

Netherton Hub 400 kV OHL Connection to New Deer and Peterhead: Tie-In

Environmental Appraisal Report

Volume 1 Chapter 1: Introduction

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1. INTRODUCTION

1.1 Background

- 1.1.1 Scottish Hydro Electric Transmission plc ('the Applicant'), operating and known as Scottish and Southern Electricity Networks Transmission ('SSEN Transmission'), owns, operates, develops and maintains the electricity transmission network across the north of Scotland and islands and holds a licence under Section 9 of the Electricity Act 1989¹ to 'develop and maintain an efficient, co-ordinated and economical electricity transmission system in its licensed area'.
- 1.1.2 Significant volumes of new renewable generation are expected to connect to the SSEN Transmission network, resulting in much greater bulk power transfer requirements on all major SSEN Transmission boundaries. A strategic hub at Peterhead is required for the purpose of establishing a common and coordinated approach to development for the future network reinforcements as identified in the Holistic Network Design to meet the UK's 2030 net zero targets. This holistic approach to project planning and development was considered necessary to maximise the potential efficiencies which comes from a single coordinated and collocated development site for both Alternating Current (AC) and Direct Current (DC) transmission infrastructure in the region. This collective development will substantially strengthen the local transmission network and support new onshore and offshore connections, such as those created through the Scotwind offshore lease rounds. Furthermore, it will help facilitate the export of future renewable generation from the North of Scotland to demand centres throughout the UK.
- 1.1.3 The diversion of the existing New Deer to Peterhead 400 kV OHL into a 400 kV AC substation (the 'Netherton Hub') is required to integrate the new substation site into the existing network and maximise the transfer capability between the new Hub substation and the wider transmission network to increase network security.
- 1.1.4 This Environmental Appraisal Report (EAR) accompanies the Applicant's application for consent under Section 37 of the Electricity Act 1989 and deemed planning permission in terms of section 57(2) of the Town and Country Planning (Scotland) Act 1997² to construct, install and operate a permanent diversion. This diversion, otherwise known as the 'Tie-In', (hereafter known as the 'Proposed Development') is intended to replace part of the existing New Deer to Peterhead 400 kV Overhead Line (OHL) by creating a diversion into the Netherton Hub. Currently under construction, the Netherton Hub forms part of a separate consent.
- 1.1.5 In addition to the works outlined above, deemed planning permission will also be sought under section 57(2) of the Town and Country Planning (Scotland) Act 1997 for ancillary works (including the removal of a section of the existing OHL and the formation of access tracks). Further details on the planning strategy for the Proposed Development are provided in **Chapter 3: Planning Context (Volume 1)** of this EAR.
- 1.1.6 The Proposed Development is separated into the following components:
- The 'In' leg: Diversion of the existing 400 kV overhead line (OHL) from a point approximately 8.6 kilometres (km) west of the Peterhead Substation into Netherton Hub via a new 400 kV OHL, approximately 3.3 km in length;
 - The 'Out' leg: Connection from Netherton Hub back out to a point on the existing OHL approximately 5.0 km west of Peterhead Substation via a new 400 kV OHL, approximately 2.0 km in length;

¹ UK Government (1989). The Electricity Act 1989. Available at: <https://www.legislation.gov.uk/ukpga/1989/29/content>

² UK Government (1997). Town and Country Planning (Scotland) Act 1997. Available at: <https://www.legislation.gov.uk/ukpga/1997/8/contents>

- 18 new steel lattice towers between 40 m and 70 m of height;
- Associated access tracks, bellmouths, tower compounds and laydown areas (including crane pads, piling pad, tele pads);
- Removal of approximately 3.7 km of existing OHL between the diversion points into and out of Netherton Hub and removal of 12 redundant towers;
- Installation of a temporary OHL circuit to facilitate the transfer of the connection between the existing OHL and Netherton Hub;
- Public road improvements to facilitate construction traffic;
- Vegetation clearance and management;
- Removal of temporary works and site reinstatement; and
- A Limit of Deviation (LoD), defined in **Chapter 2: Description of Proposed Development (Volume 1)**.

1.1.7 **Figure 1.1: Site Location Plan (Volume 2)** shows the location of the Proposed Development which is described in further detail in **Section 1.4**.

1.1.8 A second proposed connection considered in parallel to the Proposed Development has been designed and comprises a connection from the Tie-In point of the 'Out' leg, back to the existing Peterhead Substation, referred to as the Netherton Hub 400 kV OHL Connection to New Deer and Peterhead: Rebuild (hereafter referred to as 'the Rebuild'). The Rebuild does not form part of this EAR and will be delivered via a separate Section 37 application.

1.2 Purpose of the EAR

1.2.1 To ensure compliance with the terms of the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (the 'EIA Regulations'), the Applicant submitted a request for an Environmental Impact Assessment (EIA) Screening Opinion, presented in **Appendix 1.1**, to the Scottish Government Energy Consents Unit (ECU) in April 2025. An EIA Screening Opinion, **Appendix 1.2**, was adopted by the ECU in July 2025, which determined that the Proposed Development does not constitute EIA development in terms of the EIA Regulations, but outlined environmental topics which should be considered further as part of the Section 37 application.

1.2.2 The Applicant is therefore submitting a voluntary EAR which evaluates whether any specific environmental effects are likely to occur as a result of the Proposed Development.

1.3 Structure of the EAR

1.3.1 Further details on the Proposed Development are presented in **Chapter 2: Description of the Proposed Development (Volume 1)** whilst the planning regime under which the Proposed Development will be consented is outlined in **Chapter 3: Planning Content (Volume 1)**.

1.3.2 The approach followed in this EAR is to identify the topics which require a level of appraisal to determine the potential for likely direct and indirect environmental effects. This is achieved through a scoping exercise presented in **Chapter 4: Approach to Appraisal (Volume 1)** that takes into consideration potential sensitive receptors and the nature of the construction and operation of the Proposed Development.

1.3.3 **Chapters 5–12 (Volume 1)** of this EAR present the topic chapters which have been scoped in for appraisal, and **Chapter 13: Summary of Mitigation Measures (Volume 1)** collates the mitigation measures recommended in each of the topic chapters. Construction mitigation measures presented in **Chapter 13** will be taken forward for inclusion in the site-specific Construction Environmental Management Plan (CEMP).

1.4 Site Location

- 1.4.1 Situated within the Aberdeenshire Council local authority area, the Proposed Development is located within a rural area west of the settlement of Peterhead, and passes through the locality of Nether Kinmundy. The location of the Proposed Development is shown on **Figure 1.1: Site Location Plan (Volume 2)**.
- 1.4.2 The midpoint of the 'In' leg of the Proposed Development has the National Grid Reference NK 04044 44606 and, at its furthest point from the Netherton Hub, is approximately 7.5 km south west of Peterhead. The midpoint of the 'Out' leg has the National Grid Reference NK 06867 43865, and is approximately 3.9 km south west of Peterhead. South of the Proposed Development lies the existing OHL which passes through Nether Kinmundy from New Deer in a south east direction toward Peterhead.
- 1.4.3 As shown in **Figure 1.2: Site Layout Plan (Volume 2)**, the 'Site' of the Proposed Development comprises the proposed location of the new OHL, the existing OHL and towers to be dismantled, and the LoD. The LoD comprises an area which defines the practical limits within which micro-siting of the overhead line infrastructure can be sited and construction can be undertaken within the terms of the Section 37 consent. The LoD is further defined in **Chapter 2: Description of the Proposed Development (Volume 1)**.

1.5 Site and Environmental Context

- 1.5.1 Both the 'In' and 'Out' legs of the proposed OHL alignment are located in a rural area comprising predominantly agricultural land, with approximately twenty properties interspersed throughout the Site and surrounding area. A section of Native Woodland is located in the south east of the Site, approximately 100 m from one of the temporary towers that forms part of the Proposed Development. There is also one area of Class 1 peatland (nationally important carbon-rich soils, deep peat and priority peatland habitat) at the location of one of the proposed access tracks and one of the dismantled towers.
- 1.5.2 According to the National Landscape Character Assessment conducted by NatureScot³, this area of Aberdeenshire sits in a Coastal Agricultural Plain, characterised by gently undulating landform and typically comprising low-lying exposed farmland. This Landscape Character Type is also identifiable by the presence of electricity transmission lines and other development.
- 1.5.3 The Site is not located within any statutory or non-statutory designated sites. For further context, **Figure 1.3: Environmental Constraints Plan (Volume 2)** illustrates the statutory and non-statutory designations and other environmental features located within 2 km of the Site.
- 1.5.4 The following designated sites are located within 2 km of the Site:
- Hill of Longhaven Site of Special Scientific Interest (SSSI), approximately 1.75 km south east of the Site;
 - Easterton of Lenabo Airship Station Scheduled Monument (SM13679), approximately 0.9 km south west of the Site;
 - Ten Listed Buildings in Longside including Category A Old Parish Church of Longside, located approximately 1.9 km to the north of the Site;
 - Listed Building Blackhill House (LB16395), approximately 1.6 km south east of the Site; and

³ Nature Scot (2019). SNH National Landscape Character Assessment: Landscape Character Type 17 Coastal Agricultural Plain – Aberdeenshire. Available (online): [LCT 017 - Coastal Agricultural Plain - Aberdeenshire - Final pdf.pdf](#)

- There are no World Heritage Sites, National Parks, National Scenic Areas, Special Protection Areas, Special Areas of Conservation nor Important Bird Areas within 2 km.

1.5.5 International ecological and ornithological designations within 10 km of the Site include the following:

- Buchan Ness to Collieston Coast Special Protection Area, approximately 5.5 km east of the Site;
- Buchan Ness to Collieston Special Area of Conservation, approximately 6 km south east of the Site; and
- Buchan Ness to Collieston Important Bird Area, approximately 6 km south east of the Site.