

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

Appendix 12.1.64: Woodland Report Parcel 776, Glenlossie





# APPENDIX 12.1.64: Woodland Report Parcel 776, Glenlossie

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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 assesses the potential impacts of the Proposed Development on Woodland, Parcel 776, Glenlossie. 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 landholding property boundaries are identified in **Figure 12.1**.64a: **Parcel 776 Location Map.** This forest is found within a complex of forest areas around Loch Dallas in the Moray council area approximately 4.2 km south of Dallas (NJ 118122 478784). The forest consists mainly of productive non-native conifer.

# 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) 2002<sup>1</sup> and The Electricity Act 1989<sup>2</sup>. 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.

<sup>&</sup>lt;sup>1</sup> UK Gov (2002). The Electricity Safety, Quality and Continuity Regulations 2002. Available at: The Electricity Safety, Quality and Continuity Regulations 2002

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



- TRANSMISSION
  - 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 90 m in width is required throughout the commercial conifer woodland within Woodland Parcel 776 taking into account the requirements of the conductor blowout assessment. The OC is illustrated in Figure 12.1.64b: Parcel 776 Proposed Felling Requirement.

#### 3.2 Access Track Route Design

Temporary access tracks will be created within the OC.

#### 4 **Woodland Characteristics**

#### 4.1 Woodland Composition and Site Conditions

- 4.1.1 The woodland was surveyed in September 2024. The woodland in and around the OC consists of recent restock and mature plantation of mainly lodgepole pine and Sitka spruce with pockets of native broadleaves.
- The section of proposed OHL is moderately exposed to the Detailed Aspect Method of Scoring (DAMS) score is  $15^{3,4}$ .
- 4.1.3 The Ecological Site Classification (ESC)<sup>5</sup> identifies the site as having a cool, sheltered and wet climate. The soils have a slightly dry moisture status and very poor nutrient status
- The National Soil Map of Scotland<sup>6</sup> indicates, the predominant soil type within the affected areas consists of blanket peats. Soil conditions are extremely wet, and rooting is limited.
- 4.1.5 No environmental designations apply to this woodland parcel.
- 4.1.6 The landscape is characterised by the upland moorland and forestry of Moray.
- Recent felling has occurred in, and south of, the OC under a felling permission (FPA-6983). Restock has already 4.1.7 taken place with a mixture of Sitka spruce and Lodgepole pine. Small areas of broadleaves have been planted in tubes.

<sup>&</sup>lt;sup>3</sup> Forest Research (2025). Available at: <a href="http://www.forestdss.org.uk/geoforestdss/">http://www.forestdss.org.uk/geoforestdss/</a> <sup>4</sup> 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.

Forest Research Decision Support Tools. Ecological Site Classification. Available at: http://www.forestdss.org.uk/geoforestdss/

<sup>&</sup>lt;sup>6</sup> Scottish Government (2024). National soil map of Scotland. Available at: https://soils.environment.gov.scot/maps/soil-maps/national-soil-map-of-scotland/

- 4.18 The Proposed OHL Alignment consists of a section of OC between towers CB8-19 and CB8-22. Proposed tracks in this section are found within the OC.
- 4.1.9 There is no existing forest road infrastructure close to the OC. Recent felling has left the mature forest still within this ownership isolated from the road. The closest forest road suitable for haulage within the ownership is found approximately 700 meters south of the OC. On the ownership to the east (parcel 890) further infrastructure is found, this is a minimum of 430 m from the OC. Again, recent felling has left the OC, and potential management felling, isolated from infrastructure. Considering the likely felling necessary on the adjacent ownership to the east, works can potentially be combined.
- 4.1.10 Considering the quality and quantity of the material and the landform operations can be carried out by harvester / forwarder combinations.
- 4.1.11 Timber will be extracted to the east, heading towards onto the unclassified U109E. This is classed as an Agreed Route by the Timber Transport Forum<sup>7,8</sup>.

### 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: View of recent restock and remaining crop between CB8-22 and CB8-21 (NJ 119441 477475, looking west)



<sup>&</sup>lt;sup>7</sup> 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/">https://timbertransportforum.org.uk/agreed-routes-map/introduction-to-agreed-routes-map/</a>

<sup>&</sup>lt;sup>8</sup> Agreed Routes 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 assumed to be Agreed Routes unless covered by one of the other TTG classifications (e.g. Consultation Route).



Photo 2: View from northern edge looking south demonstrating difference in growth between flat ground north of OC and plantation further south (NJ 116745 475018, looking north)



Photo 3: Close-up of recent restock around CB8-20 (NJ 113714 477862, looking northeast)





#### 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), which is covered in more detail in the **Chapter 12: Forestry** in **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<sup>9</sup> for the implementation of the works required.
- 5.1.2 Considering the existing signs of instability along with the inherently unstable soils in and near the OC there is a high risk of further windblow as a result of the felling of the OC.

## 6 Woodland Management Impact

- 6.1.1 The felling of the OC will create significant brown edges in an unstable lodgepole pine crop. It is therefore recommended that felling is taken to windfirm edges. For this ownership that means removal of any forest areas that intersect with the OC. Where the OC coincides with recent restocks the newly planted trees will need to be removed. Considering the size of the trees this could be done manually to reduce environmental impacts.
- 6.1.2 The OC cuts through the northern section of the ownership leaving a management unit of approximately 10ha north of the OC. This constitutes a viable management unit but considering ground conditions productivity is expected to be low. Peat surveys will need to determine to what extent areas in and north of the OC should be restocked.
- 6.1.3 Deforestation in the OC will reduce the area of productive forestry.
- 6.1.4 The infrastructure built for this section of the OHL could provide a benefit to the landowner for future forest management as it could provide a second extraction route for the forest area in question. As part of construction works, dedicated crossing points and long-term access opportunities should be discussed with the landowner(s) to ensure future viability of the remaining forested area north of the OC.
- 6.1.5 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 forest Industry Safety Accord, FISA 804 "Electricity at Work: Forestry" 10).
- 6.1.6 The total loss of Native Broadleaved woodland resulting from the proposed alignment is 0 ha.

# 7 Mitigation Opportunities

#### 7.1 Woodland Mitigation Measures

7.1.1 Some areas of woodland might be candidate for deforestation under current guidance on management of afforested deep peat. This could potentially reduce the compensatory planting and / or restock requirements. Detailed peat depth surveys would be required to determine the extent of deep peat.

<sup>9</sup> Scottish Forestry (2024). UK Forestry Standard (UKFS). Available at: <a href="https://www.forestry.gov.scot/publications/sustainable-forestry/uk-forestry-standard-ukfs">https://www.forestry.gov.scot/publications/sustainable-forestry/uk-forestry-standard-ukfs</a>

<sup>(</sup>accessed 01/05/2025)

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

## 7.2 Restructuring

- 7.2.1 The section of forest within this ownership is split into two age categories; mature lodgepole pine and Sitka spruce / lodgepole pine restock. The felling will result in the mature pine needing restock, reducing the variability in forest structure. It is therefore expected the proposals will have a negative impact on forest structure in the ownership. Apart from adjacent within the ownership restocks will also be adjacent to restocks to the east of the ownership.
- 7.2.2 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. It is unlikely that this will benefit forest structure significantly as the area north of the Proposed OHL Alignment is relatively small and opportunities for species and age diversification are limited due to extremely poor and wet soils.

#### 7.3 Restocking

7.3.1 In case the management felling surrounding the OC takes place there will be a restock obligation on the landowner unless any areas are suitable for peatland restoration. If any areas are suitable for peatland restoration this could reduce the restock and / or compensatory planting obligation.

# 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 CB8-19 and CB8-22. It details 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.

Table 8.1: Woodland removal for Infrastructure, within OC

Item	Woodland Type	Area (ha)			
Operational corridor felling	Conifer Plantation (90 m)	5.88			
Total area 5.8					

Table 8.2: Compensatory Planting

ltem	Woodland Type	Area (ha)
Compensatory Planting Area	Conifer plantation	5.88
Total area		5.88

Table 8.3: Woodland Removal Impact of Infrastructure

Item	Area (ha)
Total Loss of Woodland Area	5.88
Total Compensatory Planting Area	5.88
Total Net Loss of Woodland Area	

Table 8.4: Woodland removal for Management Felling, outwith OC

ltem	Woodland Type	Area (ha)
Management Felling	Conifer plantation	19.15
Replanting / Restocking Opportunities	Conifer Plantation	19.15
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)<sup>11</sup>. 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 5.88 ha. This could potentially be reduced by deforesting areas of deep peat under current guidelines regarding management of afforested deep peats.
- 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 offsite compensatory planting within the same local authority area. It is proposed that full details of the areas subject to this offsite compensatory planting is notified to Scottish Forestry prior to energising the OHL.

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 $<sup>^{11}</sup> Forestry Commission Scotland (2009). Control of Woodland Removal Policy. Available at: \\ \underline{https://www.forestry.gov.scot/publications/285-the-scottish-governments-policy-on-control-of-woodland-removal/viewdocument/285}$ 



