Scottish & Southern Electricity Networks

Fanellan Hub 400 kV Substation and Converter Station Environmental Impact Assessment Report

Volume 2 | EIA Report

Chapter 1 – Introduction and Background

February 2025

CONTENTS

OTHER VOLUMES

1. INTRODUCTION & BACKGROUND

1.1 Overview

1.1.1 This Environmental Impact Assessment Report ("EIA Report") has been prepared by 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 planning permission under Town and Country Planning (Scotland) Act 1997 (as amended) ("the 1997 Act")[1].

1.1.2 The Applicant is seeking full planning permission under the 1997 Act to construct and operate a new strategic transmission hub at Fanellan, to the south-west of Beauly within The Highland Council (THC) local authority area. The electricity transmission project is described as the "Fanellan Hub" (and hereafter also referred to interchangeably as "the Proposed Development").

1.1.3 The location of the proposed development is shown in Figure 1.1 Location Plan. The key components and physical characteristics of the Proposed Development are a new 400 kV substation and a new HVDC converter station. The Proposed Development would also include the following ancillary works: site clearance including demolition of relevant buildings, temporary construction compounds and laydown areas, earthworks (including landscaping), permanent and temporary access from the public road network including new permanent and temporary bellmouths, 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 within the Site. Full details on all components and construction activities can be found in **Volume 2: Chapter 3 – Description of the Proposed Development**.

1.1.4 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, mitigate predicted likely significant adverse effects.

1.1.5 Associated works for which separate consent would be sought by the Applicant under section 37 of the Electricity Act 1989 includes both a temporary and permanent diversion of the Beauly-Denny Overhead Line (OHL)[3]. In addition, the replacement of the existing Black Bridge structure across the River Beauly is required to facilitate access for construction vehicles and plant deliveries. Where necessary, this will be the subject of a separate application to The Highland Council under the 1997 Act.

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 1989 Act. In terms of section 9(2) of the 1989 Act, the Applicant has a statutory duty 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 an environmentally aware, technically feasible and economically viable option which, on balance, would cause the least disturbance to the environment and the people who use the area.

1 Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017. Available at: https://www.legislation.gov.uk/ssi/2017/102/contents/made [Accessed: June 2024].

2 Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017. Available at: https://www.legislation.gov.uk/ssi/2017/102/contents/made [Accessed June 2024].

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

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 costs[4]. The National Grid, the electricity system operator (ESO), published the Pathway to 2030 Holistic Network Design (HND) Report in July 2022[5] 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.[6] 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 project to ensure the approach for upgrading the transmission network results in the best sustainable long-term solution. A more detailed explanation of project need is set out in **Volume 2, Chapter 2 - Project 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 commenced 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 and throughout early-stage design as part of Pre-Application Consultations 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 Full detailed planning permission for the Proposed Development is sought from The Highland 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 of 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 and Scope

1.4.1 The "EIA Regulations", contain two schedules. Schedule 1 lists projects where EIA is mandatory. Schedule 2 identified 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: April 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: March 2024].

6 Scottish Government (2023). Renewable Electricity capacity by 2030: EIR release. Available at: https://www.gov.scot/publications/foi-202300354295/ [Accessed June 2024].

1.4.2 Whilst the Proposed Development does not automatically trigger the requirement for an EIA Report, the Applicant has elected to treat the Proposed Development as EIA Development (in terms of Regulation 6(2) (c). The EIA Report provides environmental information in accordance with Schedule 4 of the EIA Regulations.

1.4.3 A request for a Scoping Opinion was made to The Highland Council under the EIA Regulations in June 2024. 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 Environmental Impact Assessment Report (EIA Report).

1.4.4 The Scoping Opinion of The Highland Council was issued on 6th August 2024 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 The EIA Report contains the environmental information required by the EIA Regulations and consists of the following volumes as detailed below:

- **Volume 1** – Non-Technical Summary
- **Volume 2** – Environmental Impact Assessment Report
- **Volume 3** – Figures
- **Volume 4** – Technical Appendices
- **Volume 5** – Confidential Technical Appendices

1.5.2 **Volume 1** includes a Non-Technical Summary (NTS) which describes the project, and the likely significant effects predicted in a concise, non-technical manner.

1.5.3 **Volume 2** includes a series of technical topic-based chapters that each include an assessment of the likely significant effects of the Proposed Development on the particular receptors of relevance to each of the topic-based assessments, a description of the proposed mitigation measures relevant to those assessments, and confirmation of the predicted residual effects. The consideration of cumulative effects is also discussed within Chapter 17 of Volume 2. **Volume 2** of the EIA Report (this document) contains the following chapters:

- 1: Introduction and Background;
- 2: Project Need and Strategy;
- 3: Description of the Proposed Development;
- 4: The Site Selection Process and Alternatives;
- 5: EIA Process and Methodology;
- 6: Scope and Consultation;
- 7: Planning and Energy Policy;
- 8: Landscape Character and Visual Amenity;
- 9: Ecology;
- 10: Ornithology;
- 11: Archaeology and Cultural Heritage;
- 12: Traffic and Transport;
- 13: Hydrology, Hydrogeology, Geology and Soils;
- 14: Noise and Vibration;
- 15: Forestry;
- 16: Socio-Economics, Tourism and Recreation;
- 17: Cumulative Effects (Effect Interactions) - includes an assessment of effect interaction cumulative effects;
- 18: Summary of Effects; and

- 19: Schedule of Environmental Mitigation.

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 The Highland Council and NatureScot in accordance with the requirements of the Scoping Opinion.

1.5.5 **Volume 4** comprises supporting appendices to Volume 2 of the EIA Report. Appendices provide further detailed reporting or information to support the EIA Report and technical assessments contained therein and include, but are not limited to, the following:

- *Scoping Report*
- *Scoping Opinion*
- *Scoping Opinion matrix*
- *General Environmental Management Plans (GEMP)*
- *Species Protection Plans (SPP)*
- *Construction Environnmental Management Plan (CEMP)*
- *Review of Black Bridge Works*
- *LVIA Methodology*
- *Landscape Sensitivity*
- *Outline Landscape and Habitat Management Plan*
- *Landscape Effects*
- *Visual Effects*
- *Colour Assessment*
- *Habitats Baseline*
- *Protected Species Baseline*
- *Ornithology Baseline*
- *Cultural Heritage Background and Gazetteer*
- *Cultural Heritage Assessment*
- *Framework Construction Traffic Management Plan*
- *Transportation Assessment*
- *Noise Policy and Guidance*
- *Glossary of Acoustic Terms*
- *Construction noise levels*
- *HVDC noise levels*
- *Construction noise assessment*
- *Traffic noise assessment*
- *Source noise levels*
- *Noise contour maps*
- *Noise calibration certificates*
- *Forestry survey methodology*
- *Tree Survey Schedule*
- *Tree Removal Protection Plan*
- *Outline Arboriculture Method Statement*
- *Socio-Economic Policy Review*
- *Drainage Philosophy*
- *Drainage Impact Assessment*
- *Drainage Strategy Report*

- *Flood Risk Assessment*
- *Ground Investigation Report*
- *Earthworks Strategy*
- *Site Selection Consultation Document: Beauly Area 400 kV Substation and Western Isles HVDC Converter*

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. 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 1, 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:

- Habitat Regulations Assessment (HRA) Screening Report;
- Design and Access Statement;
- a series of technical design drawings; and
- Pre-application Consultation Report.
- Compensatory Planting Management Plan

1.7 EIA Quality

1.7.1 In accordance with Regulation 5(5) of the EIA Regulations, by appointing WSP to coordinate 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, ARUP and Wood Group PLC, 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, 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 Notice will be served for this application to the relevant Planning Authority, in this case THC, of the application for consent under the Town and Country Planning (Scotland) Act 1997 (as amended).

1.9.2 The application and the accompanying Environmental Impact Assessment Report are available for public inspection between the hours of 9.00am and 5.00pm, Monday to Friday at the following locations:

1.9.3 The Highland Council Infrastructure and Environment Service, Council Headquarters, Glenurquhart Road, Inverness, IV3 5NX.

1.9.4 A copy will also be available at Kiltarlity Post Office, Coffee Shop and Village Store, Allarburn Place, Kiltarlity, Beauly, IV4 7HG at the following times:

- Between 7:30am – 4:30pm Monday to Friday
- Between 7:30am and 2:30pm Saturday; and
- Between 08:30am and 4:30pm Sunday.

1.9.5 An electronic version of the application, including this EIA is available to view and comment on via The Highland Council online portal at http://wam.highland.gov.uk/wam/ (search using application keyword: Fanellan).

1.9.6 Notice of the application, and details of the Proposed Development, together with a further digital copy of the EIA Report are available on SSEN Transmission's website: ssen-transmission.co.uk/projects/project-map/new-fanellan-400kv-substationand-converter-station/

1.9.7 This EIA Report is available in other formats if required and printed copies can be provided for a £1,250 fee. For details, including costs, contact:

Sally Cooper, Community Liaison Manager

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Email: fanellanengagement@sse.com