

TRANSMISSION

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1. INTRODUCTION AND BACKGROUND

1.1 Overview

- 1.1.1 This Environmental Impact Assessment Report ("EIA Report") has been prepared by WSP UK Limited (hereafter referred to as WSP) on behalf of Scottish Hydro Electric Transmission plc ("the Applicant") who, operating and known as Scottish and Southern Electricity Networks Transmission ("SSEN Transmission"), own, operate and develop the high voltage electricity transmission system in the north of Scotland and remote islands. In this EIA Report the Applicant and SSEN Transmission are used interchangeably unless the context requires otherwise. The EIA Report has been prepared to accompany an application for consent under the Town and Country Planning (Scotland) Act 1997 (as amended) ("the 1997 Act")¹.
- 1.1.2 The Applicant is seeking planning permission in principle under the 1997 Act for consent to construct and operate a new strategic transmission hub approximately 7.5 km to the west of Peterhead in Aberdeenshire, Scotland. The project is referred to and described as the Netherton Hub (and hereafter also referred to interchangeably as "the Proposed Development").
- 1.1.3 The location of the Proposed Development is shown on **Volume 3, Figure 1.1: Location Plan**. The key components of the Proposed Development would be:
 - 400 kV Substation;
 - 132 kV Substation;
 - High Voltage Direct Current (HVDC) Switching Station;
 - Spittal to Peterhead HVDC Converter Station;
 - Eastern Green Link 3 HVDC Converter Station; and
 - Operations Depot and Spares Buildings.
- 1.1.4 The Proposed Development would also include the following ancillary works: site clearance, temporary construction compounds and laydown areas, earthworks (including landscaping), permanent access from the public road network and relevant public road improvements, formation of internal access roads, underground cables connecting the components on the Site, drainage, permanent water supply, lighting, security fencing, biodiversity enhancement measures and the demolition of existing buildings within the Site.
- 1.1.5 The Proposed Development is set out in further detail in **Volume 2, Chapter 3: Description of the Proposed Development**.
- 1.1.6 An Environmental Impact Assessment ("EIA") has been undertaken for the Proposed Development in accordance with the Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017 ("the EIA Regulations")² to assess the likely significant effects of the Proposed Development. The findings of the EIA are presented in this EIA Report, including the measures which would be taken to prevent, reduce and, where possible, offset predicted likely significant adverse effects.

1.2 Background

1.2.1 The Applicant owns and maintains the electricity transmission network across the north of Scotland and holds a transmission licence under Section 6(1)(b) of the Electricity Act 1989 ("the 1989 Act")³. The Applicant has a statutory duty under Section 9(2) of the 1989 Act to develop and maintain an efficient, co-ordinated, and economical system of electrical transmission, and a separate duty to facilitate competition between current and new generators of electricity. Where there is a requirement to extend, upgrade or reinforce its transmission network, the Applicant's aim is to achieve

¹ Town and Country Planning (Scotland) Act 1997. [Online] Available at: https://www.legislation.gov.uk/ukpga/1997/8/section/46 [Accessed: February 2024].

² Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017. [Online] Available at:

https://www.legislation.gov.uk/ssi/2017/102/contents/made [Accessed :February 2024].

³ Electricity Act 1989. [Online] Available at: https://www.legislation.gov.uk/ukpga/1989/29/contents [Accessed: February 2024].



an environmentally aware, technically feasible and economically viable option which would cause the least disturbance to the environment and the people who use the area.

- 1.2.2 The United Kingdom (UK) Government launched the offshore transmission network review (OTNR) in 2020 to ensure that the transmission connections for offshore wind generation are delivered in the most appropriate way, and to find the appropriate balance between environmental, social and economic costs⁴. The National Grid, the electricity system operator (ESO) published the Holistic Network Design (HND) Report in July 2022⁵ providing detail on a recommended approach for connecting offshore wind farms, including the associated offshore and onshore transmission network requirements.
- 1.2.3 By 2030, both the UK and Scottish governments are targeting a big expansion in offshore wind generation of 50 GW and 11 GW respectively. The Scottish Government has also set ambitious targets for an additional 12 GW of onshore wind by 2030. Across Great Britain, including the north of Scotland, there needs to be a significant increase in the capacity of the onshore electricity transmission infrastructure to deliver these 2030 targets and a pathway to net zero.
- 1.2.4 As a result, SSEN Transmission has analysed the needs case and system planning requirements for the Proposed Development to ensure the approach for upgrading the transmission network delivers the best sustainable long-term solutions. A more detailed explanation of need for the Proposed Development is set out in Volume 2, Chapter 2: Proposed Development Need.
- 1.2.5 As part of that process, SSEN Transmission has undertaken studies during the various stages of identifying the site options and the proposed design solution for the electricity transmission project that involved consideration of environmental, technical and economic factors. This work was carried out prior to selecting a Proposed Site and finalising the design solution for the Proposed Development. Consultation has been undertaken during all stages of the site selection process to seek comments from stakeholders, including members of the public, on the options put forward prior to finalising the design of the Proposed Development as described in this EIA Report. Further detail on the site selection stages of the project is contained within Volume 2, Chapter 4: Site Selection Process and Alternatives.

1.3 Legislative and Statutory Context

- 1.3.1 Planning permission in principle for the project is sought from Aberdeenshire Council under the 1997 Act.
- 1.3.2 The Applicant, as a transmission licence holder under the 1989 Act has a statutory duty under paragraph 3 of Schedule 9 to the 1989 Act when formulating relevant proposals to:
 - "have regard to the desirability of preserving natural beauty, of conserving flora, fauna and geological or physiographical features of special interest and of protecting sites, buildings and objects of architectural, historic or archaeological interest"; and
 - "do what [it] reasonably can to mitigate any effect which the proposals would have on the natural beauty of the countryside or on any such flora, fauna, features, sites, buildings or objects".
- 1.3.3 The requirement to undertake an EIA for EIA developments is set out in the EIA Regulations. This is discussed further in **Section 1.4** of this chapter.

1.4 The need for EIA

1.4.1 The EIA Regulations contain two schedules. Schedule 1 lists projects where EIA is mandatory. Schedule 2 identifies projects where EIA may be required where a project listed on that Schedule is *"likely to have significant effects on the environment by virtue of factors such as its nature, size or location"*.

⁴ UK Government. Offshore transmission network review. Available at: https://www.gov.uk/government/groups/offshore-transmission-network-review [Accessed: August 2024].

⁵ National Grid Electrical System Operator (ESO), 2022. Pathway to 2030 – A holistic network design to support offshore wind deployment for net zero. [Online] Available at: https://www.nationalgrideso.com/document/262676/download [Accessed: August 2024].



- 1.4.2 The Proposed Development is not covered under the developments listed within Schedule 1 to the EIA Regulations. The Proposed Development is also not directly identified within Schedule 2 to the EIA Regulations; however, the Applicant has decided to undertake an EIA for the Proposed Development given its size and nature, and its close association with other SSEN Transmission network projects, including the Beauly to Blackhillock to New Deer to Peterhead 400 kV Overhead Line (OHL), Netherton/Peterhead 400 kV OHL Diversion and Repurposing⁶, Spittal to Peterhead HVDC Underground Cable (UGC) and Eastern Green Link 3 HVDC UGC.
- 1.4.3 A request for a Scoping Opinion was made to the Aberdeenshire Council under the EIA Regulations in October 2023. A Scoping Report was submitted to support the request, which sought input from statutory and non-statutory consultees regarding the information to be provided within this EIA Report.
- 1.4.4 The Scoping Opinion of Aberdeenshire Council was issued in December 2023 confirming the scope of the EIA Report. Further details are contained in **Volume 2, Chapter 6: Scope and Consultation**, and associated appendices.

1.5 EIA Report Structure

- 1.5.1 This EIA Report contains the environmental information required by the EIA Regulations and comprises a number of volumes as detailed below:
 - Volume 1: Non-Technical Summary (NTS);
 - Volume 2: EIA Report;
 - Volume 3: Figures;
 - Volume 4: Technical Appendices; and
 - Volume 5: Confidential Technical Appendices.
- 1.5.2 **Volume 1** includes a standalone NTS which describes the Proposed Development and the likely significant effects predicted in a concise, non-technical manner.
- 1.5.3 **Volume 2** of the EIA Report sets out the following information:
 - Chapter 1: Introduction and Background;
 - Chapter 2: Proposed Development Need;
 - Chapter 3: Description of the Proposed Development;
 - Chapter 4: Site Selection Process and Alternatives;
 - Chapter 5: EIA Process and Methodology;
 - Chapter 6: Scope and Consultation;
 - Chapter 7: Planning and Energy Policy Context;
 - Chapters 8 to 14: technical topic chapters that include an assessment of the likely significant effects of the Proposed Development on receptors of relevance to each of the topic-based assessments, a description of the proposed mitigation measures, and confirmation of the predicted residual effects. A consideration of in-combination cumulative effects is also discussed where relevant;
 - Chapter 15: Cumulative Effects (Effect Interactions) an assessment of effect interaction cumulative effects;
 - Chapter 16: Summary of Effects; and
 - Chapter 17: Schedule of Environmental Mitigation.

⁶ The full title of this project is the 'diversion of existing VND1/VND2 400 kV OHL into Netherton 400 kV substation and repurposing of the existing 400 kV OHL between Netherton and Peterhead 400 kV substation', however, for the purpose of this report it is referred to throughout as the 'Netherton/Peterhead 400 kV OHL Diversion and Repurposing'.



- 1.5.4 **Volume 3** contains supporting figures referred to in Volume 2 of the EIA Report. It also comprises photomontage visualisations of the Proposed Development from a series of viewpoints that have been agreed with Aberdeenshire Council and NatureScot in accordance with the requirements of the Scoping Opinion.
- 1.5.5 **Volume 4** comprises supporting appendices for **Volume 2** of the EIA Report. Appendices include further detailed reporting or information to support the EIA Report and technical assessments contained therein.
- 1.5.6 **Volume 5** comprises the confidential information supporting appendices for **Volume 2** of the EIA Report. Certain environmental information is exempt from disclosure if the information would, or is likely to, prejudice the protection of the environment to which the information relates.

1.6 Supporting Documents

- 1.6.1 A Planning Statement is also included with the application as supporting information and in accordance with the request of Aberdeenshire Council in its scoping response. The Planning Statement considers the compatibility of the Proposed Development in the context of existing and emerging development plan and national energy and planning policies. Volume 2, Chapter 7: Planning and Energy Policy Context provides an overview of the relevant planning and energy policy context for the Proposed Development and the separate Planning Statement contains an assessment in respect of the Proposed Development against relevant planning policy.
- 1.6.2 Other reports, drawings and documents that will be submitted as part of the planning application will include:
 - a series of technical design drawings; and
 - Pre-application Consultation Report.

1.7 EIA Quality

1.7.1 In accordance with Regulation 5(5) of the EIA Regulations, by appointing WSP to co-ordinate the EIA Report for the Proposed Development, SSEN Transmission has ensured that the EIA Report has been prepared by competent experts. The EIA Report has been compiled and approved by professional EIA practitioners at WSP and Wood Engineering, holding relevant undergraduate and post-graduate degrees, and membership of the Institute of Environmental Management and Assessment (IEMA). The EIA Report meets the requirements of the IEMA EIA Quality Mark scheme. This is a voluntary scheme operated by IEMA that allows organisations to make a commitment to excellence in EIA and to have this commitment independently reviewed on an annual basis. In addition, SSEN Transmission and WSP can confirm that each of the topic-based impact assessment chapters has been prepared by competent experts, with the details being provided in Volume 4, Technical Appendix 1.1: EIA Team.

1.8 IEMA Quality Mark

- 1.8.1 As with environmental assessment, good practice in the preparation of the EIA Report is defined in a number of sources, with more specific issues covered by EIA Report review checklists. Many of these checklists are very detailed and go to some length. In terms of widely applicable and practical guidance, the IEMA Quality Mark scheme provides best practice review criteria against which all EIA reports are evaluated. Volume 4, Technical Appendix 1.2: IEMA Quality Mark reproduces the IEMA Quality Mark EIA Report Review Criteria, along with a description of how these indicators have been met by this EIA Report.
- 1.8.2 Best practice guidance as set out within the IEMA Quality Mark scheme requires identification of key limitations affecting the EIA process and the resultant EIA Report. Limitations in methods are identified and discussed particularly where this is likely to affect the outcomes of the assessment. As with any environmental assessment, there will be elements of uncertainty. Where relevant these are identified and reported, together with a statement on any implications on the assessment and conclusions.



1.9 Notifications

- 1.9.1 In accordance with Regulation 21 of the EIA Regulations, the application and this EIA Report will be advertised on the application web site, in the Edinburgh Gazette and in the Press and Journal.
- 1.9.2 Notice of the application for planning permission in principle, including this EIA Report and associated documents and figures, will be available for viewing at the following public location during normal opening hours:
 - Aberdeenshire Council, Buchan House, St Peter Street, Peterhead, AB42 1QF.
- 1.9.3 Electronic versions of the application, including this EIA are available to view and comment on via the Aberdeenshire online portal: https://upa.aberdeenshire.gov.uk/online-applications/search.do?action=simple&searchType=Application
- 1.9.4 Notice of the application, and details of the Proposed Development, are available on SSEN Transmission's website: https://www.ssen-transmission.co.uk/projects/project-map/netherton-hub/
- 1.9.5 This EIA Report is available in other formats if required. For details, including costs, contact:

Roy Ferguson Senior Consents and Environment Manager SSEN Transmission, 200 Dunkeld Road, Perth, PH1 3GH Email: nethertonengagement@sse.com

1.9.6 Any representations should be made via the Aberdeenshire Council online portal provided above.