

Beauly to Blackhillock to New Deer to
Peterhead 400 kV Project
Environmental Impact Assessment Report
Volume 5 | Appendices

Appendix 12.1.14: Woodland Report Parcel 13138, Reelig





APPENDIX 12.1.14: Woodland Report Parcel 13138, Reelig

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1 Introduction

- 1.1.1 This Appendix presents information relevant to the Beauly to Blackhillock to New Deer to Peterhead 400 kV Overhead Line (OHL) Project (the Proposed Development). It should be read in conjunction with the Environmental Impact Assessment (EIA) Report, specifically **Chapter 12: Forestry**, for full details of the Proposed Development.
- 1.1.2 As part of the EIA, it has been identified that construction of the Proposed OHL Alignment and the associated access tracks would cross several woodland areas within private or publicly owned landholdings.
- 1.1.3 This woodland report has been prepared to assess the potential impacts of the Proposed Development on Woodland, Parcel 13138, Reelig. It includes the requirements for woodland removal and management recommendations to mitigate the impact of the woodland removal. The report provides an overview of the characteristics of the affected woodland, including woodland composition, site conditions, soil conditions, exposure levels and existing felling approvals. The report also provides details of existing infrastructure, and potential constraints related to forestry operations. It aims to inform decision-making by identifying key environmental and logistical considerations associated with the Proposed Development. Additionally, it evaluates the feasibility of timber extraction and access whilst highlighting necessary mitigation measures to minimise disruption to the woodland ecosystem and surrounding landscape.
- 1.1.4 Field surveys of the woodland areas have been undertaken and have been used to determine the various woodland characteristics, to identify the woodland removal required and recommended. This document also sets out the area quantity hectares (ha) to be compensatory planted to ensure no net loss of woodland is achieved.

2 Woodland property

2.1.1 The landholding property boundaries are identified in Figure 12.1.14a: Parcel 13138 Location Map. The woodlands lie on the lower northern slopes of The Aird in the locality of Reelig, approximately 1.6 km southwest of the settlement of Inchmore and are located at grid reference NH 563251 436332.

3 Development Requirements

3.1 400 kV Overhead Line Infrastructure Requirements

- 3.1.1 The Study Area for this assessment initially focussed on a 100 m width either side of the centreline of the Proposed OHL Alignment and ancillary infrastructure, where relevant, prior to the identification of an Operational Corridor (OC). The Applicant defines the OC as the area in which it has rights to remove woodland for the purposes of the safe construction, resilience and continued maintenance of OHLs, or protection of electrical plant as required by the Electricity Safety, Quality and Continuity Regulations (ESQCR) 2002¹ and The Electricity Act 1989². The OC is defined based on two different factors as follows:
 - The first factor in which the OC is determined is with reference to the distance at which a tree could fall and cause damage to the OHL, resulting in a supply outage. As a result, the OC width would be based on the safety distance required to allow for a mature tree falling towards the OHL at the mid-point on an OHL span between two towers, taking account of topography and tree height at maturity. Standard falling distance for a mature conifer tree is considered to be a minimum of 45 m. Where the OC passes through areas of broadleaved woodland, it is noted that the width of woodland removal is likely to be reduced, due to the general lower height and characteristics of the tree species present.

¹ UK Gov (2002). The Electricity Safety, Quality and Continuity Regulations 2002. Available at: The Electricity Safety, Quality and Continuity Regulations 2002.

² UK Gov (1989). Electricity Act 1989. Available at: <u>Electricity Act 1989</u>



- The second factor that is considered is the maximum distance that the OHL conductors can blow out from the tower under a 1 in 50-year return period wind condition, plus the required electrical clearance distance. This is to ensure that the OHL conductors do not come into contact with, or come close enough to, any object that could result in an electrical clearance infringement. This conductor blowout distance varies between each tower dependent on span length and must therefore be considered on a span-by-span basis.
- The typical OC required within areas of commercial conifer forestry for a 400 kV OHL is 90 m (i.e. 45 m either 3.1.2 side of the centre line). Where the OC passes through areas of broadleaved woodland, it is proposed that the extent of woodland removal is likely to be reduced due to the lower height of the tree species present. The OC for the Proposed OHL Alignment through areas of broadleaved woodland has been reduced to 70 m (i.e. 35 m either side of the centre line of the OHL). This has been based on the likely height of the woodland at maturity. Where any woodland removal within the OC is proposed to be reduced from the 45 m either side of the line, a site-specific assessment must be carried out to confirm that the conductor blowout does not exceed the OC width. If the conductor blowout exceeds the OC, then the width of the OC must be increased to meet the requirements of the blowout assessment as a minimum. This will ensure compliance with ESQCR requirements and that the required safety clearances are maintained.
- 3.1.3 A resilient OC of 70 m in width is required throughout the woodland area within Woodland Parcel 13138 where native woodland is present, and 90 m where mature Scots pine woodland is encountered and taking into account the requirements of the conductor blowout assessment. The OC is illustrated in Figure 12.1.14b: Parcel 13138 Proposed Felling Requirements.

3.2 Access Track Route Design

The proposed section of OHL consists of a section of OC between towers BC5-1 to BC4-8A. The proposed access tracks in this section are located within the OC; a temporary track will be constructed extending northwest from tower BC5-1 to BC4-9A. Another temporary track will also be created across agricultural ground to facilitate access from the north.

Woodland Characteristics

Woodland Composition and Site Conditions 4.1

- 4.1.1 The woodland was surveyed in November 2024. The Proposed OHL Alignment passes through sections of mature and semi mature native broadleaved woodland and mature conifer plantation.
- 4.1.2 The native woodland directly to the south of Tower BC4-8A is not recorded on the AWI. It comprises of semi mature stands of Alder (CAR), Downy birch (DBI), Goat willow (GWL), Ash (AH), and Elm (EM) species. There are occasional Beech (BE) and Sitka spruce (SS) and Scots pine (SP) in the woodland. Parts of these woodlands are identified within NatureScot's Ancient Woodland Inventory³ as Long Established of Plantation Origin (LEPO).
- 4.1.3 The broadleaved woodland is identified on the Native Woodland Survey of Scotland (NWSS)⁴ as 'Lowland Mixed deciduous woodland' with a mixture of age classes and 85 % native species composition.
- The commercial conifer woodland at tower BC4-9A is a mixture of commercial conifer species including SS, Norway spruce (NS), Hybrid larch (HL) and Douglas Fir (DF), with DBI and BE regeneration in the understory. This is a mature stand approximately 40 years old with occasional windblown trees.

³ NatureScot. A guide to understanding the Scottish Ancient Woodland Inventory (AWI). Available at: https://www.nature.scot/doc/guide-understanding-scottish-

ancient-woodland-inventory-awi

Scottish Forestry. Native Woodland Survey of Scotland. Available at: https://www.forestry.gov.scot/forests-environment/biodiversity/native-woodlands/nativewoodland-survey-of-scotland-nwss



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- There are also a number of significant BE trees to a height of 30m and diameters in excess of 1m persisting in the woodlands, from previous field boundary plantings. These have provided a seed source for regeneration, which is apparent to pole stage development.
- 4.1.6 The native woodland continues along the Allt Na Criche watercourse adjacent to tower BC4-9A, with Be becoming increasingly frequent in the overstory, appearing to be natural regeneration of previous adjacent field boundary trees. Native species are still highly prevalent in the stand with CAR, DBI and AH common, and with Holly (HO), Hazel (HAZ), and Wild cherry (WCH) present. To the southern boundary of the native woodland there are very large specimens of BE with mature and semi-mature SOK.
- 4.1.7 The site has a warm, sheltered and moist climate, with a maximum Detailed Aspect Method of Scoring (DAMS) score of 95,6.
- 4.1.8 The Ecological Site Classification describes the site as having a warm, sheltered and moist climate. The soils have a slightly dry moisture status and are very poor nutrient status.
- 4.1.9 The Soil Map of Scotland⁸ identifies the soils as being predominantly are humus iron podsols soils. However, given the site's historical use as agricultural land, there is a high likelihood that the soil structure has been altered over time.
- 4.1.10 The closest public road suitable for haulage adjacent to the ownership is the U1568, Reelig Road. This is classed as a Consultation Route⁹ by the Timber Transport Forum¹⁰. There is currently no existing suitable internal forest or wider estate infrastructure for access and extraction purposes. Considering the quality and quantity of the material and the landform operations can be carried out by a combination of harvester / forwarder in the conifer woodland and motor manual felling and smaller scale tractor extraction on the broadleaved woodland.

4.2 Photo Record - Operational Corridor Assessment

4.2.1 The following photographs provide a visual record of key locations along the OC. Each image illustrates existing vegetation types, land use, and notable landscape features relevant to the planning and management of the OC. Particular attention has been given to areas of mature woodland, natural regeneration, and locations where proposed works may intersect with ecologically or visually sensitive habitats. The photos are intended to support site assessments and inform mitigation strategies.

⁵ Forest Research (2025). Available at: http://www.forestdss.org.uk/geoforestdss/

⁶ The Detailed Aspect Method of Scoring (DAMS) is a system used to assess wind exposure in forestry and land management. It provides a numerical score that quantifies the level of exposure a site experiences based on factors such as elevation, topography, and aspect (the direction a slope faces). The DAMS score helps foresters predict wind risk, which is crucial for understanding tree stability, growth potential, and the likelihood of windthrow (trees being uprooted or broken by wind) The scoring system ranges from 0 to 24, with higher scores indicating more exposure to wind.

⁷ Ecological Site Classification, Available at: http://www.forestdss.org.uk/geoforestdss/

B National Soil Map of Scotland. Available at: https://soils.environment.gov.scot/maps/soil-maps/national-soil-map-of-scotland/

⁹ Consultation Routes are recognised as being key to timber extraction but are not up to Agreed Route standard. Consultation with the Local Authority is required and it may be necessary to agree limits of timing, allowable tonnage etc. before the route can be used. B roads and minor roads that are not categorised should be assumed to be Consultation Routes unless covered by one of the other classifications (e.g. Severely Restricted Route).

The Timber Transport Forum. Introduction to Agreed Routes Map. Available at: <a href="https://timbertransportforum.org.uk/agreed-routes-map/introduction-to-agreed-routes-map/introduction-route

routes-map/



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Photo 1: View at NH 562921 437652 between towers BC4-8A and BC4-9A looking north. Showing native woodland of downy birch, alder, willow within the proposed OC, individual Sitka spruce





Photo 2: View at NH 563791 435291 at tower BC4-9A looking northeast. Showing unthinned Norway spruce crop





Photo 3: View at NH 564461 435441 at tower BC4-9A looking north northwest. Showing mature Beech adjacent to mature conifer stand





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Photo 4: View at NH 564011 434555 looking northeast. Showing mixed conifer crop with broadleaved regeneration in the understory

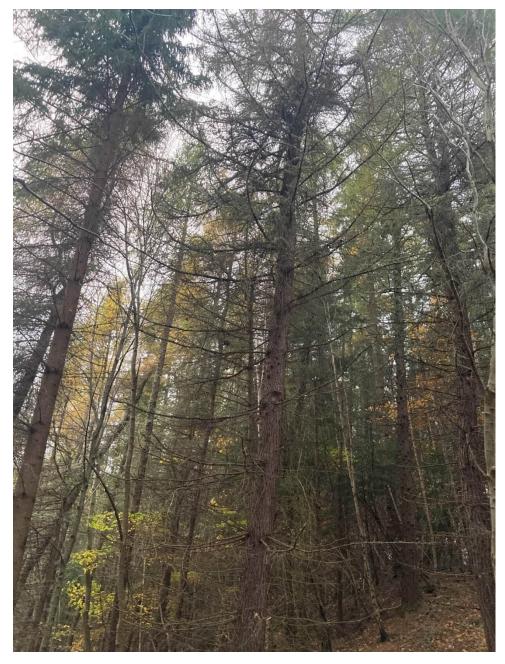
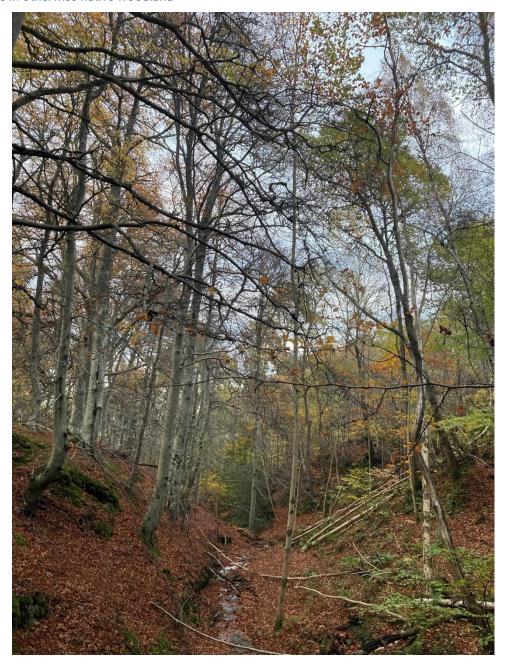




Photo 5: View at NH 564110 434565 looking north. Showing stand of Beech on the west bank of the Allt na Criche in otherwise native woodland





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Photo 6: View at NH 565041 433579 looking north. Showing semi mature Sessile oak and Beech on the west bank of the Allt na Criche at the adjacent field boundary



5 Windblow Risk

- It is acknowledged that the creation of the OC would result in wider potential indirect effects on the surrounding 5.1.1 woodland areas. These areas would be subject to potential increased risk of damage (windblow). Each woodland report identifies further areas of felling to a windfirm edge, defined as 'Management Felling' (categorised as an indirect secondary impact), which is covered in more detail in the Section 12.4. Management felling would be considered as part of any application for felling permission. This would provide restocking as agreed with Scottish Forestry which would result in balancing the loss of woodland. Any felling undertaken out with the OC would be solely under the control of the relevant landowner (and not the Applicant). It is the intention of the Applicant to encourage the landowners to follow this good practice in terms of redesign of their current Long-Term Forest Plans, which in-turn would aim to follow UK Forestry Standard (UKFS)¹¹ for the implementation of the works required.
- There is a substantial risk of windthrow being precipitated by the proposed felling in the OC, given the maturity of 5.1.2 the unthinned commercial conifer crop adjacent to the proposed OC.
- 5.1.3 The more open grown and mixed age class structure of the native woodland suggests that windblow will not be a risk at these locations.

6 Woodland Management Impact

6.1.1 Given the maturity of the commercial woodland at the western boundary of the OC, best practice suggests that management felling to windfarm boundaries will be required in this mixed conifer crop. This is estimated to be a single felling coupe extending to 2.71 ha.

¹¹ Scottish Forestry (2024). UK Forestry Standard (UKFS). Available at: https://www.forestry.gov.scot/publications/sustainable-forestry/uk-forestry-standard-ukfs



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 - 6.1.2 While tree felling within the OC will result in a reduction in the total area of woodland, this loss is marginal and should not significantly affect overall forest management at a larger scale.
 - 6.1.3 The Proposed OHL Alignment introduces an electrical hazard, but the constraint associated with the electrical hazard will be reduced by regular maintenance of the OC which will avoid the incidences of "Red Zone" trees (reference Forest Industry Safety Accord (FISA) 804 "Electricity at Work: Forestry" 12).
 - 6.1.4 The total loss of Native Broadleaved woodland resulting from the proposed alignment is 1.78 ha.

7 Mitigation Opportunities

7.1 Woodland Mitigation Measures

- 7.1.1 To mitigate the landscape impact of the Proposed OHL Alignment a re-planting strategy for areas at The Aird has been set out in the 'Landscape Replanting Proposals' in the Landscape chapter as shown in **Figure 12.1.14c**:

 Parcel 13138 Proposed Planting Areas.
- 7.1.2 Given the incised nature of the Allt na Criche burn at certain locations it may be possible to carry out selective crown reduction, focused on mature trees with high ecological value, ensuring that reduction is carried out in a manner that retains structural diversity.
- 7.1.3 Retention of Deadwood and Pruned Material Where possible, pruned branches and deadwood should be left on-site to enhance biodiversity, providing habitat for insects, fungi, and small mammals.
- 7.1.4 Monitoring and Adaptive Management Regular assessment of tree health and habitat response to inform future management decisions.

7.2 Restructuring

7.2.1 The commercial section of forest within this ownership is single aged and unthinned and would be felled all at once if the intention were to clearfell in the future. Therefore, there is no positive or negative impact of the felling on the structure within the ownership.

7.3 Restocking

- 7.3.1 Restocking would be carried out by the landowner in all areas out with the OC with suitable species to continue the commercial viability of the woodland.
- 7.3.2 As set out in the Landscape chapter under the 'Landscape Replanting Proposals' restocking can take place within the OC to mitigate the visual impact of the OC. Restocking within the OC will be carried out by the applicant as shown in Figure 12.1.14c: Parcel 13138 Proposed Planting Areas.

8 Net Effect / Summary

8.1.1 **Tables 8.1 to 8.4** outline the operational requirements for forestry management within the OC between towers BC4-8A to BC5-1A within this parcel. They detail the areas designated for clear felling, both within the OC and additional recommended Management Felling outside the OC to address windthrow risks and forest design considerations.

¹² Forest Industry Safety Accord (2020), FISA 804 Electricity at Work: Forestry. Available at: https://ukfisa.com/Safety/Safety-Guides/fisa-804



Table 8.1: Woodland removal for Infrastructure, within OC

Item	Woodland Type	Area (ha)
OC felling	Native Broadleaved Woodland (70 m)	1.78
OC felling	Commercial Conifer Woodland (90 m)	0.83
Total area		2.62

Table 8.2: Compensatory Planting

Item	Woodland Type	Area (ha)
Compensatory Planting Area	Native Broadleaved Woodland	1.78
Compensatory Planting Area	Commercial Conifer Woodland	0.83
Total area		2.62

Table 8.3: Woodland Removal Impact of Infrastructure

ltem	Area (ha)
Total Loss of Woodland Area	2.62
Total Compensatory Planting Area	2.62
Total Net Loss of Woodland Area	

Table 8.4: Woodland removal for Management Felling, outwith OC.

Item	Woodland Type	Area (ha)
Management Felling	Commercial Conifer Woodland	2.71
Replanting / Restocking Opportunities	Commercial Conifer Woodland	2.71
Net Loss of Woodland Area		0.00

Compensatory Planting 9

- Only areas directly impacted by the OC will be included in the compensatory planting total, in accordance with the Control of Woodland Removal Policy (CoWRP)13. This policy ensures that woodland loss due to development is mitigated by appropriate replanting or regeneration efforts, but it specifically applies to areas where tree removal is necessary for the Proposed Development. See Appendix 12.3 Compensatory Planting Strategy.
- 9.1.2 Any additional felling outside the OC, such as areas cleared for windthrow management or forest design improvements, falls under the responsibility of the landowner and is not included in the compensatory planting requirements. Instead, these areas may be replanted under a forest plan revision or felling license at the landowner's discretion. This approach aligns with national forestry guidelines, balancing infrastructure development with sustainable woodland management.
- 9.1.3 The total amount of net felling requiring compensation under the CoWRP is 2.62 ha.

In order to provide a greater balance limiting long-term impacts on forestry interests it is proposed that the majority of this woodland loss is compensated via off-site compensatory planting within the same local authority area. It is proposed that full details of the areas subject to this off-site compensatory planting is notified to Scottish Forestry prior to energising the OHL.

¹⁵ Forestry Commission Scotland (2009). Control of Woodland Removal Policy. Available at: https://www.forestry.gov.scot/publications/285-the-scottish-governments-policy-on-control-of-woodland-removal/viewdocument/285

