 Southern Uplands with Forest	Negligible neutral	Not significant
<b>Operation Year 15</b>		
LCT160 Narrow Wooded River Valley	Negligible neutral	Not significant
LCT165 Upper Dale	Negligible neutral	Not significant

Description of Effect	Residual Effect	
	Magnitude	Significance
LCT178 Southern Uplands with Forest	Negligible neutral	Not significant
LCT178 Southern Uplands with Forest	Negligible neutral	Not significant

**Table 7.3: Summary of Visual Effects**

Description of Effect	Residual Effect	
	Magnitude	Significance
<b>Construction</b>		
Residents at Brockloch Tower	Moderate adverse	Significant
Road users of Galloway Tourist Route A713	Moderate adverse	Significant
Users of Core Path Cairnsmore of Carsphairn by Green Well (CARS/487/2)	Moderate adverse	Significant
Recreational users with elevated views	Moderate adverse	Significant
Users of Core Path Cairnsmore of Carsphairn by Craig of Knockgray (CARS/182/1)	Moderate adverse	Significant
Users of Core Path Corlae (CARS/188/1)	Moderate adverse	Significant
Residents at Marbrick Farm	Minor adverse	Not significant
Residents at Fumiston	Moderate adverse	Significant
Users of Lorg Road	Moderate adverse	Significant
Residents at Craigengillan	Moderate-major adverse	Significant
Residents and visitors to River Ken Cottage B&B (Strahanna)	Moderate adverse	Significant
Residents at Auchrae	Moderate adverse	Significant
Residents at Corlae	Moderate adverse	Significant
Residents at Nether Holm	Moderate adverse	Significant
Users of Core Path Lorg Trail (CARS/215/4)	Moderate adverse	Significant
<b>Operation Year 1</b>		
Residents at Brockloch Tower	Negligible	Not significant

Description of Effect	Residual Effect	
	Magnitude	Significance
Road users of Galloway Tourist Route A713	Minor adverse	Not significant
Users of Core Path Cairnsmore of Carsphairn by Green Well (CARS/487/2)	Minor adverse	Not significant
Recreational users with elevated views	Minor adverse	Not significant
Users of Core Path Cairnsmore of Carsphairn by Craig of Knockgray (CARS/182/1)	Minor adverse	Not significant
Users of Core Path Corlae (CARS/188/1)	Negligible	Not significant
Residents at Marbrack Farm	Negligible	Not significant
Residents at Fumiston	Negligible	Not significant
Users of Lorg Road	Minor adverse	Not significant
Residents at Craigengillan	Moderate adverse	Significant
Residents and visitors to River Ken Cottage B&B (Strahanna)	Minor adverse	Not significant
Residents at Auchrae	Minor adverse	Not significant
Residents at Corlae	Minor adverse	Not significant
Residents at Nether Holm	Negligible	Not significant
Users of Core Path Lorg Trail (CARS/215/4)	Minor adverse	Not significant
<b>Operation Year 15</b>		
Residents at Brockloch Tower	Negligible	Not significant
Road users of Galloway Tourist Route A713	Negligible	Not significant
Users of Core Path Cairnsmore of Carsphairn by Green Well (CARS/487/2)	Negligible	Not significant
Recreational users with elevated views	Minor adverse	Not significant
Users of Core Path Cairnsmore of Carsphairn by Craig of Knockgray (CARS/182/1)	Minor adverse	Not significant
Users of Core Path Corlae (CARS/188/1)	Negligible	Not significant

Description of Effect	Residual Effect	
	Magnitude	Significance
Residents at Marbrack Farm	Negligible	Not significant
Residents at Furmiston	Negligible	Not significant
Users of Lorg Road	Minor adverse	Not significant
Residents at Craigengillan	Moderate adverse	Significant
Residents and visitors to River Ken Cottage B&B (Strahanna)	Minor adverse	Not significant
Residents at Auchrae and users of Shepherd's Hut at Polcheskie Brae	Negligible	Not significant
Residents at Corlae	Minor adverse	Not significant
Residents at Nether Holm	Negligible	Not significant
Users of Core Path Lorg Trail (CARS/215/4)	Minor adverse	Not significant