

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

Appendix 12.1.25: Woodland Report Parcel 130, Dochgarroch Woodland





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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 Dochgarroch Woodland, Parcel 130. 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 hectare (ha) to be compensatory planted to ensure no net loss of woodland is achieved.

2 Woodland Property

2.1.1 The woodlands along the Caledonian Canal are found at Dochgarroch, between the River Ness and the Caledonian Canal, 5.5 km southwest of Inverness at NH 630561 407677. The area can be accessed on foot via the locks at Dochgarroch or by vehicle (restricted access) from Inverness. The woodlands consist of a thin strip of mixed broadleaves and are owned and managed by Scottish Canals.

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

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>



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- 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.
- 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.
- 3.1.2 The typical OC required within areas of commercial conifer forestry for a 400 kV OHL is 90 m (i.e. 45 m either 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 native woodland within Woodland Parcel 130, taking into account the requirements of the conductor blowout assessment. The OC is illustrated in **Figure 12.1.25b**: Parcel 130 Proposed Felling Requirement.

3.2 Access Track Route Design

3.2.1 No access tracks are proposed within this woodland.

4 Woodland Characteristics

4.1 Woodland Composition and Site Conditions

- 4.1.1 The woodland was surveyed in January 2025. The woodland is currently a mixed broadleaved woodland. On the strip of land, a mix of beech (BE), ash (AH), sycamore (SYC), and several other broadleaved trees of approximately 15 meters in height have developed. The woodland in and around the OC is of mixed age.
- 4.1.2 The strip of land is well used for recreation and is key infrastructure for water safety.
- 4.1.3 The section of Proposed OHL Alignment is sheltered as it is in the low point of the Great Glen. As a result, the area has low exposure with a Detailed Aspect Method of Scoring (DAMS) score of 9^{3} ⁴.
- 4.1.4 The National Soil Map of Scotland⁵ indicates the dominant soil types within the site are humus-iron podzols soils.
- 4.15 The Ecological Site Classification (ESC)⁶ identifies the site as having a warm, sheltered, and moist climate. The soils have a slightly dry moisture status and a very poor nutrient status.
- 4.1.6 The woodlands are recorded in the Native Woodland Survey of Scotland⁷ as Nearly-native woodland.
- 4.1.7 No environmental designations apply to this parcel.

³ Forest Research (2025). Available at: <u>http://www.forestdss.org.uk/geoforestdss/</u>

⁴ 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.

⁵ Scottish Government (2024). Available at: https://soils.environment.gov.scot/maps/soil-maps/national-soil-map-of-scotland/

⁶ Ecological Site Classification. Available at: http://www.forestdss.org.uk/geoforestdss/

⁷ Scottish Forestry (2014). Available online at: https://www.forestry.gov.scot/forests-environment/biodiversity/native-woodlands/native-woodland-survey-of-scotland-nwss.

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 - 4.1.8 No active felling permissions or forest design plans were found for the area.
 - 4.1.9 The Proposed OHL Alignment consists of a section of OC between towers CB1-1 and CB1-2. There are no tracks associated with this section of OC.
 - 4.1.10 Access to this strip is limited as a result of the isolated location. There is potentially access for vehicles and (small) machinery from the north.
 - 4.1.11 Considering the quality and quantity of the timber and the access constraints, operations would best be carried out using hand felling and small machinery to remove timber off-site. Trees on the slope down towards the river Ness might need winched over to prevent them falling into the river.
 - 4.1.12 The closest forest road suitable for haulage within the ownership is the A802. This is classed as an Agreed Route by the Timber Transport Forum^{8,9}. The existing internal forest and wider estate infrastructure can be utilised for access and extraction purposes.

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.

Photo 1: Strip of mixed broadleaved woodland looking east towards CB1-2 across the Caledonian Canal (NH 629521 407781, looking southeast)



⁸ The Timber Transport Forum. Introduction to Agreed Routes Map. Available at: https://timbertransportforum.org.uk/agreed-routes-map/introduction-to-agreed-routes-map/

⁹ Roads which can be used for timber haulage without restriction other than as regulated by the Road Traffic Act 1988. "A" roads (e.g. the A9) are classified as Agreed Routes by default unless covered by one of the other categories



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Photo 2: Path along canal and adjacent strip of broadleaved woodland (NH 629763 407976, looking southeast)





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Photo 3: Steep bank down to river Ness on eastern side of the strip of land (NH 630341 407760, looking southwest)



5 Windblow Risk

- 5.1.1 It is acknowledged that the creation of the OC would result in wider potential indirect effects on the surrounding 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). This is covered in more detail in the **Chapter 12**: **Forestry** in **Section 12.4**. Any felling undertaken outwith 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)¹⁰ for the implementation of the works required.
- 5.1.2 There is low risk of windblow in this area of woodland. The individual stability of the trees is high because of the low tree density and mixed age class.

6 Woodland Management Impact

6.1.1 Considering the woodland is not managed for a commercial purpose it is expected the line will not impact the woodland management of the strip of land in the long-term.

¹⁰ Scottish Forestry (2024). Available online at: https://www.forestry.gov.scot/publications/sustainable-forestry/uk-forestry-standard-ukfs

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 - 6.1.2 As there will be no infrastructure built to access this strip of woodland there will be no benefit to the landowner. However, to provide continued access to the woodlands to the south, as part of construction works, dedicated crossing points and long-term access opportunities should be discussed with the landowner(s).
 - 6.1.3 The Proposed OHL Alignment furthermore 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 Forestry Industry Safety Accord FISA 804 "Electricity at Work: Forestry"11).
 - 6.1.4 The total loss of broadleaved woodland resulting from the proposed alignment is 0.19 ha.

7 Mitigation Opportunities

7.1 Woodland Mitigation Measures

7.1.1 No mitigation opportunities were identified.

7.2 Restructuring

7.2.1 Considering the mixed nature of the woodland, both in species and age, no restructuring will be required. The felling of the OC for the development will create new green edges, which will allow the landowner to work to in the future if that is desired.

7.3 Restocking

7.3.1 There will be no restocking obligation for the landowner as there is no felling outwith the OC.

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 CB1-1 and CB1-2. They detail the areas designated for clear felling, within the OC and forest design considerations.

Table 8.1: Woodland removal for Infrastructure, within OC

ltem	Woodland Type	Area (ha)
OC felling	Mixed broadleaves (70 m)	0.19
Total area		0.19

Table 8.2: Compensatory Planting

Item	Woodland Type	Area (ha)	
Compensatory Planting Area	Mixed broadleaves (70 m)	0.19	
Total area			

¹¹ Forest Industry Safety Accord (2020), FISA 804 Electricity at Work: Forestry. Available at: https://ukfisa.com/Safety/Safety-Guides/fisa-804



Table 8.3: Woodland Removal Impact of Infrastructure

Item	Area (ha)
Total Loss of Woodland Area	0.19
Total Compensatory Planting Area	0.19
Total Net Loss of Woodland Area	0.0

Table 8.4: Woodland removal for Management Felling, outwith OC

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

9 Compensatory Planting

- 9.1.1 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)¹². 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 Management 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 0.19 ha.
- 9.1.4 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 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.

¹² Forestry Commission Scotland (2009). Control of Woodland Removal Policy. Available at: https://www.forestry.gov.scot/publications/285-the-scottish-government-s-policy-on-control-of-woodland-removal/viewdocument/285



