

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

**Appendix 11.4 – Potential Mitigation:
Undergrounding of Existing 275 kV OHL at Daviot**



APPENDIX 11.4 – POTENTIAL MITIGATION: UNDERGROUNDING OF EXISTING 275 kV OHL AT DAVIOT

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Appendix Annexes

No Annexes accompany this Appendix

1 Introduction

- 1.1.1 This Appendix presents potential mitigation which is proposed to reduce the impacts to the Mains of Daviot Farm, ring cairn and stone circle 600 m NNE of (SM3085; S20) near Daviot in Highland. The potential mitigation would involve undergrounding of a section of the existing 275 kV OHL located to the north of the ring cairn and stone circle; see **Figure 11.4.1: Daviot Mitigation Environmental Constraints**. The tower to the immediate north of the ring cairn and stone circle, as well as the tower to the east and the tower to the west, would be removed. The next tower locations east and west would likely be replaced with Cable Sealing End (CSE) compounds and an underground cable laid between the two CSEs.
- 1.1.2 This mitigation would require separate planning consent for the CSE compounds and associated temporary and permanent access under the Town & Country Planning (Scotland) Act (1997) and therefore cannot be fully committed to until that consent is granted. However, the Applicant commits to developing the proposals, applying for consent and working with statutory consultees to facilitate consent being granted. The underground cable infrastructure would be installed under Permitted Development rights (The Town and Country Planning (General Permitted Development) (Scotland) Order 1992).
- 1.1.3 This Appendix provides indicative information on the CSEs and illustrates the section of existing 275 kV that is proposed to be placed underground. These works would likely be programmed to be undertaken after the Proposed Development has been constructed.

2 Infrastructure

2.1 Cable Sealing End Compounds

- 2.1.1 CSE compounds facilitate the transitions from underground cable to OHL (and vice versa). The plant required to facilitate the transition between underground cable and OHL is shown in **Plate 2.1**, and a photograph of a typical CSE compound is shown in **Plate 2.2**. Due to the hazards associated with live electricity, the compound is secured by installing fencing and gates around the perimeter. The compounds are anticipated to be approximately 48 m x 60 m for a 275 kV compound. A permanent access track would be required at each CSE compound.

Plate 2.1: Overhead Line to Cable Transition (diagram showing electrical equipment within the CSE compound)

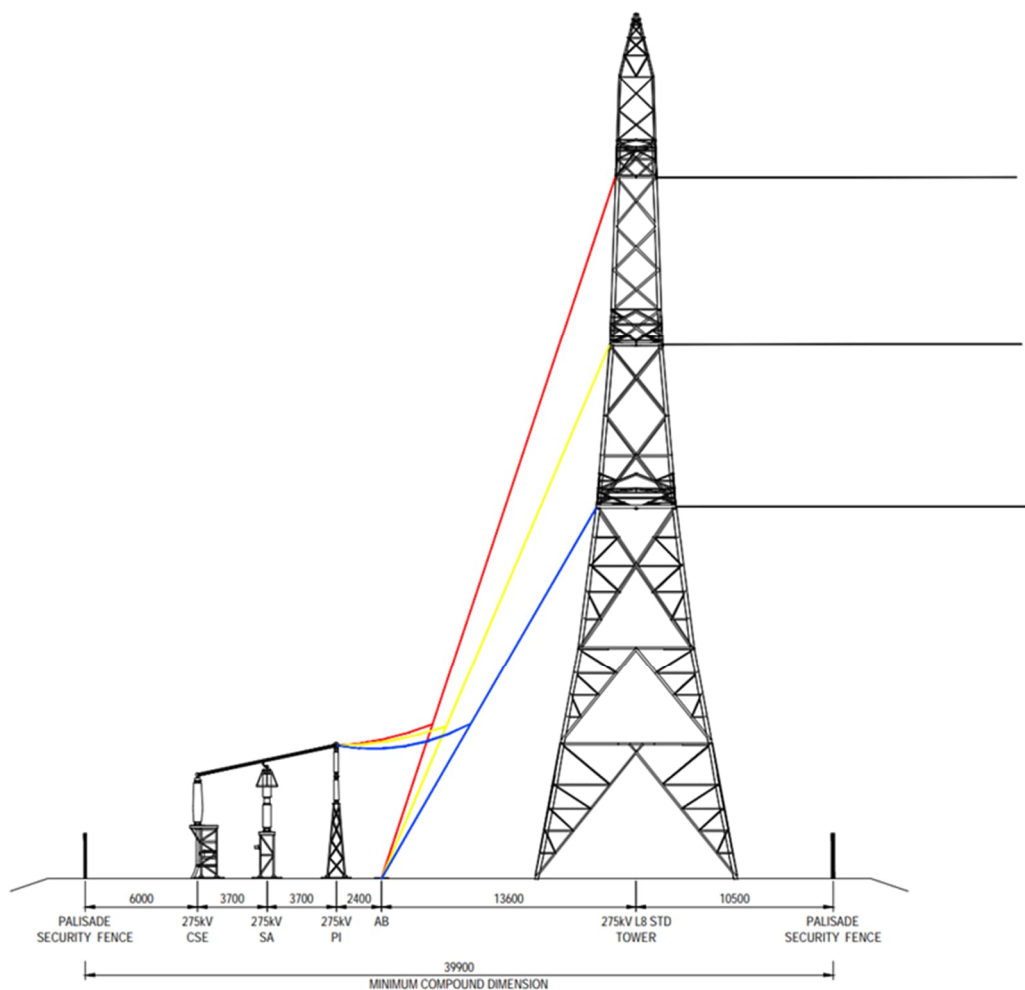


Plate 2.2: Example of a Cable Sealing End Compound



2.2 Underground cable

- 2.2.1 An underground cable would connect the two CSEs. The precise location of this cable will be determined through an optioneering exercise taking environmental, engineering and cost considerations into account.

3 Environmental Considerations

- 3.1.1 The section of OHL to be undergrounded and indicative CSE locations are illustrated in **Figure 11.4.1: Daviot Mitigation Environmental Constraints** which also presents key environmental constraints. **Table 3.1** provides further detail on the environmental constraints at this location. A 1 km buffer has been used for reporting local environmental constraints, and a 2 km buffer for reporting regional and national designations. The purpose of **Table 3.1** is to present information on the potential environmental constraints which have been identified in the vicinity of the section of OHL to be undergrounded and indicative CSE locations, and to inform their future design refinement so that environmentally sensitive areas can either be avoided or the design further developed to ensure that any potential effects of the work on the environment would be localised and therefore not significant.
- 3.1.2 Information outlining the potential environmental constraints has been reviewed from desk-based publicly available sources and baseline data collected for surveys undertaken for the EIA (where available). The following documents have been used to support this table:
- **Figure 10.8.1: Fluvial Flood Risk** (within **Volume 5, Appendix 10.8**)
 - **Figure 10.8.2: Surface Water Flood Risk** (within **Volume 5, Appendix 10.8**)
 - **Figure 11.4.2: Daviot Mitigation Environmental Constraints** (within **Volume 5, Appendix 11.4** (this Appendix))
 - **Figure 11.1: Designated Heritage Assets** (within **Volume 3: Figures**)
 - **Figure 11.2: Heritage Assets and the Limit of Deviation** (within **Volume 3: Figures**)
- 3.1.3 Indicative visualisations are also presented in **Figure 11.4.2: Mitigation Visualisation from Mains of Daviot Ring Cairn** (SM3085; S20) and **Figure 11.4.3: Mitigation Visualisation from Daviot Castle** (SM5486; S22).

Table 3.1 Environmental Constraints

Constraint	Description	Approximate distance from existing 275 kV OHL
Non designated heritage asset	Possible Log boat - Daviot	0.75 km
Non designated heritage asset	Mains of Daviot - gravel pit	200 m
Non designated heritage asset	Plantation Bank, Daviot	300 m
Non designated heritage asset	Daviot Cottage – farmstead	200 m
Non designated heritage asset	Daviot Cottage – well	100 m
Non designated heritage asset	Mains of Daltullich – gravel pits	650 m
Scheduled Monument	Daviot Castle	600 m
Scheduled Monument	Mains of Daviot Farm, ring cairn and stone circle 600 m NNE of Mains of Daviot	100 m
Scheduled Monument	Bogbain Wood, hut circle and field system 400 m SSW of Bogbain Farm	1.2 km
Scheduled Monument	Daltullich House, enclosure 245 m NE of Mains of Daltullich	1 km
Scheduled Monument	Dun Davie, fort	1.7 km

Constraint	Description	Approximate distance from existing 275 kV OHL
Scheduled Monument	An Bathach, promontory fort 300 m ENE of Daviot	1.5 km
Listed Buildings	Daltullich House	700 m
Listed Buildings	Mains of Daviot Farm	500 m
Listed Buildings	House of Daviot	650 m
Listed Buildings	Bogbain Farmhouse	1.5 km
Listed Buildings	Church of Scotland Manse, Daviot	1.4 km
Listed Buildings	Davot Parish Church (Church of Scotland) and Burial Ground, Daviot	1.5 km
Conservation Area	Culloden Muir	1.9 km
NatureScot Priority Peatland Habitat – Class 2	N/A	1.1 km
Ancient Woodland of Semi-Natural Origin	There are 2 areas of Ancient Woodland of Semi-Natural Origin within the 1 km buffer	270 m, 850 m
Private Water Supply Source	There are 2 private water sources within the 1 km buffer	700 m, 900 m
Surface Water Flooding	The proposed location for the Underground Cable Section for 275 kV Line runs across several areas with medium likelihood of surface water flooding.	
Fluvial Flooding	There is a water course with high likelihood of fluvial flooding located approximately 200 m from the proposed location for the Underground Cable Section for 275 kV Line.	