Scottish & Southern Electricity Networks
TRANSMISSION

Beauly to Blackhillock to New Deer to Peterhead 400 kV Project

Environmental Impact Assessment Report

Volume 5 | Appendices

Appendix 12.1.109: Woodland Report Parcel 2060, Feithhill Farm

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Appendix Figures

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 2060, Feithhill Farm. 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 in order 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 12.1.109a: Parcel 2060 Location Map**. The forest is located approximately 13 km northeast from the town of Huntly (NJ 669181 425362) within the Aberdeenshire Council region.

2.1.2 The forest block at Feithhill Farm consists of a Scottish Forestry Grant Scheme (SFGS) scheme from the early 2000s and is found within a wider agricultural landscape.

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[1] and the Electricity Act 1989[2]. 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: Electricity Act 1989

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 90 m in width is required throughout the conifer forest and 70 m in width throughout the native woodland within Woodland Parcel 2060, taking into account the requirements of the conductor blowout assessment. The OC is illustrated in **Figure 12.1.109b: Parcel 2060 Proposed Felling Requirement**.

3.2 Access Track Route Design

3.2.1 The majority of the proposed access tracks in this section are located within the OC; however, an additional temporary track will be created across agricultural ground to facilitate access.

4 Woodland Characteristics

4.1 Woodland Composition and Site Conditions

4.1.1 The forest at Parcel 2060 was surveyed in November 2024. The woodland in and around the OC consists of single aged plantation from the early 2000's. The majority of the block was planted with Sitka spruce (SS), but the block furthermore contains significant areas of broadleaves along with Scots pine (SP) and Larch (LA) elements.

4.1.2 The forest plantation sits within a landscape characterised by farmed rolling ridges and hills. The surrounding land use is agricultural.

4.1.3 The forest plantation is moderately exposed with a maximum Detailed Aspect Method of Scoring (DAMS) of 15[3].

4.1.4 The National Soil Map of Scotland[4] indicates the dominant soil types within the site are humus-iron podsol soils.

4.1.5 The Ecological Site Classification (ESC)[5] identifies the site as having a cool, moderately exposed and moist climate. The soils have a slightly dry moisture status and very poor nutrient status.

4.1.6 No environmental designations apply to this parcel.

[3] Forest Research (2025). Available at: http://www.forestdss.org.uk/geoforestdss/
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.
[4] Scottish Government (2024). Available at: https://soils.environment.gov.scot/maps/soil-maps/national-soil-map-of-scotland/
[5] Ecological Site Classification. Available at: http://www.forestdss.org.uk/geoforestdss/

4.1.7 The proposed section of OHL consists of a section of OC between towers BN4-20 and BN4-23. The tracks proposed in this ownership are within the OC with the exception of a proposed temporary track in the northeastern corner of the block.

4.1.8 There is no forest road infrastructure in the block. The access track to the north of the block could potentially be used for haulage and if not, infrastructure will need to be built to facilitate forest operations. The closest forest road suitable for haulage within the ownership is the unclassified road to the west that leads to the B9001. This is classed as a Consultation Route by the Timber Transport Forum[6,7].

4.1.9 Considering the quality and quantity of the material and the landform, operations can be carried out by harvester / forwarder combinations.

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: Unthinned SS with a network of rides (NJ 666591 425611, looking southeast)

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

[7] 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).

Photo 2: SP and L showing signs of instability (NJ 669941 422112, looking southwest)

Photo 3: Mixed broadleaves amongst conifer plantation (NJ 670100 425421, looking southwest)

Photo 4: SS and L showing signs of instability (NJ 670591 425492, looking southeast)

Photo 5: SS and L showing signs of instability (NJ 668031 427081, 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 Forestry Chapter in **Section 12.4**. 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)[8] for the implementation of the works required.

5.1.2 Considering the unthinned nature and signs of instability in the crop it is highly likely that the creation of brown edges in the crop would result in windblow.

6 Woodland Management Impact

6.1.1 The impact on woodland management from a commercial perspective within this forest plantation as a result of the proposed operations is likely to be significant. The OC felling along with the proposed management felling constitutes just under half of the productive conifer area in the plantation. Although the crops are already showing signs of instability the OC felling and proposed management felling would be considered pre-mature felling and as such will negatively impact profitability of the block.

[8] Scottish Forestry (2024). Available online at: https://www.forestry.gov.scot/publications/sustainable-forestry/uk-forestry-standard-ukfs (accessed 01/05/2025)

6.1.2 In the long-term the proposed operations will reduce the productive area of forest as well as divide the plantation into smaller management units. The felling for the OC will create new green edges to which the landowner can work to in the future.

6.1.3 The infrastructure built for this section of the OHL could provide a benefit to the landowner for future management as it could provide long term access into the block which currently has limited access. As part of construction works, dedicated crossing points and long-term access opportunities should be discussed with the landowner and the adjacent landowner (Parcel 5232).

6.1.4 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 [9]FISA 804 "Electricity at Work: Forestry").

6.1.5 The total loss of Native Broadleaved woodland resulting from the proposed alignment is 1.05 ha.

7 Mitigation Opportunities

7.1 Woodland Mitigation Measures

7.1.1 The OC has been reduced to 70 m within the native broadleaved woodland.

7.2 Restructuring

7.2.1 The commercial forest plantation is currently single-aged and as such the OC felling along with the proposed management felling will lead to a diversification of forest structure as just under half of the forest would be felled with a large part restocked. However, if operations were not driven by the Proposed OHL Alignment stands would have likely been retained longer and smaller scale felling carried out leading to a wider age class spread in the long term. Considering the size of the plantation and even-aged nature it is unlikely structure will be an issue going forward.

7.2.2 The felling of the OC for the development will create new green edges to which the landowner can work to in the future. This will likely make it easier to diversify age class in the long-term.

7.3 Restocking

7.3.1 If management felling takes place there will be a restock obligation for the landowner.

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 BN4-20 and BN4-23 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.

Table 8.1: Woodland removal for Infrastructure, within OC.

Item	Woodland Type	Area (ha)
Operational Corridor Felling	Native Broadleaves (70 m)	1.05
Operational Corridor Felling	Mixed Conifer Plantation (90 m)	4.33
Total area		**5.38**

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

Table 8.2: Compensatory Planting

Item	Woodland Type	Area (ha)
Compensatory Planting Area	Native Broadleaves	1.05
Compensatory Planting Area	Mixed conifer plantation	4.33
Total area		**5.38**

Table 8.3: Woodland Removal Impact of Infrastructure

Item	Area (ha)
Total Loss of Woodland Area	5.38
Total Compensatory Planting Area	5.38
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	Mixed conifer plantation	13.64
Management Felling	Native Broadleaves	0.25
Replanting / Restocking Opportunities		13.89
Net Loss of Woodland Area		**0.0**

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)[10]. 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 licence 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 5.38 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 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.

[10] 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

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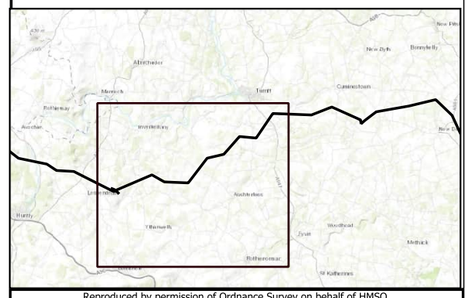
Legend

- Proposed Tower - 400 kV
- Proposed OHL Alignment - 400 kV
- Landownership Boundary/Parcel

Scale @ A3: 1:50,000

0 1000 2000 m



Project:
Beauly to Blackhillock to New Deer to Peterhead 400 kV OHL Project

Title:
Figure 12.1.109a Parcel 2060 Location Map

Drawn by: LA

366000 367000 368000

843000 842000 841000

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BN4-18 BN4-19 BN4-20 BN4-21 BN4-22 BN4-23 BN4-24 BN4-25

2060

Scale @ A3: 1:10,000

0 200 400 600 800 1000 m

Legend

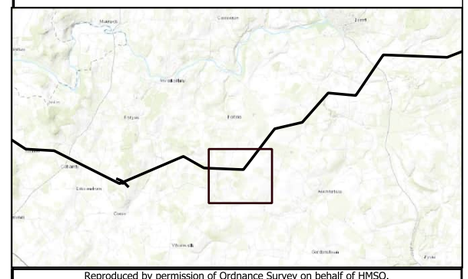
- Proposed Tower - 400 kV
- Proposed OHL Alignment - 400 kV
- Proposed Conductor Pulling Area (EPZ)
- 70m Operational Corridor - Broadleaved Woodland
- 90m Operational Corridor - Commercial Woodland
- Access Track 20m Buffer

Proposed Access Tracks

- Existing Access – Upgrade – Good/Fair Condition
- Proposed Access – ATV or Temporary Trackway
- Proposed Access – Permanent
- Proposed Access – Temporary

Proposed Felling Requirements

- Broadleaved Woodland Operational Corridor Felling
- Native Woodland Operational Corridor Felling
- Mixed Conifer Operational Corridor Felling
- Mixed Conifer Management Felling
- Native Woodland Management Felling
- Native Woodland Survey Scotland (NWSS)
- Landownership Boundary/Parcel



Project:
Beauly to Blackhillock to New Deer to Peterhead 400 kV OHL Project

Title: **Figure 12.1.109b** Parcel 2060 Proposed Felling Requirements

Drawn by: LA