APPENDIX 4.2 – SCOPING REPORT - JANUARY 2024

Scottish & Southern Electricity Networks
TRANSMISSION

Strathy Wood Wind Farm Grid Connection

Environmental Impact Assessment:

Scoping Report

January 2024

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GLOSSARY

Term	Definition
Abnormal Indivisible Loads (AIL)	Any load that cannot be broken down into smaller loads for transport without undue expense or risk of damage.
Air Quality Management Area (AQMA)	An area where air pollution levels have exceeded the national air quality objectives.
Amenity	The natural environment, cultural heritage, landscape and visual quality. Also includes the impact of SSEN Transmission's works on communities, such as the effects of noise and disturbance from construction activities.
Ancillary Works	Works that are required to facilitate the construction and operation of the Proposed Development, such as the construction of access tracks and vegetation clearance.
AOD	Above Ordnance Datum
Baseline Conditions	Existing conditions prior to any modifications through the Proposed Development
BGS	British Geological Survey
Birds of Conservation Concern (BoCC)	The national conservation status of birds is determined by their listing on the Red, Amber and Green lists of Birds of Conservation Concern (BoCC), (as defined by Eaton et al[1]). The criteria used to assign a species to one of these lists reflect each species' global, European and UK status and measure the importance of the UK populations in international terms.
CaSPlan	Caithness and Sutherland Local Development Plan
CIEEM	Chartered Institute of Ecology and Environmental Management
Construction Environmental Management Plan (CEMP)	A site-specific environmental management plan setting out the environmental management procedures, legislation and requirements for a particular project and site.
CTMP	Construction Traffic Management Plan
DfT	UK Department of Transport
DWPA	Drinking Water Protected Area
EcIA	Ecological Impact Assessment
Ecological Clerk of Works (ECoW)	Provides specialist advice about ecological and environmental and issues during the construction of a development.
EMF	Electric and Magnetic fields
General Environmental Management Plan (GEMP)	Developed by the Applicant to document general procedures, legislation and requirements for a variety of processes, typically during the construction phase of a project.
GWDTE	Ground Water Dependent Terrestrial Ecosystem
GWP	Global Warming Potential

[1] Eaton MA, Aebischer NJ, Brown AF, Hearn RD, Lock L, Musgrove AJ, Noble DG, Stroud DA and Gregory RD (2015). Birds of Conservation Concern 4: the population status of birds in the United Kingdom, Channel Islands and Isle of Man. British Birds 108, 708–746. Available online at http://www.britishbirds.co.uk/wp-content/uploads/2014/07/BoCC4.pdf

Term	Definition
Habitat	Term most accurately meaning the place in which a species lives, but also used to describe plant communities or agglomerations of plant communities.
Habitats Regulation Appraisal (HRA)	Under the Habitats Regulations, all competent authorities must consider whether any plan or project will have a 'likely significant effect' on a European site such as a SPA or SAC). If a 'likely significant effect' is deemed possible, they must carry out an 'appropriate assessment' (AA). This is known as Habitats Regulations Appraisal (HRA).
Highland Wide Local Development Plan (HwLDP) 2012	The Highland Wide Local Development Plan (HwLDP) 2012 provides the local planning framework for the area.
Historic Environment Scotland (HES)	A statutory consultee.
HRA	Habitat Regulations Appraisal must be carried out by the 'competent authority' if a plan or project (either alone or in combination with other plans or projects) could affect a European designated site. The Applicant is required to submit scientific evidence to enable the competent authority to complete the HRA and this evidence is typically submitted in the form of a 'Shadow HRA'.
ICNIRP	International Commission on Non-Ionising Radiation Protection on exposure to Electric and Magnetic fields (EMFs)
JNCC	Joint Nature Conservation Committee
Kilovolt (kV)	One thousand volts.
Landscape Character Type	A defined area of consistent landscape character identified in the NatureScot National Landscape Character Assessment of Scotland.
Listed Building	Building included on the list of buildings of special architectural or historic interest and afforded statutory protection under the 'Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997' and other planning legislation. Classified categories A – C(s).
LVIA	Landscape and Visual Assessment
Mitigation	Term used to indicate avoidance, remediation or reduction of adverse impacts.
National Planning Framework (NPF)	A framework that provides for long-term spatial development in Scotland setting out a long-term vision for development and investment across Scotland.
National Vegetation Classification (NVC)	One of the key common standards used to produce a comprehensive classification and description of the plant communities of Britain.
NatureScot	A statutory consultee (previously known as Scottish Natural Heritage (SNH))
Overhead line (OHL)	An electric line installed above ground, usually supported by lattice steel towers or poles.
Phase 1 Habitat Classification	Standardised system for classifying habitats in the UK
Plantation Woodland	Woodland of any age that obviously originated from planting.

Term	Definition
Scheduled Monument	A monument which has been scheduled by the Scottish Ministers as being of national importance under the terms of the 'Ancient Monuments and Archaeological Areas Act 1979'.
Semi-natural Woodland	Woodland that does not obviously originate from planting. The distribution of species will generally reflect the variations in the site and the soil. Planted trees must account for less than 30% of the canopy composition.
SEPA	Scottish Environmental Protection Agency. A statutory consultee.
Sites of Special Scientific Interest (SSSI)	Areas of national importance. The aim of the SSSI network is to maintain an adequate representation of all natural and semi-natural habitats and native species across Britain.
Special Area of Conservation (SAC)	An area designated under the EC Habitats Directive to ensure that rare, endangered or vulnerable habitats or species of community interest are either maintained at or restored to a favourable conservation status.
Special Landscape Area (SLA)	Landscapes designated by The Highland Council which are considered to be of regional/local importance for their scenic qualities.
Special Protection Area (SPA)	An area designated under the Wild Birds Directive (Directive74/409/EEC) to protect important bird habitats.
Species Protection Plan (SPP)	Developed by the Applicant to document general procedures, legislation and requirements for ensuring protection to a variety of species.
Stakeholders	Organisations and individuals who can affect or are affected by SSEN Transmission works.
The Highland Council (THC)	The local authority and the planning authority.
The Highland Council (THC) Historic Environment Record (HER)	The online Historic Environment Record for The Highland Council area, containing over 100,000 records.
The National Grid	The electricity transmission network in Great Britain.
The Proposed Development	The proposed new 132 kV OHL between Strathy Wood substation to 'T' onto the existing Strathy North 132 kV trident wood pole OHL.
UK Biodiversity Action Plan (UK BAP)	The UK Biodiversity Action Plan (UK BAP) was published in 1994 and was the UK Government's response to the Convention on Biological Diversity (CBD), which the UK signed up to in 1992 in Rio de Janeiro. The CBD called for the development and enforcement of national strategies and associated action plans to identify, conserve and protect existing biological diversity, and to enhance it wherever possible.
UK BAP Species	Species identified as being most threatened and requiring conservation action at a national level under the UK Biodiversity Action Plan (UK BAP).
Volts	The international unit of electric potential and electromotive force.
Visualisation Location (VL)	The geographic location of a visualisation prepared to inform and support the LVIA (to meet THC (2016) visualisation standards and NatureScot guidance).
Zone of Theoretical Visibility (ZTV)	The computer-generated theoretical visibility of an object in the landscape.

EXECUTIVE SUMMARY

Scottish Hydro Electric Transmission plc ("the Applicant") who, operating and known as Scottish and Southern Electricity Networks Transmission ("SSEN Transmission"), own and develop the high voltage electricity transmission system in the north of Scotland and remote islands. SSEN Transmission holds a license under the Electricity Act 1989 to develop and maintain an efficient, co-ordinated and economical system of electricity transmission.

SSEN Transmission is proposing to submit an application under Section 37 of the Electricity Act 1989 for consent to construct and operate a new 132 kV overhead line (OHL) to connect the consented Strathy Wood wind farm to the electricity transmission network at Connagill 275/132 kV substation via the existing Strathy North 132 kV trident wood pole OHL.

The connection would comprise approximately 4.5 km in length of 132 kV OHL supported by steel lattice towers from the consented Strathy Wood wind farm on-site substation located at Braerathy Lodge (grid ref NC 82293 56184) to a 'T' onto the existing Strathy North 132 kV trident 'H' wood pole OHL near Dallangwell. There would be a requirement for the construction of wood pole structures to facilitate the 'T' onto the existing 132 kV OHL.

An Environmental Impact Assessment (EIA), supported by appropriate surveys and specialist assessments, will be carried out to inform an EIA Report. This will form part of an application to Scottish Ministers under section 37 of the Electricity Act 1989 for consent to construct the project.

This Scoping Report is provided to support a formal request under Regulation 12 of the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 by the Applicant for a Scoping Opinion to determine the information to be provided within the EIA Report.

The Applicant invites consultees to comment on the following:

- What environmental information do you hold or are aware of that will assist in the EIA described here?
- Do you agree with the proposed approach for baseline collection, and that the range of surveys across particular topics is sufficient and appropriate to inform the assessment of environmental effects?
- Is there any other relevant existing baseline data that should be taken into account?
- Are there any key issues or possible effects which have been omitted?
- Do you agree with the list of issues to be scoped out, and the rationale behind the decision?

Responses to this Scoping Report should be directed to the Energy Consents Unit (ECU) of the Scottish Government to ensure all responses are collated and included within the Scoping Opinion. Responses should be directed to:

Email: Representations_Mailbox@gov.scot

OR

Energy Consents Unit
Scottish Government
5 Atlantic Quay
150 Broomielaw
Glasgow, G2 8LU

When submitting a response to the Scoping Report, the Applicant would be grateful if you could also send a copy of your response to the address below:

Email to: James.JH.Harris@sse.com

OR

For the Attention of James Harris
Scottish and Southern Electricity Networks Transmission
Inveralmond House
200 Dunkeld Road
Perth,
PH1 3AQ

1. INTRODUCTION

1.1 Overview

1.1.1 This Scoping Report has been prepared by ASH design+assessment Limited ("ASH") 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 Scoping Report, the Applicant and SSEN Transmission are used interchangeably unless the context requires otherwise.

1.1.2 The Applicant is proposing to submit an application under Section 37 of the Electricity Act 1989 for consent to construct and operate a new 132 kV overhead line (OHL) which would connect the consented Strathy Wood wind farm (ECU reference EC00005239) to the National Grid via the existing Strathy North 132 kV trident wood pole OHL, herein after referred to as the Proposed Development. The Proposed Development would be located approximately 6.5 km south of Strathy, Sutherland, in the Highlands of Scotland (see **Figure 1**).

1.1.3 The Proposed Development would comprise approximately 4.5 km in length of 132 kV OHL supported by steel lattice towers from the consented Strathy Wood wind farm on-site substation located at Braerathy Lodge (grid ref NC 82293 56184) to a 'T' onto the existing Strathy North to Connagill trident 'H' wood pole 132 kV OHL near Dallangwell, as indicatively shown on **Figure 1.** There would be a requirement for the construction of a series of wood pole structures to allow a 'T' onto the existing 132 kV OHL.

1.1.4 This connection would transport electricity generated by the consented Strathy Wood wind farm initially for a period of approximately 11 months, but would eventually be utilised as 'shared infrastructure' with the consented Strathy South wind farm, as further explained below.

1.1.5 The Proposed Development is part of a wider approach to rationalise and facilitate five wind farm connections in the area, referred to as the "Connagill Cluster Grid Connections". The Proposed Development would eventually share the OHL connection with the consented Strathy South wind farm. The Strathy South grid connection would connect the consented Strathy South wind farm substation to the Strathy Wood wind farm substation via underground cable. From there both Strathy Wood wind farm and Strathy South wind farm connections would share the OHL infrastructure proposed as part of the Proposed Development. Due to the combined generating capacity of the consented Strathy South and Strathy Wood wind farms, the shared connection would be unable to utilise the existing Strathy North trident 'H' wood pole 132 kV OHL to Connagill 275/132 kV substation. Instead, a new section of double circuit 132 kV OHL supported by steel lattice towers would continue the connection between the Strathy North 'T' (at Dallangwell) to Connagill 275/132 kV (and this would be subject to a separate Scoping Report).

1.1.6 For further information on the wider Project, please refer to the *'Connagill Cluster Routeing Consutlation Docuement*' available at: Connagill Cluster Wind Farm Connections - SSEN Transmission (ssen-transmission.co.uk)

1.1.7 This Scoping Report is provided to support a formal request to Scottish Ministers under the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (the EIA Regulations) by the Applicant for a Scoping Opinion to determine the information to be provided within the EIA Report.

1.2 Legislative and Statutory Context

1.2.1 Consent for the Proposed Development is sought from Scottish Ministers under section 37 of the Electricity Act (1989). The Electricity Act 1989 (as amended) is the primary legislation governing the electricity supply industry in Great Britain and places statutory and licence obligations upon a licence holder.

1.2.2 The requirement to undertake an EIA for developments requiring consent under section 37 of the 1989 Act (subject to stipulations and thresholds) is set out in the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017[2], (hereafter referred to as 'the EIA Regulations').

1.2.3 Construction of Proposed Development constitutes development in terms of section 26 of the Town and Country Planning (Scotland) Act 1997 (as amended) ("the Planning Act"). Accordingly, these works require planning permission. However, section 57(2) of the Planning Act provides that on the granting of a consent under section 37 of the Electricity Act 1989, for overhead transmission lines and ancillary development, the Scottish Ministers may direct that planning permission for that development shall be deemed to be granted. Deemed planning permission under section 57 of the Planning Act would therefore also be sought from the Scottish Ministers in terms of a future application.

1.3 The EIA Regulations

1.3.1 The Proposed Development is classified as Schedule 2 development under the EIA Regulations by virtue of it being classed as:

> "*The carrying out of development (other than development which is Schedule 1 development) to provide any of the following -*
>
> *(2) an electric line installed above ground –*
>
> *(a) with a voltage of 132 kilovolts or more"*

1.3.2 A Screening Opinion was previously sought for the Strathy Wood Grid Connection from Scottish Ministers by the Applicant in June 2019 for a trident "H wood pole" connection. The Screening Opinion determined that the Proposed Development should be EIA Development under the terms of the EIA Regulations. A Scoping Report was subsequently submitted to the Energy Consents Unit (application reference ECU00002050) by the Applicant in June 2020 to determine the scope of environmental assessment work, and a Scoping Opinion was provided by Scottish Ministers in December 2020.

1.3.3 Given the change in technology type proposed (from trident 'H' wood pole to steel lattice tower), as well as the time that has since lapsed, the Applicant is seeking a further Scoping Opinion from the Scottish Ministers.

1.4 Purpose of the EIA Scoping Report

1.4.1 The purpose of this EIA Scoping Report is to ensure that the subsequent EIA is focused on the key impacts likely to give rise to significant adverse effects. As well as identifying aspects to be considered in the EIA this document also identifies those aspects that are not considered necessary to assess further.

1.4.2 In accordance with the EIA Regulations, this EIA Scoping Report contains:

[2] The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017, available at https://www.legislation.gov.uk/ssi/2017/101/contents/made. Accessed 13/06/2023.

- A plan sufficient to identify the location of the Proposed Development.
- A brief description of the nature and purpose of the Proposed Development and its possible effects on the environment; and
- Information and representations from the Applicant on the aspects of the Proposed Development or environment that are not considered necessary to assess further in the EIA Report.

1.5 Scoping Report Methodology

1.5.1 This Scoping Report provides information on the individual factors which require consideration under Regulation 4(3) of the EIA Regulations. This EIA Scoping Report presents the findings of an initial appraisal of the likely significant environmental effects of the Proposed Development on the receiving environment. It provides a basic overview of the baseline conditions as understood at the time of writing and the likely potential effects as a result of the Proposed Development. Where site survey and further assessment are deemed necessary, the approach and methodologies are outlined. Environmental topics included for initial assessment in this EIA Scoping Report are:

- Landscape and Visual Amenity;
- Ecology and Nature Conservation;
- Ornithology;
- Cultural Heritage;
- Geology, Soils and Water;
- Forestry;
- Traffic and Transport;
- Socio-economics, Recreation and Tourism;
- Land Use and Agriculture;
- Population and Human Health;
- Accidents and Disasters; and
- Air Quality and Climate.

1.5.2 The proposed scope of the EIA Report is set out within this Scoping Report on a topic by topic basis.

1.5.3 For each topic, an overall description of the baseline environment is provided relevant to that topic. This is followed by a summary of the potential effects associated with each environmental topic listed above, and the proposed scope of survey and assessment work to determine effects and identify appropriate mitigation measures. Issues to be scoped out of assessment are also provided.

1.6 Route and Alignment Selection

1.6.1 The Proposed Development has been subject to a routeing process in which alternative routes and design solutions for the proposed connection were compared to find an optimal solution based on a balance between environmental, engineering and cost factors.

1.6.2 On 30th November 2023, a public consultation event was held at Strathy Village Hall between 16:00 - 19:00. This was followed by issue of a Consultation Document which set out the project need and described the Connagill Cluster Grid Connections as a whole. The report aimed to seek comments from stakeholders and members of the public on the route option studies undertaken, and the rationale for, and approach to, the selection of the optimal routes for each connection. Responses received from the Consultation Document and consultation event will be documented within a Report on Consultation and will inform decisions on the identification of a proposed route.

1.6.3 The optimal route identified within the Routeing Consultation Document between Strathy Wood substation and Strathy North substation (in proximity to Dallangwell) is the Proposed Development that is set out within this Scoping Report and illustrated on **Figure 1.** The optimal route has a width of 200 m, within which the consideration of alignment options will be undertaken prior to selecting a proposed alignment to take forward for section 37 consent.

Information on the project can be found on the project website at: Connagill Cluster Wind Farm Connections - SSEN Transmission (ssen-transmission.co.uk)

1.7 Pre-Application Consultation

1.7.1 To introduce the Connagill Cluster Grid Connection projects (including the Proposed Development), a virtual pre-application meeting was held with statutory consultees, co-ordinated by The Highland Council (THC) on 22nd Augst 2023. Following the meeting, a Pre-Application Advice Report was issued by THC on 20th September 2023. The Advice Report provided a note of the meeting and feedback on the information to be included in the EIA by key stakeholders.

2. DESCRIPTION OF THE PROPOSED DEVELOPMENT

2.1 Introduction

2.1.1 This section describes the various elements that constitute the Proposed Development. It provides a description of the need for the development, the key components required and information regarding the construction, operation, and maintenance of the Proposed Development.

2.2 Proposed Development Components

2.2.1 The Proposed Development is driven by the need to connect the consented Strathy Wood wind farm (and eventually the consented Strathy South wind farm) to the National Grid.

2.2.2 The Proposed Development would commence from a cable sealing end (CSE) compound in the vicinity of the Strathy Wood substation. From the CSE compound, approximately 4.5 km of 132 kV double circuit OHL supported by steel lattice towers would head in a northerly direction where it would 'T' onto the existing Strathy North trident 'H' wood pole 132 kV OHL circuit. A series of 132 kV trident 'H' wood poles would be required to complete the connection between the new 132 kV OHL supported by steel lattice towers and the existing Strathy North trident 'H' wood pole 132 kV OHL. The Proposed Development is illustrated on **Figure 1.**

2.2.3 The elements of the Proposed Development subject to consent under Section 37 of the Electricity Act 1989 comprise:

- Approximately 4.5 km of 132 kV OHL supported by double circuit steel lattice towers (L7 towers); and
- Approximately 200m of 132 kV OHL supported by trident 'H' wood pole.

2.2.4 The Applicant is also seeking deemed planning permission under section 57 (2) of the Town and Country Planning (Scotland) Act 1997 for certain elements of the project, or ancillary works required to facilitate its construction and operation. These ancillary works (which also form part of the Scoping Report) are likely to include:

- One CSE compound or a tower with a cable sealing end platform to facilitate the transition between OHL and UGC.
- Steel lattice and wood pole working areas, construction compounds and borrow pits;
- Access track spurs to facilitate construction and ongoing maintenance where required;
- A bridge crossing over the River Strathy to enable access; and
- Any tree and vegetation clearance (if required).

2.3 Limit of Deviation

2.3.1 The section 37 application will seek consent for the construction and operation of the OHL, specifying a centre line, terminal and angle supporting structures with a prescribed horizontal Line of deviation (LOD) to allow flexibility in the final siting of individual towers and construction access to reflect localised land, engineering and environmental constraints.

2.3.2 It is anticipated that a 100 m LOD (50 m either side of the centre line of an OHL alignment) would be sought to allow for micro-siting of the OHL during construction. A 50 m LOD will be sought for the construction of new access tracks and a 100 m LOD will be sought for the construction of the CSE compound.

2.3.3 A vertical LOD, i.e. the maximum height of a tower above ground level, would be confirmed through the EIA process as more detailed design information is obtained. Whilst indicative tower heights are known based on tower designs, some structure heights may vary depending on topography.

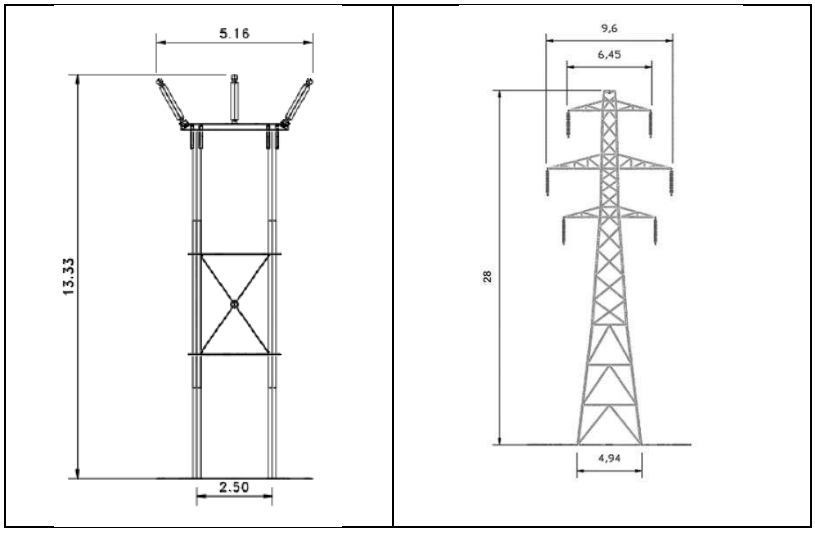
2.4 Overhead Line (OHL) Design

2.4.1 Where steel structures are proposed, these will be of a lattice design and would comprise a 'L7' series of steel lattice tower. The span length (distance between towers) would vary slightly depending on topography and land usage. The span lengths for the Proposed Development would be between approximately 200 - 280 m. Tower heights would also vary, depending on local topography, but would typically be 27 m in height. Exact heights of and the distances between towers would be determined after a detailed line survey and confirmed prior to submission of an application for consent. The towers would carry two circuits, each with three conductors supported from either glass, porcelain, or composite insulators attached to the horizontal cross arms on both sides of each steel lattice tower. An Optical Ground Wire (OPGW)[3] would be suspended between tower peaks, above the conductors.

2.4.2 The proposed new H wood pole would have a nominal height of between approximately 13 – 16 m (including insulators and support), depending on ground conditions. The spacing between the poles would be approximately 80 m, subject to topography, altitude and further survey. This will also be confirmed prior to submission of an application for consent.

2.4.3 A schematic of the proposed steel lattice towers and wood poles is shown in **Plate 2.1** below.

Plate 2.1: Proposed Wood Pole and Steel Lattice Tower Typical Schematics



[3] Optical Ground Wire is a dual functioning cable, providing a 'shield' to conductors from lightning, whilst also comprising optical cables for telecommunication purposes.

2.5 OHL Construction

2.5.1 Further detail on typical construction activities and work methods would be set out in the EIA Report. An outline of the likely programme, phasing and working methods is provided here for the purpose of informing the initial scoping stage environmental assessment.

Construction Programme

2.5.2 It is anticipated that the timeframe between commencement of development and completion of energising the line would be approximately 12 months. The detailed construction phasing and programme would be subject to change as the design progresses. Further information will be provided in the EIA Report on the indicative construction programme.

Standard Mitigation and Working Methods

2.5.3 The initial scoping appraisal and the assessment in the EIA Report will be carried out on the basis that standard mitigation measures will be implemented during the construction work, including compliance with both project wide and site specific environmental management procedures, with reference to SSEN Transmission General Environmental Management Plans (GEMPs) and Species Protection Plans (SPPs).

2.5.4 A Construction Environment Management Plan (CEMP) would be developed for the project and adopted by the successful contractor during the construction phase. The principal objective of this document is to provide information on the proposed infrastructure and to aid in avoiding, minimising and controlling adverse environmental impacts associated with the Proposed Development. Furthermore, this document will aim to define good practice as well as specific actions required to implement mitigation identified in the EIA Report, the planning process and / or other licencing or consenting processes. Mitigation measures relevant to the OHL will be incorporated into the overall CEMP for the project. The CEMP would be updated during the pre-construction phase and would form part of the contractor documents between the Applicant and the appointed construction contractor.

2.6 Construction Practices and Phasing

Phase 1 – Enabling Works

Access during Construction

2.6.1 Whilst construction access details are yet to be finalised, it is anticipated that construction site access would be taken via the existing A836 public road network and would make use of an existing junction (located approximately 1 km east of Strathy) onto an existing track leading to Strathy South wind farm. The track is currently being upgraded.

2.6.2 For steel lattice tower construction, new stone ‘spur’ tracks are likely to be required to access each steel tower from the existing track, designed to suit the heavy plant loads required for construction works for steel towers. It is anticipated that stone ‘spur’ tracks would be approximately 4 m in width. On completion of construction, unless required for operational access, the stone tracks would be removed and the original material reinstated. Where required, permanent tracks would be reinstated to a width suitable for 4x4 vehicles.

2.6.3 Temporary trackways are an alternative method of providing access, dependent on ground conditions. Although there may be localised areas where trackway may be suitable, it is not considered an appropriate solution for the construction of steel lattice towers on this project in its entirety given the weight and size of construction plant that would be required to track over them. Stone tracks generally afford greater reliability and stability compared to trackway solutions. Access track and preliminary bridge design crossing details will be finalised at the EIA stage of the project. Materials required for the construction of any new stone spurs are likely to be obtained from on-site borrow pits or imported from local quarries. The exact location of borrow pits would be dependent upon site surveys, availability of suitable material and proximity to the required location.

2.6.4 For wood pole construction, vehicle access is required to each pole location during construction, moving along the line, to allow excavation and creation of foundations and pole installation. Preference will be given to lower impact access solutions including the use of low pressure tracked personnel vehicles and trackway in boggy / soft ground areas to reduce any damage to, and compaction of, the ground. These journeys would be kept to a minimum to minimise disruption to habitats along the route.

Forestry Clearance

2.6.5 The Proposed Development would pass through or close to areas of regenerated conifer trees and some planted broadleaved woodland that would require to be felled to maintain a construction and operational wayleave corridor.

Site Compounds

2.6.6 It is currently anticipated that a construction compound and laydown area/s would be required, the locations of which would be confirmed by the Principal Contractor.

Phase 2 – Construction Works

Foundations

2.6.7 Depending on topography, the type of pole and the ground conditions, the foundations for each double trident wood H pole would be either:

- Augered sleeve, typically requiring the use of a tracked vehicle mounted auger to create two holes approximately 700 mm in diameter and 2 to 3 m deep, into which the poles would be slotted before being grouted. Helicopters could also be used; or
- Standard concrete foundation, involving the excavation of soils to create a concrete block foundation.

2.6.8 Different approaches to forming foundations may be used for steel lattice towers, subject to ground conditions at each location. These are likely to comprise:

- Spread type e.g. concrete pad and chimney; or
- Piled type e.g. driven concrete, tube and micro pile; or
- Augered.

2.6.9 Foundation types and designs for each pole and tower will be confirmed following detailed geotechnical investigation at each position.

H Pole Construction

2.6.10 Installation of a wood pole would involve the excavation of a suitable area for the wood poles and backfilling after installation of the pole (which would generally be carried out the same day as the excavation so that no open excavations are left overnight). The exact area would depend on the ground conditions of each pole. In some pole locations it may be necessary to add imported hardcore backfill around the pole foundations to provide additional stability in areas where the natural sub soils have poor compaction qualities.

Steel Lattice Tower Construction

2.6.11 Tower construction can typically commence two weeks after the foundations have been cast, subject to weather conditions and concrete curing rates. Tower steelwork would be delivered to each tower construction site either as individual steel members or as prefabricated panels, depending on the method of installation and the available access. A working area, up to approximately 50 m x 50 m, is required at each tower location to facilitate access, laydown and assembly.

Conductor Stringing

2.6.12 The conductor would be delivered to site on wooden drums in pre-determined pulling section lengths. Prior to stringing the conductors, temporary protection measures (e.g. netted scaffolds), would be required across public roads and existing access tracks.

2.6.13 Conductor stringing equipment (i.e. winches, tensioners and ancillary equipment) are set out at either end of pre-selected sections of the OHL.

2.6.14 Pilot wires would be pulled through the section to be strung. These would be hung on blocks (wheels) at each suspension tower and connected to a winch and tensioner at the respective end of the section. The winch, in conjunction with the tensioner is used to pull the pilot wires between the structures. The conductor is pulled via the pilot wires through the section under tension to avoid contact with the ground and any underrunning obstacles. Once the conductor has been strung between the ends of the section it is then tensioned and permanently clamped at each pole / tower.

Cable Sealing End

2.6.15 One CSE compound or CSE tower would be required to facilitate the transitions from UGC (required as part of the Strathy South wind farm grid connection that will eventually share this OHL with Strathy Wood wind farm) to OHL and vice versa. The exact technology to facilitate the transition has yet to be determined however the requirements for each are listed below:

- Typical CSE compounds comprise a platform surrounded by a steel palisade security fence of usually 2.4 m in height. The compounds would be anticipated to be approximately 50 m x 50 m. Within the CSE compounds there would be a terminal tower, and associated gantry infrastructure. A permanent access track would be required at each CSE compound. A typical CSE compound is shown on **Plate 2.2.**
- Typical CSE towers would accommodate the CSE equipment and downleads mounted on a specialised tower with a basket. Cables would emerge from below ground and would be affixed to the tower. The cables would be enclosed in a protective basket and anti-climb measures would be installed on the structure for safety reasons. The exact design of the CSE tower would be confirmed by the Contractor. A typical CSE structure is shown on **Plate 2.3.**

2.6.16 In assessing the environmental impacts of the CSE, the worst-case will be assumed in each instance. For example, the highest tower and the biggest footprint will be assessed regardless of technology type.

Plate 2.2: Typical Cable Sealing End Compound

Plate 2.3: Typical Cable Sealing End Tower

Phase 3 - Commissioning

2.6.17 The OHL and support poles and towers would then be subject to an inspection and snagging process. This allows the Contractor and SSEN Transmission to check that the works have been built to specification and are fit to energise. The circuits would then be energised from the substations in a phased sequence.

Phase 4 - Reinstatement

2.6.18 Following commissioning of the Proposed Development, it is anticipated that all construction sites would be reinstated. Reinstatement would form part of the contract obligations for the Principal Contractor and would include the removal of all temporary access tracks, all work sites around the pole and tower locations and the re-vegetation of all construction compounds.

2.7 Operation and Management of the OHL

2.7.1 OHLs require very little maintenance. Regular inspections are undertaken to identify any unacceptable deterioration of components, so that they can be replaced. From time to time, inclement weather, storms or lightning can cause damage to either the insulators or the conductors. If conductors are damaged, short sections may have to be replaced.

2.7.2 The wooden H poles typically have a lifespan of 40 years, while steel lattice towers generally last 80 years.

2.7.3 In addition to the removal of vegetation to facilitate construction, it may be necessary to manage all vegetation within the vicinity of the OHL throughout operation, to maintain required safety clearance distances. Vegetation clearance required will be dependent on the height of the vegetation adjacent to the OHL and the surrounding topography.

2.8 Biodiversity Net Gain

2.8.1 Biodiversity Net Gain (BNG) is a process which leaves nature in a better state than it started. SSEN Transmission has developed a BNG toolkit based upon the Natural England metric[4], which aims to quantify biodiversity based upon the value of habitats for nature. It is an efficient and effective method for demonstrating whether development projects have been able to maintain or increase the biodiversity value of a development site after construction works.

2.8.2 The BNG toolkit would be applied on this project to quantify the overall potential biodiversity impacts for the Proposed Development; this includes a biodiversity baseline assessment, analysis of habitat losses due to temporary works and permanent structures during construction works, and analysis of biodiversity gains following reinstatement of habitats in areas of temporary construction work.

SSEN Transmission's Biodiversity Ambition

2.8.3 SSEN Transmission is committed to protecting and enhancing the environment by minimising the potential impacts from their construction and operational activities. As part of this approach, SSEN Transmission plc has made commitments within its Sustainability Strategy (2018)[5] , Sustainability Plan (2019)[6] and RIIO-T2 Business Plan, for new infrastructure projects to:

- Ensure natural environment considerations are included in decision making at each stage of a project's development;
- Utilise the mitigation hierarchy to avoid impacts by consideration of biodiversity in project design;
- Positively contribute to the UN and Scottish Government Biodiversity strategies by achieving Net Gain on projects gaining consent in 2025 onwards; and

- Work with their supply chain to gain the maximum benefit during asset replacement and upgrades.

2.8.4 The design and evolution of this project will be carried out in line with these commitments.

[4] Natural England Biodiversity Metric 2.0 http://publications.naturalengland.org.uk/publication/5850908674228224

[5] Delivering a smart, sustainable energy future: The Scottish Hydro Electric Transmission Sustainability Strategy (2018) https://www.ssen-transmission.co.uk/media/2701/sustainability-strategy.pdf

[6] Our Sustainability Plan: Turning Ambition into Action. (2019) SHE Transmission. https://www.ssen-transmission.co.uk/media/3215/our-sustainability-plan-consultation-report.pdf

3. EIA APPROACH AND METHODOLOGY

3.1 Introduction

3.1.1 The EIA Report will be prepared in accordance with the EIA Regulations, and the approach to the assessment would be informed by current best practice guidance, including the following:

- Scottish Government Planning Advice Note (PAN) 1/2013 (revision 1.0)[7]; and
- Planning Circular 1/2017[8].

3.1.2 The EIA work will comprise a series of specialist environmental studies which will be targeted to assess the potential significant effects which the Proposed Development is likely to have on the environment. Each topic included within the EIA Report will be incorporated as a separate chapter in the main body of the EIA Report, or included as an appendix if the assessment of the subject matter requires to be more detailed.

3.1.3 On receipt and consideration of this Scoping Report, the ECU of the Scottish Government, following input by statutory and non-statutory consultees, will issue their Scoping Opinion confirming the scope of the EIA Report. Throughout the EIA Report, where an issue raised in the Scoping Opinion is addressed, this will be clearly referenced in the relevant chapter. A scoping matrix will also be included in the EIA Report which will detail all consultation responses received during the scoping and EIA process, with a reference to where these responses have been addressed in the EIA Report. A schedule of mitigation measures will also be included as an appendix and cross-referenced in the relevant assessment work.

3.2 Structure of the EIA Report

3.2.1 It is anticipated that the EIA Report would be structured as follows:

- Volume 1 – Main Report. Describing the project, the alternatives considered, the EIA process, and including an assessment undertaken for each of the environmental topics scoped into the EIA.
- Volume 2 – Figures. This volume would provide supporting figures to the assessments carried out as part of Volume 1. This would include visualisations undertaken from agreed viewpoint locations of the Proposed Development.
- Volume 3 – Technical Appendices. This volume would provide supporting technical appendices to the assessments carried out as part of Volume 1.
- A Non-Technical Summary would form part of the EIA Report, summarising the project and its likely significant effects.
- A Planning Statement would also be provided, assessing the Proposed Development against the planning context.

3.2.2 The description of the likely significant effects will cover direct effects and indirect (including secondary) effects. The description of effects will identify the effect duration (short-term, medium- term and long-term), whether effects are permanent or temporary, and if effects can be categorised as adverse or beneficial.

3.2.3 It is considered that there would be no potential for transboundary effects associated with the Proposed Development, and therefore no further assessment of transboundary effects is proposed.

3.2.4 A more detailed overview of the guidance and methodology adopted for each technical study is provided within Sections 5 to 10 of this Scoping Report.

3.3 Cumulative Effects

3.3.1 The appraisal of cumulative effects would be considered in relation to those topics scoped into the EIA. The individual topic-based chapters would set out the justification for developments to be included in each of the topic based cumulative effects assessment.

3.3.2 **Table 3.1** lists the developments that are broadly considered to be relevant. Such developments typically include those for which consent has been granted, or future development for which it is reasonable to assume.

3.3.3 As noted in sub-sections 1.1.4 - 1.1.5, to enable the transmission of electricity generated by Strathy South wind farm, a new section of double circuit 132 kV OHL supported by steel lattice towers will be required. This would be routed between the Strathy North 'T' in point (of the Proposed Development) near Dallanwell and Connagill 275/132 kV substation. This development would be subject to a separate consenting process to the Proposed Development; however, the cumulative effects would be considered within the EIA Report of the Proposed Development.

3.3.4 To facilitate the five wind farm connections as part of the 'Connagill Cluster Grid Connections', a new switching station will be required to collect all incoming circuits onto a double busbar. The Applicant is currently at early optioneering stage for the proposed Strathy Switching Station, and it would be subject to a separate consenting process. However, the cumulative effects would be considered within the EIA Report of the Proposed Development.

Table 3.1: Cumulative Developments

ECU REF	Development Name and Type	Application Status	Description
ECU00002133	Strathy South Wind Farm	Consented by ECU in November 2021	Wind farm development with 39 turbines and a generating capacity of 208 MW. Located to the south of Strathy Forest.
EC00005239	Strathy Wood Wind Farm	Consented by ECU in December 2021	Wind farm development of 11 turbines with a generating capacity of up to 62.4MW. Located on the eastern edge of Strathy Forest.
ECU00003455	Armadale Wind Farm	Application submitted to ECU in March 2022	Wind farm and Battery Energy Storage System (BESS) development of 9 turbines and a combined generating capacity of 85.4 MW.
ECU00004514	Melvich Wind Farm	Application submitted to ECU in March 2023	Wind farm and BESS development comprising 12 turbines and a combined generating capacity of 99.6 MW.
N/A	Strathy South Wind Farm Grid Connection	Routeing, pre-application stage	132 kV underground cable and 132 kV double circuit steel lattice OHL
N/A	Armadale Wind Farm Grid Connection	Routeing, pre-application stage	132 kV Trident H wood pole OHL
N/A	Strathy Switching Station	Site Selection, pre-application stage	

[7] Scottish Government (2013, revised 2017) Planning Advice Note 1/2013 (revision 1.0): Environmental Impact Assessment.
[8] Scottish Government (2017) Planning Circular 1/2017: Environmental Impact Assessment Regulations 2017.

3.4 Mitigation

3.4.1 A routeing selection process has sought to avoid or minimise likely significant environmental effects of the Proposed Development through careful routeing where practicable. Further review of the Proposed Development at alignment and EIA stage will provide further opportunity to mitigate likely significant effects, for example through the micro-siting of infrastructure and construction access, and the implementation of good practice during construction.

3.4.2 The EIA will identify and assess potentially significant effects prior to mitigation. Where mitigation measures are proposed to reduce or avoid a potential effect, the significance of the 'residual' effect will then be assessed. The Applicant and / or the successful contractor will be committed to implementing all the mitigation measures identified in the EIA Report. Where there are opportunities for offsetting and/or positively enhancing effects, these will be identified through the EIA process.

3.5 Habitats Regulation Appraisal

3.5.1 The Proposed Development would in places pass through or within close proximity to the European designated sites; the Caithness and Sutherland Peatlands Special Area of Conservation (SAC) and Special Protection Area (SPA). A Habitats Regulation Appraisal (HRA) will therefore be required to be carried out by the Competent Authority upon submission of a consent application. In this case, a shadow HRA will be provided within the EIA Report (see Sections 6 and 7 of this Scoping Report).

3.6 Scoping Methodology

3.6.1 The following sections of this Scoping Report aim to provide sufficient detail to characterise the potential interactions between the Proposed Development and the environmental receptors identified. In presenting a rationale for the proposed scope of environmental assessment, this report has taken the sensitivity of the current state of the environment into account, based on an understanding of the baseline conditions. The Scoping Report has also been prepared with reference to the potential magnitude of impacts, considering the typical construction and operational activities, physical characteristics and potential emissions/residues associated with the Proposed Development.

3.6.2 Where there is sufficient evidence to support scoping a topic out of the EIA process, this is presented. Otherwise, where it is considered that there is the potential for likely significant effects, the scoping report provides details of the proposed scope or detailed impact assessment, including the approach to further baseline data collection and brief details of the proposed methodology for impact assessment which would be employed for each topic.

4. PLANNING POLICY

4.1 Introduction

4.1.1 This section provides an overview of the planning policy context for the Proposed Development. A more detailed discussion and evaluation of relevant policies will be included within the Planning Statement that will be provided as a supporting document with the application for consent. An up-to-date list of relevant planning policies will be contained within the EIA Report.

4.2 National Planning Policy

National Planning Framework 4 2023 (NPF4)

4.2.1 The National Planning Framework (NPF) is a long-term plan for Scotland that sets out where development and infrastructure is needed. NPF4 came into force on 13th February 2023.

4.2.2 Section 13, of the 2019 Planning Act amends Section 24 of the 1997 Planning Act regarding the meaning of the statutory Development Plan, such that for the purposes of the 1997 Act, the Development Plan for an area is taken to consist of the provisions of:

- The National Planning Framework; and
- Any Local Development Plan (LDP).

4.2.3 NPF4 therefore now forms part of the statutory Development Plan and should be afforded substantial weight. A key provision of the 2019 Planning Act is that in the event of any incompatibility between the provisions of NPF4 and a provision of an LDP then whichever of them is the later in date will prevail. That will include where a LDP is silent on an issue that is now provided for in NPF4.

4.2.4 NPF4 identifies the need for a significant increase in electricity generation from renewable sources to meet the net zero emissions targets and that the electricity transmission grid will need substantial reinforcement and additional infrastructure to achieve this. Developments that fall within one or more of the following categories will be designated as national development:

- '*Electricity generation, including electricity storage, from renewables of or exceeding 50 megawatts capacity;*
- *New and/or replacement high voltage electricity lines and interconnectors of 132kv or more; and*
- *New and/or upgraded infrastructure directly supporting high voltage electricity lines and interconnectors including converter stations, switching stations and substations*.'

4.2.5 The Proposed Development is therefore classed as national development under NPF4.

4.2.6 NPF4 will be the key policy consideration for the determination of the Proposed Development as part of the statutory Development Plan. In particular, the key NPF4 policy relevant to the Proposed Development is **Policy 11: Energy.** The following are also relevant to the Proposed Development:

- Policy 1: Tackling the climate and nature crises;
- Policy 2: Climate mitigation and adaptation;
- Policy 3: Biodiversity;
- Policy 4: Natural Places;

- Policy 5: Soils;
- Policy 6: Forestry, woodland and trees;
- Policy 7: Historic assets and places;
- Policy 14: Design, quality and place;
- Policy 22: Flood risk and water management;
- Policy 29: Rural Development; and
- Policy 30: Tourism.

4.3 Local Planning Policy

4.3.1 The site lies entirely within the jurisdiction of The Highland Council. The Proposed Development would be considered against the following Local Development Plan documents.

Highland-wide Local Development Plan

4.3.2 The Highland Wide Local Development Plan (HwLDP) 2012 provides the local planning framework for the area and provides the general policy context against which the Proposed Development would be assessed.

4.3.3 Policy 69 is the policy of most relevance to the Proposed Development given that it is specific to electricity transmission infrastructure. The policy acknowledges the significance and importance of proposals for electricity transmission infrastructure and provides support for proposals which are assessed as not having an unacceptable significant impact on the environment, taking into consideration mitigation measures.

4.3.4 Other relevant policies from the HwLDP are listed below:

- Policy 28: Sustainable Design;
- Policy 30: Physical Constraints;
- Policy 36: Development in the Wider Countryside;
- Policy 51: Trees and Development;
- Policy 52: Principle of Development in Woodland;
- Policy 53: Minerals;
- Policy 55: Peat and Soils;
- Policy 56: Travel;
- Policy 57: Natural, Built and Cultural Heritage;
- Policy 58: Protected Species;
- Policy 59: Other Important Species;
- Policy 60: Other Important Habitats and Article 10 Features;
- Policy 61: Landscape;
- Policy 62: Geodiversity;
- Policy 63: Water Environment;
- Policy 64: Flood Risk;
- Policy 69: Electrical Transmission Infrastructure;

- Policy 72: Pollution;
- Policy 77: Public Access; and
- Policy 78: Long Distance Routes.

Area Local Development Plan

4.3.5 The Caithness and Sutherland Local Development Plan (CaSPlan) (adopted 2018) also forms part of the development plan. It is used to guide decisions on planning applications and sets out the policies and land allocations to guide development over the next 20 years.

5. LANDSCAPE AND VISUAL AMENITY

5.1 Introduction

5.1.1 This section of the Scoping Report provides a brief overview of the landscape character and visual amenity baseline conditions, the potential effects associated with the construction and operation of the Proposed Development, and the proposed scope of assessment methodology to be considered in the EIA Report.

5.2 Baseline Conditions

Landscape and Visual Context

5.2.1 The Proposed Development would be situated in a broad river valley within a wider setting of expansive rolling moorland, scattered with lochs and an intermittent patchwork of coniferous forest plantations. This moorland valley is of a linear character, occupied by the winding River Strathy flowing northwards towards the coast, and a well-built access track. It is relatively contained by short, steep slopes with open moorland to the east and forest plantation to the west. Some riparian scrub also characterises the river corridor.

5.2.2 Wind turbines of the existing Strathy North Wind Farm are set to the west of the valley, beyond the forested edge, within an area that has been extensively felled, with the aim of a return to peatland habitats. The wind turbines form a strong influence on the valley which would be further increased at the southern end of the Proposed Development with the construction of the Strathy Wood Wind Farm for which the Proposed Development would provide the grid connection.

5.2.3 There is a generally functional character of operational industry with wind turbines or OHL infrastructure, including the large Strathy North substation, forming a noticeable feature throughout the valley. Nevertheless, there is a pervading sense of remoteness and distance from more peopled areas with only a very few estate properties scattered along the valley, some of which are in a state of dilapidation.

Landscape Designations

5.2.4 There are no areas designated or otherwise protected for their landscape character or visual amenity within close vicinity of the Proposed Development. The closest such area comprises the Farr Bay, Strathy and Portskerra Special Landscape Area (SLA), a coastal landscape designated by the THC. This lies over 4.5 km from the Proposed Development to the north and is unlikely to have any noticeable intervisibility with the Proposed Development.

Landscape Character

5.2.5 The Proposed Development would be located entirely within and would therefore directly affect, the Landscape Character Type (LCT) Sweeping Moorland and Flows (LCT 134) from the NatureScot suite of National Landscape Character Types (see **Figure 3**). This is a very extensive LCT, covering much of the inland area of Caithness and Sutherland, and is characterised by a typically undulating, expansive landscape of open moorland, low hills and flat peatland, occasionally interrupted by coniferous forest plantations and featuring with a sense of remoteness with limited habitation.

5.2.6 Elsewhere, pockets of crofting land at the coastal mouths of the glens and straths fall within LCT 144 (Coastal Crofts and Small Farms) and to the west, the more rugged landscape falls within LCT 136 (Rocky Hills and Moorland). The preliminary ZTV indicates that there would be no intervisibility of the Proposed Development with LCT 144, and limited intervisibility with LCT 136 due to the containment of the surrounding valley sides and hills (see **Figure 3**).

Visual Amenity

5.2.7 Visual receptors with the potential to gain views of the Proposed Development would be very limited, likely to include occupants of the few properties scattered through the valley, outdoor recreational users, and itinerant workers comprising estate staff or operational staff for the existing Strathy North Wind Farm and substation.

5.2.8 Of the properties within the valley, Braerathy Lodge at the southern end of the Proposed Development is unoccupied and derelict and due to be demolished to allow construction of the consented Strathy Wood substation. However, occupants of a small group of properties at Dalangwell and Bowside may gain views of the southern end of the Proposed Development.

5.2.9 Those engaged in recreation, and estate or existing wind farm workers, may potentially gain views of the Proposed Development from tracks. The main route through the valley is identified by the Scottish Rights of Way and Access Society (ScotWays) as Scottish Hill Track 344 – Strathy Halladale (Trantlebeg) to Strathy.

5.3 Potential Effects

5.3.1 The potential for landscape and visual effects associated with the construction and operation of the Proposed Development include:

- Temporary or long-term physical effects on landscape fabric, relating to the construction of temporary access routes, excavation of tower foundations, construction and reinstatement works and long term presence of the Proposed Development within the landscape;
- Temporary or long-term direct or indirect effects on landscape character which may occur as a result of changes to the landscape fabric on the intrinsic qualities of the immediate landscape and wider setting;
- Temporary or long-term effects on views experienced by occupants of properties, recreational and other users of the landscape; and
- Potential cumulative effects with other proposed infrastructure within the area.

5.4 Mitigation

5.4.1 Mitigation would be included where possible in order to minimise potential landscape and visual effects. Given the nature of the Proposed Development and existing landscape character, the most suitable mitigation is likely to involve the development of a design which limits the potential landscape and visual effects as far as is practicable when taking into consideration other constraints, along with good working practices to enable a high standard of landscape reinstatement.

5.4.2 The Proposed Development has undergone a routeing exercise which has taken landscape and visual issues into consideration.

5.5 Proposed Scope and Assessment Methodology

5.5.1 It is proposed that a Landscape and Visual Impact Assessment (LVIA) would be undertaken for the Proposed Development. The LVIA would be undertaken in accordance with best practice guidance: Guidelines for Landscape and Visual Impact Assessment (3rd Edition) (GLVIA3).

5.5.2 The LVIA would separately consider the potential landscape and visual effects of the Proposed Development during both construction and operation. It would also give consideration to potential cumulative effects which may take place. Operational effects would be assessed at an assumed 10 years after construction and would take into account any planting works proposed as part of the Proposed Development where necessary.

5.5.3 Potential effects will be presented as ratings of Negligible, Minor, Moderate and Major, taking into account ratings for sensitivity and magnitude of change and on the basis of professional judgement. Where appropriate, interim ratings will be allocated (e.g. Minor to Moderate or Moderate to Major). Effects identified as being at a level of Moderate or greater are considered significant in accordance with the EIA Regulations.

Study Area

5.5.4 The assessment would be informed by the Zone of Theoretical Visibility (ZTV) for the Proposed Development. A preliminary ZTV has been produced for the Proposed Development and is presented on **Figure 2** based on indicative tower locations and an assumed tower height of 28 m which reflects the standard height of the 'L7' series of tower proposed. The actual height of towers would vary depending on local topography and the ZTV would be updated once more detailed information is available.

5.5.5 Following review of the preliminary ZTV for the Proposed Development and taking into account ASH's experience of the landscape and visual effects of similar steel lattice towers to those proposed, a 2.5 km study area is considered appropriate to identify all potentially significant effects. Whilst the ZTV indicates that there may be small areas where visibility would be obtained beyond this distance. This would be very limited and is considered unlikely to lead to any noticeable degree of effect, particularly when taking into account the presence of surrounding forest areas, and the effects of existing wind turbines.

Landscape Assessment

5.5.6 The landscape assessment would describe the key components, features and characteristics that make up the character of the landscape within the study area. It would consider the extent to which any potential loss of features and the introduction of the Proposed Development would influence the local landscape character and the broader, National LCTs. As the pattern of LCTs is very broad across the proposed study area, division of these into a finer grain classification would be considered, in order to reflect the variation of localised landscape characteristics and the potential effects on these, across the study area.

Visual Assessment

5.5.7 The visual assessment would be receptor-based and would give consideration to views obtained by all those living, working and undertaking recreation within the study area, including all building locations, recreational routes and other identified valued viewing locations.

Cumulative Assessment

5.5.8 The Proposed Development comprises one part of a range of grid infrastructure developments proposed within the wider area, to connect several wind farms to the National Grid. A cumulative LVIA would be undertaken and would consider the effects of the Proposed Development within the study area as an addition to these other proposed energy developments. Only those developments with potential to lead to landscape and visual effects within the study area are included, as developments not affecting this area would not lead to cumulative effects with the Proposed Development.

5.5.9 At this stage, the following developments are proposed for inclusion within the cumulative LVIA:

- Wind Farms
  - Strathy South Wind Farm; and
  - Strathy Wood Wind Farm (see sub-section 5.5.11 below).
- Grid Infrastructure
  - Strathy Switching Station;
  - Armadale Wind Farm Grid Connection; and

- Strathy South Wind Farm Grid Connection.

5.5.10 The cumulative assessment would consider the effects during the operational phase of the Proposed Development only as it is unlikely that all cumulative baseline developments would be constructed simultaneously.

5.5.11 As the requirement for the Proposed Development would be dependent on the Strathy Wood wind farm, this would be considered as part of the baseline for operational effects. However, as it also forms part of the wider grouping of developments proposed, it would also form part of the cumulative baseline.

Visualisations

5.5.12 One visualisation is proposed to inform and support the LVIA. The visualisation location is proposed to be from the Bowside area (approximate grid reference NC 83071 61060) and would be representative of the visual appearance of the Proposed Development from properties and the Scottish Hill Track recreational route in this area. The photomontage would be produced to meet current THC[9] and NatureScot[10] standards.

5.6 Issues to be Scoped Out

5.6.1 Given its derelict status and as it is anticipated to be demolished to enable construction of the consented Strathy Wood substation, it is proposed that potential visual receptors at Braerathy Lodge would not be included in the visual assessment.

[9] The Highland Council (2016) Visualisation Standards for Wind Energy Developments
[10] NatureScot (2017) Visual Representation of Wind Farms (version 2.2)

6. ECOLOGY AND NATURE CONSERVATION

6.1 Introduction

6.1.1 This section of the Scoping Report provides an overview of existing data available to identify the ecological baseline conditions, the potential effects associated with the Proposed Development and the proposed scope of assessment methodology to be considered in the EIA Report.

6.2 Consultation with NatureScot

Bats

6.2.1 NatureScot were consulted in March 2023 regarding the suitability of existing bat survey data to support possible grid connections between proposed, consented and existing wind farms in the Armadale, Strathy and Melvich areas and the existing Connagill Substation, located in Strath Halladale. A summary of the existing data was included in the consultation letter issued to NatureScot together with a briefing note detailing the full results of 2022 automated bat detector surveys completed by RPS for the proposed Strathy South Grid Connection.

6.2.2 In their response (via e-mail dated 17th April 2023), NatureScot agreed that further field surveys were unnecessary. They further advised that, where surveys are beginning to get 'old' and there is a likelihood of bat activity, further work should be undertaken, but considered that, as things currently stand, existing survey information (together with wind farm data recently submitted to national databases) could be relied upon to inform an impact assessment.

Other Protected Species

6.2.3 Further consultation with NatureScot took place in May 2023 regarding the suitability of existing terrestrial protected species survey data to support possible grid connections between proposed, consented, and existing wind farms in the Armadale, Strathy and Melvich areas and the existing Connagill Substation, located in Strath Halladale. A summary of the existing data available at that time was included in the consultation letter issued to NatureScot.

6.2.4 In their response (via e-mail dated 08 June 2023), NatureScot agreed that existing data on terrestrial protected species was sufficient to inform an assessment and further surveys for terrestrial protected species were not required.

6.3 Baseline Conditions

Statutory Sites

6.3.1 A search for the following statutory sites of ecological importance was completed, using Geographic Information System (GIS) data available via the NatureScot SiteLink website[11]:

- Sites of International Importance, i.e., SACs and Ramsar sites within 10 km of the Proposed Development; and
- Sites of Special Scientific Interest (SSSIs) designated for ecological features within 2 km of the Proposed Development.

6.3.2 A summary of the designated sites identified within these search areas are presented in **Table 6.1** and displayed on **Figure 4.**

[11] https://sitelink.nature.scot/home [Accessed October 2023].

Table 6.1: Statutory Sites of Ecological Importance within 10 km (SACs) and 2 km (SSSIs) of the Proposed Development, listed in order of proximity.

Name	Designation	Distance to nearest part of Proposed Development	Qualifying Non-avianFeatures
Caithness and Sutherland Peatlands	SAC	0 km (overlaps the Proposed Development)	Annex I habitats of the EC Habitats Directive that are a primary reason for site designation: • Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or of the *Isoëto-Nanojuncetea* (Clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels); • Natural dystrophic lakes and ponds (Acid peat-stained lakes and ponds (also known as 'dubh lochans')); and • Blanket bogs (Priority feature). Other Annex I habitats present as a qualifying feature but not a primary reason for designation: • Northern Atlantic wet heaths with *Erica tetralix* (Wet heathland with cross-leaved heath); • Transition mires and quaking bogs (Very wet mires often identified by an unstable 'quaking' surface (also known as ladder fen)); and • Depressions on peat substrates of the *Rhynchosporion*. Annex II species that are a primary reason for site designation: • Otter (*Lutra lutra*); and • Marsh saxifrage (*Saxifraga hirculus*) *Source: Joint Nature Conservation Committee (JNCC) (2015a)[12].*
Caithness and Sutherland Peatlands	Ramsar site	0 km (overlaps the Proposed Development)	The site qualifies under Ramsar criterion 1 by virtue of it containing a variety of wetland types: • Blanket bog; • Mire communities; • Oligrotrophic lochs; • Dystrophic lochs; • Lochans and pools; and • Wet heath. The site also qualifies under Ramsar criterion 2 as it supports a number of rare species of wetland plants and animals:

[12] JNCC (2015a). Natura 2000 - *Standard Data Form, Site UK0013602: Caithness and Sutherland Peatlands*. Available online at: https://jncc.gov.uk/jncc-assets/SAC-N2K/UK0013602.pdf [Accessed October 2023].

Name	Designation	Distance to nearest part of Proposed Development	Qualifying Non-avianFeatures
			• Bog orchid (*Hammarbya paludosa*); • Lindberg's bog-moss (*Sphagnum lindbergii*); • Olive bog-moss (*Sphagnum majus*); • *Oreodytes alpinus* (a water beetle species)[13]; • Freshwater pearl mussel (*Margaritifera margaritifera*)[14]; and • Otter. *Source: NatureScot (2023)[15,16]*
West Halladale	SSSI[17]	0 km (overlaps the Proposed Development)	Non-avian qualifying features[18] • Blanket bog. *Source: NatureScot (Undated a)[19]*
Strathy Bogs	SSSI[17]	1.36 km to the southwest	Qualifying features: • Blanket bog. *Source: NatureScot (Undated b)[20]*
Lochan Buidhe Mires	SSSI[17]	1.88 km to the west	Non-avian qualifying features[18]: • Blanket bog. *Source: NatureScot (Undated c)[21]*
Strathy Point	SAC	5.06 km to the north	Annex I habitat of the EC Habitats Directive that is a primary reason for site designation: • Vegetated sea cliffs of the Atlantic and Baltic Coasts (Vegetated sea cliffs). *Source: JNCC (2015b)[22].*

[13] Strathmore Peatlands SSSI underpins the *Oreodytes alpinus* feature[15].

[14] Freshwater pearl mussel occur in the River Naver SAC and the River Borgie SAC, both of which overlap the Ramsar site and are an integral part of the Ramsar site's blanket bog, mire and moorland system[15].

[15] NatureScot (2023) Ramsar Convention on Wetlands of International Importance Especially as Waterfowl Habitat (2023). Citation for Ramsar site (Kampala criteria, 2005) Caithness and Sutherland Peatlands (UK13003). Available online at: https://sitelink.nature.scot/site/8412 [Accessed October 2023].

[16] The NatureScot SiteLink website (https://sitelink.nature.scot/site/8413#features), Ramsar site information sheet (available via the SiteLink website (https://sitelink.nature.scot/site/8412 and last updated on 12/05/2005) and (amended) Ramsar site citation (available via the SiteLink website and adopted on 22/08/2023) contain different information regarding qualifying features of the Caithness and Sutherland Peatlands Ramsar site; the latter document is assumed to be contain the most up-to-date information.

[17] Forms part of the Caithness and Sutherland Peatlands SAC.

[18] Qualifying ornithological features are includes in Table 7.1.

[19] NatureScot (Undated a). *Citation West Halladale Site of Special Scientific Interest Highland (Sutherland)*. Available online at: https://sitelink.nature.scot/site/1607 [Accessed October 2023].

[20] NatureScot (Undated b). *Citation Strathy Bogs Site of Special Scientific Interest Highland (Sutherland)*. Available online at: https://sitelink.nature.scot/site/1494 [Accessed October 2023].

[21] NatureScot (Undated c). *Citation Lochan Buidhe Mires Site of Special Scientific Interest Highland (Sutherland)*. Available online at: https://sitelink.nature.scot/site/8218 [Accessed October 2023].

[22] JNCC (2015b). Natura 2000 - Standard Data Form, Site UK0013602: Strathy Point. Available online at: https://sac.jncc.gov.uk/site/UK0030066 [Accessed October 2023].

6.3.3 Although the Proposed Development footprint is partly within the Caithness and Sutherland Peatlands SAC and Ramsar site and the West Halladale SSSI, the area of overlap is 58.50 ha, which represents 0.04 % of both the SAC (143,561.47 ha**Error! Bookmark not defined.**) and Ramsar site (145,960.53 ha[23]), and 0.68 % of the S SSI (8,658.85 ha[19]). Additionally, the area of overlap is at the very edge of the designations, within habitats that are unlikely to be pristine due to existing infrastructure (the access track).

6.3.4 It is also noted that the peatlands of Caithness and Sutherland form the Flow Country, which is a candidate World Heritage Site (WHS) due to the quality and extent of bog habitat present. Much of the proposed WHS coincides with the Caithness and Sutherland Peatlands SAC and SPA designations and there is a small overlap between the Proposed Development footprint and the WHS.

Habitats

6.3.5 A National Vegetation Classification (NVC) survey was completed in October 2022 to 'ground-truth' existing historic data recorded between 2009 and 2013 and to fill in any gaps in survey coverage.

6.3.6 The existing dataset overlaps with the Proposed Development with the exception of two very small gaps in coverage, one at the northern end and one in the southeast.

6.3.7 The Proposed Development footprint comprises a mosaic of habitats, predominantly blanket bog and wet heath (see **Figure 5**). The majority of blanket bog habitats correspond to the M17 *Trichophorum germanicum-Eriophorum vaginatum* mire, with some stands classified to the M17a *Drosera rotundifolia-Spahgnum* species or the M17b *Cladonia* species sub-communities. Smaller areas of M20 *Eriophorum vaginatum* and M25 *Molinia caerulea-Potentilla erecta* mire were also identified. The wet heath consisted of M15 *Trichophorum germanicum-Erica tetralix* mire, with the M15c *Cladonia* species sub-community most frequent. Adjacent stands of M25a *Molinia caerulea-Potentilla erecta* mire, *Erica tetralix* sub-community, were likely to represent modified wet heath habitat.

6.3.8 Smaller stands of other habitats included areas of MG9 *Holcus lanatus-Deschampsia cespitosa* damp grassland and MG10 *Holcus lanatus-Juncus effusus* rush-pasture in the south of the Proposed Development, alongside areas of plantation and clear-fell. Stands of bracken (U20 *Pteridium aquilinum-Galium* saxatile community) were present along the sides of streams, and areas of acid flush corresponding to the M6 *Carex echinate-Sphagnum fallax/denticulatum* mire community were recorded crossing the Proposed Development in places, some classified as the M6c *Juncus effusus* sub-community. Occasional stands of W23 *Ulex europaeus-Rubus fruticosus* gorse scrub were identified, and fragments of H10 *Calluna vulgaris-Erica cinerea* dry heath, W1 *Salix cinerea-Galium palustre* scrub, and U4b *Festuca ovina-Agrostis capillaris-Galium saxatile* dry acid grassland, *Holcus lanatus-Trifolium repens* sub-community were also recorded in very limited quantities.

Protected Species

6.3.9 Protected species surveys for otter, water vole (*Arvicola amphibius*) and bat species were completed between August and October 2022 and much of the survey area coincided with the Proposed Development.

6.3.10 Four otter spraints and four otter couches were recorded along the River Strathy within the survey area; however, no holts were identified along this watercourse. No evidence of water vole was recorded within the survey area.

[23] NatureScot (2023) Caithness and Sutherland Peatlands RAMSAR. https://sitelink.nature.scot/site/8412 [Accessed November 2023].

6.3.11 Three bat species were recorded during automated detector surveys completed in 2022: common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*P. pygmaeus*) and *Myotis* bat species. Common pipistrelle was the species recorded most frequently, with the highest levels of activity approximately 700 m northeast of Braerathy Lodge near the southern end of the Proposed Development. Levels of bat activity by other bat species and at other survey locations were considered to be low.

6.3.12 In addition to bat species, areas of woodland and woodland edge habitat could provide suitable habitat for badger (*Meles meles*), pine marten (*Martes martes*) and wildcat (*Felis silvestris*), but the Proposed Development is outside the current range of red squirrel (*Sciurus vulgaris*). Signs of badger and pine marten have been recorded at other existing and proposed development sites in the area.

6.3.13 Based on the location of the Proposed Development, no European protected reptile or amphibian species are likely to be present. It is possible that other protected reptile species, such as common lizard (*Zootoca vivipara*) and potentially adder (*Vipera berus*), could be present, particularly in heathland and moorland habitats.

6.3.14 A 10 m buffer will be maintained between construction works and watercourses, including the River Strathy. Additionally, SHE Transmissions GEMPs (specifically Working in, or near Watercourses) will be adhered to throughout construction. As such, no habitat loss or pollution effects on any watercourses are anticipated and there is not considered to be any pathway for direct or indirect effects on aquatic species, including fish species and freshwater pearl mussel.

6.3.15 Where available, recent, and historical protected species datasets from surveys at existing and proposed developments in the area will be reviewed as part of a desk-based study, which will be used to inform the Ecological Impact Assessment (EcIA).

6.3.16 As agreed through consultation with NatureScot (section 6.2), no further surveys for protected species are proposed.

6.4 Potential Effects

6.4.1 Potential effects of the Proposed Development on Important Ecological Features (IEFs) are considered to comprise:

- Temporary or permanent direct or indirect loss of Annex I habitats, including qualifying habitat features of the Caithness and Sutherland Peatlands SAC and Ramsar site and West Halladale SSSI, and/or other sensitive habitats such as groundwater-dependent terrestrial ecosystems (GWDTEs);
- Temporary or permanent direct or indirect damage, change and/or fragmentation of Annex I habitats, including qualifying habitat features of the Caithness and Sutherland Peatlands SAC and West Halladale SSSI, and/or other sensitive habitats such as GWDTEs;
- Temporary or permanent loss of, modification or disturbance to protected species foraging areas and commuting routes used by protected species, including qualifying features of the Caithness and Sutherland Peatlands SAC;
- Accidental killing or injury of protected species, including qualifying features of the Caithness and Sutherland Peatlands SAC;
- Accidental damage or destruction of protected habitats (such as badger holts or otter setts) used by species, including qualifying features of the Caithness and Sutherland Peatlands SAC;
- Noise and/or visual disturbance and/or displacement of protected species; and
- Indirect impacts on habitats (and protected species reliant upon these habitats) due to accidental contamination/pollution of groundwater and/or watercourses.

6.4.2 Potential impacts are generally limited to the construction phase and are anticipated to be largely temporary, low magnitude and localised. The potential for significant effects on IEFs can be avoided or minimised through appropriate mitigation, as detailed below.

6.5 Mitigation and Enhancement

6.5.1 Embedded mitigation will include:

- Site design to minimise loss and damage to sensitive habitats; and
- Good practice measures during construction to protect IEFs and ensure compliance with relevant legislation, including measures to avoid pollution and prevent harm to protected species.

6.5.2 If the EcIA identifies any potential impacts from the Proposed Development that are predicted to have a significant adverse effect on IEFs, additional mitigation measures will be detailed within the Ecology Chapter of the EIA Report to address these. Where appropriate, ecological monitoring and/or enhancement measures will also be identified.

6.5.3 As set out in sub-section 2.5.4, a Construction Environmental Management Plan (CEMP) will be produced, which will capture all mitigation measures required to be implemented on Site in respect of IEFs, both as a result of the outcome of the EcIA and in order to comply with relevant legislation mentioned above. The implementation and audit of these measures will be overseen by an Environmental Clerk of Works (ECoW).

6.5.4 Additionally, as part of the EcIA, opportunities to enhance biodiversity will be identified, with the aim of achieving biodiversity net gain. This will include preparation of an outline Habitat Management Plan (HMP), which will take into account HMPs for other developments in the surrounding area.

6.6 Proposed Scope and Assessment Methodology

6.6.1 The EIA Report will include an Ecological Impact Assessment (EcIA). This will consider the potential direct, indirect and cumulative effects that the construction and operation of the Proposed Development could have on any identified IEFs scoped into the assessment.

6.6.2 Although decommissioning may also result in effects on IEFs, the level of impact would depend on the habitats and species present at the time of decommissioning, which cannot be reliably predicted. It is proposed, therefore, that potential effects on IEFs during the decommissioning phase of the Proposed Development are scoped out of the assessment. However, as decommissioning activities are generally of a similar type and intensity as construction activities, it is considered that the potential effects of decommissioning would be similar in nature to the potential effects of construction, with the exception that habitat would likely be restored.

6.6.3 The EcIA will be completed in accordance with Chartered Institute of Ecological and Environmental Management (CIEEM) guidance on EcIA[24]. This will include the following stages:

- A desk-based review of existing data will be completed to identify IEFs that could be affected by the construction and operation of the Proposed Development. IEFs will be assigned a geographic level of importance based on their conservation status, population / assemblage trends and other relevant criteria.
- Potential impacts from the Proposed Development will be identified and characterised (e.g., extent, magnitude, duration, reversibility, timing and frequency).

[24] CIEEM (2018) *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine*, version 1.2. Chartered Institute of Ecology and Environmental Management, Winchester.

- In addition to assessing potential effects on IEFs resulting from the Proposed Development alone, the EcIA will include an assessment of potential cumulative effects on IEFs resulting from the Proposed Development in combination with other relevant developments (existing, consented and proposed) in the surrounding area.
- The EcIA will assume that the embedded mitigation outlined in section 6.55 will be fully implemented. As noted in section 6.5, where necessary, additional mitigation measures will be recommended to address any adverse impacts and, where appropriate, ecological monitoring and/or enhancement measures will also be identified.

6.6.4 The EcIA will focus on potential effects from construction and operation of the Proposed Development upon IEFs identified during the review of desk-based information. It is considered that any decommissioning effects to IEFs would be of a similar or lesser extent to those of construction, and these would be considered at the time of decommissioning.

Habitats Regulations Appraisal (HRA)

6.6.5 Due to the potential for adverse effects on certain qualifying features of the Caithness and Sutherland Peatlands SAC and Ramsar site, under the Conservation of Habitats and Species Regulations (2017) ('the Habitats Regulations'), it is likely that the Competent Authority will be required to complete a Habitats Regulations Appraisal (HRA). To inform the HRA process, a shadow HRA report will be prepared to identify the types of effects that the Proposed Development may have, either alone or in combination with other plans and projects, on the qualifying interests of the site, and assess whether a Likely Significant Effect (LSE) can be discounted with respect to the qualifying interest features of the site.

6.6.6 Where it is determined that an LSE is possible, the competent authority will be required to carry out an Appropriate Assessment (AA) to assess the implications of the Proposed Development in respect of the conservation objectives of the Caithness and Sutherland Peatlands SAC and Ramsar site. If an AA is required, information to inform this assessment will be included within the shadow HRA report.

6.7 Issues to be Scoped Out

6.7.1 It is proposed that potential effects of the Proposed Development on marsh saxifrage, which is a qualifying feature of the Caithness and Sutherland Peatland SAC, are scoped out of the assessment. Marsh saxifrage colonies are found in wet flushes within the blanket bog in two parts of the SAC (one within Shielton Peatlands SSSI and one near Loch Ruard on the boundary of Blar nam Faoileag SSSI and Coire na Beinne Mires SSSI) both of which are more than 30 km to the southeast of the Proposed Development (NatureScot, 2021[25]).

6.7.2 Marsh saxifrage is only found where green flushes of vegetation form within this SAC. This habitat is unusual within the SAC and is markedly different from the surrounding, heathery vegetation. There is not considered to be any pathway for any effect on marsh saxifrage colonies within the SAC due to direct or indirect impacts from the Proposed Development.

6.7.3 It is further proposed that potential impacts on the Strathy Point SAC are scoped out as, based on the separation distance and qualifying features of the SAC, there is not considered to be any pathway for effects.

6.7.4 Additionally, all IEFs identified in the EcIA as being of Local or lower importance, and/or for which there is not considered to be any potential for significant effects from the Proposed Development, will be scoped out of the assessment.

[25] NatureScot (2021). Caithness and Sutherland Peatlands Special Area of Conservation (SAC) Conservation Advice Package. Available online at: https://sitelink.nature.scot/site/8218 [Accessed October 2023].

6.7.5 As noted in Section 6.3.14, there is not considered to be any pathway for direct or indirect effects of the Proposed Development on aquatic species, including fish species and freshwater pearl mussel. It is therefore proposed that potential effects of the Proposed Development on aquatic ecological features, including those that are qualifying features of the Caithness and Sutherland Peatlands SAC and Ramsar site, are scoped out of the assessment.

7. ORNITHOLOGY

7.1 Introduction

7.1.1 This section of the Scoping Report provides an overview of existing data available to identify the ornithological baseline conditions, the potential effects associated with the Proposed Development and the proposed scope of assessment methodology to be considered in the EIA Report.

7.2 Baseline Conditions

Statutory Sites

7.2.1 A search for the following statutory sites of ornithological importance was completed, using GIS data available via the NatureScot SiteLink website[11]:

- Sites of international ornithological importance, i.e., Special Protection Areas (SPAs) and Ramsar sites within 10 km of the Proposed Development;
- Sites of international ornithological importance designated for geese within 20 km of the Proposed Development; and
- SSSIs designated for ornithological features within 2 km of the Proposed Development.

7.2.2 A summary of the designated sites identified within these search areas is presented in **Table 7.1** and displayed on **Figure 4.**

Table 7.1: Statutory Sites of Ornithological Importance within the Search Areas Specified Above, listed in order of proximity

Name	Designation	Distance to nearest part of Proposed Development	Qualifying Features
Caithness and Sutherland Peatlands	SPA	0 km (overlaps the Proposed Development)	Qualifies under Article 4.1 of the Directive (79/409/EEC) by regularly supporting breeding populations of European importance of the following Annex I species: • Golden plover (Pluvialis apricaria); • Dunlin (Calidris alpina subspecies schinzii). • Wood sandpiper (Tringa glareola); • Red-throated diver (Gavia stellata); • Black-throated diver (Gavia arctica); • Golden eagle (Aquila chrysaetos); • Hen harrier (Circus cyaneus); • Short-eared owl (Asio flammeus); and • Merlin (Falco columbarius). Further qualifies under Article 4.2 of the Directive (79/409/EEC) by regularly supporting populations of European importance of the following migratory species:

Name	Designation	Distance to nearest part of Proposed Development	Qualifying Features
			• Wigeon (Mareca penelope); • Common scoter (Melanitta nigra); and • Greenshank (Tringa nebularia). Source: NatureScot (2023a)[26].
Caithness and Sutherland Peatlands	Ramsar site	0 km (overlaps the Proposed Development)	The site further qualifies under Ramsar criterion 2 by supporting (breeding) populations of the following species: • Golden plover; • Dunlin (subspecies *schinzii*). • Wood sandpiper; • Red-throated diver; and • Black-throated diver; The site also qualifies under Ramsar criterion 4 by supporting the following waterbird species at a critical stage in their life cycle: • Wigeon (breeding); • Common scoter (breeding); and • Greenshank (breeding). Source[27]: Ramsar Convention on Wetlands of International Importance Especially as Waterfowl Habitat (2023)[28].
West Halladale	SSSI[29]	0 km (overlaps the Proposed Development)	Ornithological qualifying features[30]: • Breeding black throated diver; • Breeding common scoter; and • Breeding bird assemblage. Source: SSSI Citation[19].
Lochan Buidhe Mires	SSSI[29]	1.88 km to the west	Ornithological qualifying features[30]: • Breeding bird assemblage. Source: SSSI Citation[21].
North Caithness Cliffs	SPA	7.18 km to the northeast	Qualifies under Article 4.1 of the Directive (79/409/EEC) by regularly supporting a breeding population of European importance of the following Annex I species: • Peregrine (Falco peregrinus). Further qualifies under Article 4.2 of the Directive (79/409/EEC) by regularly supporting populations of European importance of the following migratory species:

[26] NatureScot (2023a). Citation for Special Protection Area (SPA) Caithness and Sutherland Peatlands (UK9001151). Available online at: https://sitelink.nature.scot/site/8476 [Accessed October 2023].

[27] The NatureScot SiteLink website (https://sitelink.nature.scot/site/8413#features), Ramsar site information sheet (available via the SiteLink website[11] and last updated on 12/05/2005) and (amended) Ramsar site citation (available via the SiteLink website[11] and adopted on 22/08/2023) contain different information regarding qualifying features of the Caithness and Sutherland Peatlands Ramsar site; the latter document is assumed to be contain the most up-to-date information

[28] Ramsar Convention on Wetlands of International Importance Especially as Waterfowl Habitat (2023). Citation for Ramsar site (Kampala criteria, 2005) Caithness and Sutherland Peatlands (UK13003). Available online at: https://sitelink.nature.scot/site/8412 [Accessed October 2023].

[29] Forms part of the Caithness and Sutherland Peatlands SPA.

[30] Qualifying non-avian ecological features are includes in Table 6.1.

Name	Designation	Distance to nearest part of Proposed Development	Qualifying Features
			• Kittiwake (Rissa tridactyla); • Common guillemot (Uria aalge); • Razorbill (Alca torda); • Puffin (Fratercula arctica); • Fulmar (Fulmarus glacialis); and • Breeding seabird assemblage. Source: NatureScot (2017)[31].
North Sutherland Coastal Islands	SPA	18.83 km to the northwest	Qualifies under Article 4.1 of the Directive (79/409/EEC) by regularly supporting, in winter, populations of European importance of the following Annex 1 species: • Barnacle goose (*Branta leucopsis*). Source: NatureScot (1999)[32].
Caithness Lochs	SPA and Ramsar site*	19.76 km to the east	Qualifies as an SPA under Article 4.1 of the Directive (79/409/EEC) by regularly supporting, in winter, populations of European importance of the following Annex 1 species: • Whooper swan (*Cygnus cygnus*) (winter peak mean of 240 in 1993/94-1997/98); and • Greenland white-fronted goose (*Anser albifrons flavirostris*) (winter peak mean of 440 in 1993/94-97/98). Further qualifies as an SPA under Article 4.2 of the Directive (79/409/EEC) by regularly supporting, in winter, a population of European importance of the following species: • Greylag goose (*Anser anser*; winter peak mean of 7,190 in 1993/94-1997/98). *Sources: NatureScot (1999b)[33]; Ramsar Convention on Wetlands of International Importance Especially as Waterfowl Habitat (2021)[34].*
*The boundaries of the Caithness Lochs SPA and Ramsar site are contiguous, and the qualifying features (and cited population sizes) are the same.			

[31] NatureScot (2017) Citation for Special Protection Area (SPA) North Caithness Cliffs (UK9001181) with marine extension. Available online at: https://sitelink.nature.scot/site/8554 [Accessed October 2023].
[32] NatureScot (199a) Citation for Special Protection Area (SPA) Citation for Public Issue: North Sutherland Coastal Islands, Highland (UK9001211). Available online at: https://sitelink.nature.scot/site/8559 [Accessed October 2023].
[33] NatureScot (1999b) Citation for Special Protection Area (SPA) Citation for Public Issue: Caithness Lochs, Highland Region (UK900171A). Available online at: https://sitelink.nature.scot/site/8477 [Accessed September 2023].
[34] Ramsar Convention on Wetlands of International Importance Especially as Waterfowl Habitat (2021). Citation for Ramsar site (Kampala criteria, 2005) Caithness Lochs (UK13004). Available online at: https://sitelink.nature.scot/site/8413 [Accessed September 2023].

Sensitive Bird Species

7.2.3 Ornithology surveys were carried out between October 2018 and August 2019[35], comprising flight activity surveys, black grouse (*Lyrurus tetrix*) surveys, breeding bird surveys, scarce breeding bird surveys and breeding diver surveys. The survey area was based on the optimal route option at that time, which was similar to the Proposed Development, with survey-specific buffers (500 m for breeding birds, 1.5 km for black grouse and breeding divers and 2 km for scarce breeding birds).

7.2.4 Further, scarce breeding bird surveys were completed between May and August 2022 covering a much larger area, the western part of which was the same as the previous (2018-19) surveys outlined above.

7.2.5 A range of bird surveys have also been completed for other existing, consented and proposed developments in the area and the survey areas for some of these partially overlap the Proposed Development, notably the operational Strathy North Wind Farm, where the most recent annual monitoring took place in 2019 and 2021[36].

7.2.6 Key results from the surveys outlined above are presented in **Table 7.2**, with breeding territories shown in **Confidential Figures 6 and 7**. A more detailed review of available recent and historical ornithology survey datasets from all relevant developments will be completed as part of a desk-based study, which will be used to inform the Ornithological Impact Assessment (OIA).

Table 7.2: Summary of key results from recently completed surveys for existing, consented and proposed developments with survey areas that partially overlap the Proposed Development

Development	Summary of completed surveys	Summary of key results[i]
Proposed Strathy South and Strathy Wood Grid Connections	Scarce breeding bird surveys (May-Jul 2022)	A single golden plover breeding territory within 500 m of the Proposed Development. A single common sandpiper (*Actitis hypoleucos*) breeding territory within 500 m of the Proposed Development[ii]. Two snipe (*Gallinago gallinago*) breeding territories within 500 m of the Proposed Development. A possible oystercatcher (*Haematopus ostralegus*) breeding territory within 500 m of the Proposed Development.
	Flight activity surveys (Oct 2018-Aug 2019)	Very low levels of flight activity between October and February, with a total of six flights by five target species: pink-footed goose (*Anser brachyrhynchus*), golden eagle, hen harrier, merlin, and peregrine. Ten hen harrier flights during late March, comprising displaying birds of both sexes. During breeding season surveys (defined by WSP as April to August) 34 hen harrier flights and low levels flight activity (seven flights in total) by five other target species: pink-footed goose, snipe, black-throated diver, greenshank and merlin.
	Black grouse lek surveys (Apr-May 2019)	No black grouse recorded.

[35] Note that a moorland fire occurred in the Strathy area on 13/05/2019 and burned for approximately five days; this directly affected the eastern half of the Strathy Wood baseline ornithology survey area.

[36] Note that breeding bird territory analysis has not been completed for all bird species recorded during the 2021 Strathy North ornithology surveys and additional breeding territories may have been present; the full dataset will be reviewed for the OIA.

Development	Summary of completed surveys	Summary of key results[i]
	Breeding bird surveys (Apr-Jul 2019)	Snipe and common sandpiper breeding territories recorded (numbers and locations unavailable). Greenshank heard calling early in the breeding season (location unavailable), but no nesting confirmed within survey area.
	Scarce breeding bird surveys (Apr-Jul 2019)	One confirmed and successful hen harrier nest within 2 km of the Proposed Development[iii]. A second confirmed hen harrier breeding territory within 2 km of the Proposed Development[iv]. This was likely abandoned following a moorland wildfire in May[35].
	Breeding diver surveys (Apr-Jul 2019)	A pair of black-throated diver bred within 2 km of the Proposed Development, with a single chick observed that did not survive to fledging[v]. There were no observations of breeding behaviour by red-throated diver within 2 km of the Proposed Development during the surveys.
Operational Strathy North Wind Farm	Flight activity surveys (Apr-Aug 2021 and 2019)	A total of 87 flights by 14 target species in 2021: greylag goose (six flights), pink-footed goose (two flights), mallard (*Anas platyrhynchos*; two flights), teal (*Anas crecca*; one flight), black-throated diver (one flight), curlew (*Numenius arquata*; one flights), dunlin (three flights), snipe (12 flights), greenshank (27 flights), red-throated diver (six flights), osprey (*Pandion haliaetus*; three flights), hen harrier (seven flights) white-tailed eagle (*Haliaeetus albicilla*; six flights) and merlin (ten flights). A total of 104 flights by 16 identified target species and two unidentified target species in 2019: greylag goose (four flights), pink-footed goose (one flight), unidentified goose species (two flights; one probably greylag goose and the other probably pink-footed goose), mallard (two flights), teal (two flights), oystercatcher (one flight), golden plover (one flight), curlew (three flights), dunlin (two flights), snipe (eight flights), greenshank (11 flights), red-throated diver (four flights), unidentified diver species (likely red-throated diver; one flight), golden eagle (one flight), hen harrier (54 flights), white-tailed eagle (one flight), merlin (four flights) and hobby (*Falco subbuteo*; two flights).
	Breeding raptor surveys (Mar-Aug 2021[36] and Apr-Aug 2019)	One hen harrier nest within 2 km of the Proposed Development in 2021, where a pair also nested (and fledged at least two chicks) in 2019[iii]. An additional potential hen harrier breeding territory[iv] was also identified within 2 km of the Proposed Development in 2019 (in the same location where a pair successfully bred in 2018). However, it was assumed this territory was abandoned due to the wildfire in mid-May[35] (it is possible that this pair occupied the nest described above making a second attempt at breeding). One merlin territory within 2 km of the Proposed Development in 2021 and one successful merlin nest (at a different location) in 2019.
	Moorland breeding bird surveys (Apr-Jul 2021[36] and 2019)	One common sandpiper territory within 500 m of the Proposed Development in 2019[ii].
	Breeding diver surveys (Jun-Aug 2021 and 2019); and Diver focal watches (Aug 2021 and Jul-Aug 2019)	Caol-loch A pair of black-throated diver bred successfully within 2 km of the Proposed Development in both 2019 and 2021. Loch nam Bò Uidhre A pair of black-throated diver bred successfully at a second location within 2 km of the Proposed Development in 2021[v]. There were no observations of breeding behaviour by red-throated diver within 2 km of the Proposed Development during the 2019 or 2021 surveys.

Development	Summary of completed surveys	Summary of key results[i]
[i] Including target species flights recorded during flight activity surveys, breeding wader territories within 500 m of the Proposed Development and breeding diver and Schedule 1 and/or Annex I-listed raptor territories within 2 km of the Proposed Development. [ii] A pair of common sandpiper breeding territory within 500 m of the Proposed Development was identified at the same location during the 2022 surveys for the proposed Strathy South Grid Connection completed by WSP and the 2019 surveys at Strathy North Wind Farm completed by RPS. [iii] Based on location, it is assumed that the hen harrier breeding territory recorded during the 2019 Strathy Wood Grid Connection surveys is the same as that recorded during the 2019 monitoring at Strathy North Wind Farm. [iv] These were in entirely separate locations rather than duplicate records of the same hen harrier territory. [v] A pair of black-throated diver breeding within 2 km of the Proposed Development was recorded during the 2019 surveys of the Proposed Development completed by WSP, with a single chick observed that did not survive to fledging. Successful breeding by a pair of black-throated diver at the same loch was also recorded during 2021 surveys at Strathy North Wind Farm completed by RPS.		

7.3 Potential Effects

7.3.1 Potential effects of the Proposed Development on Important Ornithological Features (IOFs) are considered to comprise the following:

- Temporary or permanent loss of or modification to habitats used for foraging or breeding by IOFs, including qualifying features of the Caithness and Sutherland Peatlands SPA and Ramsar site, during the construction phase;
- Accidental disturbance, damage or destruction of nests, eggs or chicks during the construction phase;
- Noise and/or visual disturbance and/or displacement (including barrier effects) of breeding or foraging IOFs, including qualifying features of the Caithness and Sutherland Peatlands SPA and Ramsar site during the construction phase;
- Indirect impacts on habitats used by IOFs due to accidental contamination/pollution of groundwater and/or watercourses during the construction phase; and
- Risk of mortality or injury to birds, including by qualifying features of the Caithness and Sutherland Peatlands SPA and Ramsar site, resulting from collision with, or electrocution from, the OHL, during the operational phase.

7.3.2 It is anticipated that potential disturbance during the construction phase and collision/electrocution risk during the operational phase will be the impacts posing the greatest risk to IOFs. However, disturbance impacts during construction are anticipated to be largely temporary and localised and the potential for significant effects on IOFs can be avoided or minimised through appropriate mitigation, as detailed below. Similarly, collision/electrocution risk can be minimised through careful design and use of appropriate mitigation techniques such as installation of line markers, as described below.

7.4 Mitigation

7.4.1 Embedded mitigation will include:

- Site design to minimise loss and damage to any important breeding and/or foraging sites used by IOFs; and
- Good practice measures during construction to ensure compliance with relevant legislation protecting all breeding birds (including those not identified as IOFs), as well as measures to avoid pollution.

7.4.2 If the OIA identifies any potential impacts from the Proposed Development that are predicted to have a significant adverse effect on IOFs, additional mitigation measures will be detailed within the Ornithology Chapter of the EIA Report to address these. For example, in accordance with NatureScot (2016) guidance[37], line markers may be installed on earth wires and/or conductors as appropriate to make them more visible to birds, thereby reducing the risk of collision. Additionally, “bird-friendly” power line designs may be used if appropriate to prevent electrocution, e.g., by using insulated components and/or large air gaps. Where appropriate, ornithological monitoring and/or appropriate habitat enhancement measures will also be identified.

7.4.3 As noted in sub-section 6.5.3, a CEMP will be produced, which will capture all mitigation measures required to be implemented on Site in respect of IOFs, both as a result of the outcome of the OIA and in order to comply with relevant legislation mentioned above. The implementation and audit of these measures will be overseen by an ECoW.

[37] NatureScot (2016). Guidance – Assessment and mitigation of impacts of power lines and guyed meteorological masts on birds.

7.5 Proposed Scope and Assessment Methodology

7.5.1 The EIA Report will include an Ornithological Impact Assessment (OIA). This will consider the potential direct, indirect and cumulative effects that the construction and operation of the Proposed Development could have on any identified IOFs scoped into the assessment.

7.5.2 Although decommissioning may also result in potential effects on IOFs, the level of impact would depend on the species assemblage present at the time of decommissioning, which cannot be reliably predicted. It is proposed, therefore, that potential effects on IOFs during the decommissioning phase of the Proposed Development are scoped out of the assessment. However, as decommissioning activities are generally of a similar type and intensity as construction activities, it is considered that the potential effects of decommissioning would be similar in nature to the potential effects of construction, with the exception that habitat would likely be restored and any displaced birds would be able to return to abandoned territories.

7.5.3 The OIA will be completed in accordance with CIEEM guidance on EcIA[24]. This will include the following stages:

- A desk-based review of existing data will be completed to identify IOFs that could be affected by the construction and operation of the Proposed Development. IOFs will be assigned a geographic level of importance based on their conservation status, population / assemblage trends and other relevant criteria.
- Potential impacts from the Proposed Development will be identified and characterised, e.g., extent, magnitude, duration, reversibility, timing and frequency.
- In addition to assessing potential effects on IOFs resulting from the Proposed Development alone, the OIA will include an assessment of potential cumulative effects on IOFs resulting from the Proposed Development in combination with other relevant developments (existing, consented and proposed) in the surrounding area.
- The OIA will assume that the embedded mitigation outlined in section 7.3.2 will be fully implemented. As noted in section 7.3.2, where necessary, additional mitigation measures will be recommended to address any adverse impacts and, where appropriate, ornithological monitoring and/or enhancement measures will also be identified.

Habitats Regulation Assessment

7.5.4 Due to the potential for adverse effects on qualifying features of the Caithness and Sutherland Peatlands SPA and Ramsar site, it is likely that the Competent Authority will be required to complete a HRA. To inform the HRA process, a shadow HRA report will be prepared to identify the types of effects that the Proposed Development may have, either alone or in combination with other plans and projects, on the qualifying interests of the site, and assess whether an LSE can be discounted with respect to the qualifying interest features of the site.

7.5.5 Where it is determined that an LSE is possible, the competent authority will be required to carry out an AA to assess the implications of the Proposed Development in respect of the conservation objectives of the Caithness and Sutherland Peatlands SPA and Ramsar site. If an AA is required, information to inform this assessment will be included within the shadow HRA report.

7.6 Issues to be Scoped Out

7.6.1 It is proposed that potential impacts on the North Caithness Cliffs SPA are scoped out, based on the separation distance and qualifying features, the majority of which are breeding seabird species not expected to make regular use of the Proposed Development site. Although the Proposed Development is located within suitable foraging habitat for peregrine, the Proposed Development site is located outwith the core foraging range for breeding peregrine (2 km; NatureScot, 2016[38]). As such, there is not considered to be any pathway for effects between the Proposed Development site and the SPA.

7.6.2 It is further proposed that potential impacts on the North Sutherland Coastal Islands SPA are scoped out. The SPA is designated for wintering barnacle goose, which has a core foraging range of 15 km (NatureScot, 2016[38]). As the SPA is located 18.82 km from the Proposed Development (at the closest point), there is not considered to be any pathway for effects.

[38] NatureScot. (2016). Assessing connectivity with Special Protection Areas (SPAs), Version 3.

8. GEOLOGY, SOILS AND WATER ENVIRONMENT

8.1 Introduction

8.1.1 This section of the Scoping Report provides an overview of the soils, geology and water environment (hydrology and hydrogeology), the potential effects associated with the construction and operation of the Proposed Development, and a summary of the proposed assessment methodology. It has been informed by previous surveys that have been undertaken nearby and present relevant information.

8.2 Baseline Conditions

8.2.1 As a consequence of previous nearby planning applications and developments, including Strathy Wood, Strathy North and Strathy South wind farm projects, the soils, geology and water environment are already well understood and characterised and these, as well as published information sources, have been used to describe the baseline conditions.

Soils, Geology and Hydrogeology

8.2.2 British Geological Survey (BGS) mapping indicates that the Proposed Development overlies the Kirtomy Gneisses, which comprise of semipelites and gneissose. Small extents of granite of the Scottish Highland Ordovician Minor Intrusion Suite are also noted beneath the Proposed Development. The bedrock is overlain by river terrace and alluvium deposits toward the south, hummocky glacial deposits, and peat within the centre and glaciofluvial deposits to the north.

8.2.3 Priority peatland mapping published by NatureScot indicates that approximately 2.5 km of the Proposed Development is located in areas of potential priority peatland (Class 1 and 2), see **Figure 8**. Peat probing has recorded peat depths of between 0 and 4.5 m near the Proposed Development. The deepest areas of peat are noted within the centre and northern extent of the Site within or near to the mapped areas of Class 1 priority peatland. Further targeted peat probing would be undertaken to support the assessment on peat, as required, filling any data gaps in the current peat depth dataset and assess the condition of the peat. This would be undertaken in consultation with the project ecologists.

8.2.4 The bedrock beneath has been classified by BGS as a low productivity aquifer where small amounts of groundwater may be present within the near surface weathered zone or secondary fractures. Shallow groundwater is likely to be present in the more permeable superficial deposits (alluvium, river terrace and glaciofluvial deposits) and is likely to be in hydraulic connectivity with the River Strathy.

Designated Sites and Hydrology

8.2.5 Review of the NatureScot SiteLink website confirms that majority of the Proposed Development is located within the West Halladale SSSI which is also part of the Caithness and Sutherland Peatland SAC, SPA and Ramsar site. The SSSI, SAC, SPA and Ramsar site has been designated for a breeding bird assemblage, otters and several freshwater and upland habitats including blanket bogs.

8.2.6 The Proposed Development is located within the surface water catchment of the River Strathy which flows generally northwards to the west of the Proposed Development. The Proposed Development will cross several tributaries of the River Strathy and the River Strathy itself at two locations.

8.2.7 SEPA flood mapping shows that the majority of the Proposed Development is not at considered to be at flood risk (from all sources) now or in the future. Part of the southern extent of the Proposed Development, particularly between the two proposed crossing points over the River Strathy, are noted to be at high risk of flooding from the river (10% annual exceedance probability).

8.2.8 Review of The Highland Council private water supply (PWS) database indicates that there is one private water supply located within 500 m of the Proposed Development, however, previous assessments have confirmed that this is no longer in use.

8.2.9 There are no surface water drinking protected areas within the vicinity of the Proposed Development.

8.3 Potential Effects

8.3.1 The construction and operation of the Proposed Development has the potential to result in the following effects without appropriate controls or mitigation:

Construction

- Disturbance and loss of peat deposits;
- Increased flood risk to areas downstream of the Proposed Development during construction through increased surface water runoff;
- Potential adverse change of surface water and groundwater flow paths and contribution to areas of peat and GWDTE, water dependent habitat and water supplies;
- Disturbance of watercourses via the construction of access tracks; and
- An adverse effect on surface water or groundwater quality from pollution, fuel, oil, concrete or other hazardous substances.

Operation

- adverse changes to surface water flow paths, watercourse discharge rates and volumes, and alteration to watercourse geomorphology;
- as a result of alteration to groundwater and surface water flow paths, an adverse effect on water abstractions and water dependant habitat;
- an adverse effect on surface water or groundwater quality from pollution, fuel, oil, concrete or other hazardous substances from site traffic associated with maintenance activities; and
- increased flood risk through increased surface water runoff from new impermeable areas.

8.4 Mitigation

8.4.1 Analysis and interpretation of data gathered during the assessment process would be used ensure that the Proposed Development is carefully sited to ensure potential effects on soils, geology and the water environment are minimised where practicable through design.

8.4.2 In addition, the Applicant has established best practice construction techniques and procedures that have been agreed with statutory consultees, including SEPA and NatureScot. These are set out within the Applicant's GEMPs. The Proposed Development would be constructed in accordance with these plans. A CEMP would also be developed and implemented. The CEMP would also outline measures to ensure that the works minimise the risk to soils, geology, groundwater and surface water, and water users.

8.4.3 Where necessary, additional mitigation measures to manage any residual risks will be identified.

8.5 Proposed Scope and Methodology of Assessment

8.5.1 An assessment of the potential impacts of the Proposed Development on the soils, geology, and the water environment would be undertaken with reference to relevant legislation, polices and best practice guidance, including, but not limited to:

- EC Water Framework Directive (2000/60/EC);

- National Planning Framework 4 (2023);
- Water Environment and Water Services (Scotland) Act 2003;
- Water Environment (Controlled Activities) Regulations 2011;
- Land Use Planning System – SEP Guidance Note 31 (Guidance on Assessing Impacts of Development Proposals on Groundwater Abstractions and Groundwater Dependant Terrestrial Ecosystems), Version 3, SEPA, 2017;
- Control of Water Pollution from Linear Construction Projects – Technical Guidance, C648, CIRIA, 2006;
- The SuDS Manual C753, 2015; and
- Environmental Good Practice on Site C741, CIRIA, 2015.

8.5.2 Further desk study would be undertaken to determine and confirm the baseline characteristics by reviewing available information relating to soils and peat, geology, hydrology, and hydrogeology such as groundwater resources, licensed and unlicensed groundwater and surface water abstractions, public and private water supplies, surface water flows, flooding, rainfall data, water quality and soil data. This would include review of published geological maps, Ordnance Survey maps, aerial photographs and site-specific data such as site investigation data, geological and hydrogeological reports, digital terrain models (slope plans) and geological literature.

8.5.3 The desk study will identify sensitive features which may potentially be affected by the Proposed Development and will confirm the geological, hydrogeological and hydrological environment. Where necessary, a further field programme of investigation will be undertaken to verify (or otherwise) the desk study. The desk study and field programme will be used to further inform the site design.

8.5.4 The hydrological assessment specialists will liaise closely with the project ecologists, geology / geotechnical specialists, and engineers to ensure that appropriate information is gathered to allow a comprehensive impact assessment to be completed.

8.5.5 Once the desk study is completed and sensitive soil and peat, geological and water features are confirmed an impact assessment would be undertaken to assess the potential effects on soils and peat, geology and the water environment as a result of the construction and operation of the Proposed Development.

8.5.6 Having regard to the nature of the Proposed Development and key baseline characteristics, at this early stage it is considered that the assessment would include:

- potential effects on priority peatland;
- potential effects on the hydrological regime, including water quality, flow and drainage;
- assessment of potential effects on water users and water sources;
- assessment of potential effects on designated sites;
- in consultation with the project geologists and ecologists, assessment of potential effects on water (including groundwater) dependant habitats, including peat habitat and GWDTE, if confirmed; and
- assessment of potential flood risk and drainage during construction and operation.

8.5.7 Consultation and data requests will be conducted with the following bodies:

- THC;
- SEPA;
- NatureScot;
- Scottish Water;

- Northern District Salmon Fisheries Board; and
- Flow Country Rivers Trust.

8.5.8 A qualitative risk assessment methodology would be used to assess the significance of the potential effects. Two factors would be considered: the sensitivity of the receiving environment and the potential magnitude should that potential impact occur.

8.5.9 This approach provides a mechanism for identifying the areas where mitigation measures are required, and for identifying mitigation measures appropriate to the risk presented by the Proposed Development. This approach also allows effort to be focused on reducing risk where the greatest benefit may result.

8.5.10 The sensitivity of the receiving environment (i.e., the baseline quality of the receiving environment as well as its ability to absorb the effect without perceptible change) and the magnitude of impacts would each be considered through a set of pre-defined criteria.

8.5.11 The sensitivity of the receiving environment together with the magnitude of the effect defines the significance of the effect, which would be categorised into levels of significance.

8.5.12 Regarding peat, in accordance with NPF4, the mitigation hierarchy would be applied so that impacts are avoided, or minimised as far as possible, and where they cannot be avoided appropriate measures would be proposed to safeguard peat and carbon rich soils. This would be clearly shown, and it is anticipated that the assessment would be supported by the following Technical Appendices:

- Outline Peat Management Plan (compliant with the requirements of NPF4); and
- Peat Landslide Hazard Risk Assessment.

8.6 Issues to be Scoped Out

8.6.1 It is proposed that the following elements are scoped out of the geology, soils and water environment assessment:

- Effects on geology as, with the exception of peat, no sensitive geological features have been identified within the proposed study area.
- A detailed Flood Risk Assessment (FRA). It is proposed a screening assessment of all flooding sources is presented in the assessment and areas shown to be at potential flood risk are shown on supporting drawings to the assessment.
- A Drainage Impact Assessment (DIA) whereby measures that would control the rate and quality of runoff would be specified in the assessment, with specific drainage measures provided in the CEMP.
- Water quality monitoring as water quality data is published by SEPA and can be used to characterise baseline water quality. However, if the assessment concludes that water quality monitoring is required prior to, during and post construction, this would be specified in the assessment.
- A Geomorphological Assessment, as photographs and records of key existing or baseline water features would be recorded and presented in the assessment.
- An assessment of potential cumulative effects. Regarding the Proposed Development, it is likely that mitigation measures would be proposed that would have a neutral effect or provide betterment compared to baseline conditions. Other developments would also be designed, developed, and managed in accordance with best practice, industry standards and relevant legalisation, planning policy and guidance regulated by statutory consultees. These standards ensure, with respect to the water environment, potential impacts are mitigated and controlled at source and therefore it is considered unlikely that there would be any significant cumulative impacts to report.

9. CULTURAL HERITAGE

9.1 Introduction

9.1.1 This section of the Scoping report provides a brief overview of the Cultural Heritage baseline conditions, the potential effects associated with construction and operation of the Proposed Development and the proposed scope of assessment methodology to be considered in the EIA Report. Field studies were undertaken in September 2021 for the Proposed Development to identify baseline sites and inform design studies.

9.2 Baseline Conditions

9.2.1 Baseline information on known cultural heritage assets recorded within the vicinity of the Proposed Development has been obtained during the route selection stages of the project from datasets curated by Historic Environment Scotland (HES) and the Highland Historic Environment Record (HER), as well as the results of survey work carried out in September 2021. Desk-based evaluation and field studies have identified the area of the Proposed Development to have a small number of sites of cultural heritage interest as described below.

Designated Heritage Assets

9.2.2 There are no designated heritage assets (i.e. Scheduled Monuments, Listed Buildings, Designed landscapes) within the Proposed Development. The closest cultural heritage designation is Armadale Broch, Scheduled Monument, located approximately 3.5 km to the north west.

Cultural Heritage Assets

9.2.3 Within the vicinity of the Proposed Development and surrounding area, the following non-statutory cultural heritage assets are recorded on the Highland Historic Environment Record (HER), as illustrated on **Figure 9**:

- Bowside: Hut circles, cultivation. HER ref. MHG9528, CANMORE 6923. Three hut circles located at NC 82883 60089, NC 82954 60036 and NC 82899 60105. The first two are located north of the stream, the Uidh nan Con Luatha while the third is on the south side.
- Reidhean a Bhainne (site work has ascertained that no visible associated structures lie within the Proposed Development route):
    - Hut Circle. HER ref. MHG9641, CANMORE 6811 at NC 82743 57519
    - Farmstead HER ref: MHG9640, CANMORE 6812 at NC 82760 57485.
- Brarathy: Township. HER ref. MHG9642, CANMORE 6810. At least 18 buildings with associated enclosures, centred on NC 8256 5716 and including the separate HER entry Strathy Forest: Farmstead, HER ref. MHG33017 at NC 8249 5644. All of the features of the township are located to the west of the River Strathy, partly within standing forestry to the north and partly within an area of felled forestry to the south.

9.3 Potential for Significant Effects

Direct Impacts

9.3.1 Features of two recorded heritage assets are located within the Proposed Development extent; Bowside Hut Circles and Brarathy Township. These assets could potentially be directly impacted (direct damage or disturbance) by construction of the OHL towers and access track spurs.

- Bowside Hut Circles: While there should be no direct damage to the visible features, there is the potential for disturbance of adjacent ground for purposes of access to the towers. This may lead to damage or destruction of minor associated features, both above ground and sub-surface, where the OHL passes the three hut circles and where the connection runs west to join the existing Strathy North 132 kV trident 'H' wood pole OHL.
- Brarathy Township: the OHL runs to the east of all known visible features of the township. There remains the low possibility of previously unrecorded minor associated features or sub-surface deposits. While there should be no direct damage to known features, disturbance of adjacent ground for purposes of access to the towers and erection of the cable line may lead to damage or destruction of these minor associated features.

9.3.2 The Hut Circle and Farmstead associated with the Reidhean a Bhainne asset are located to the west of the existing track and outwith the extents of the Proposed Development and therefore would not be directly impacted by the Proposed Development.

9.3.3 A follow up site visit would be carried out to these two recorded assets (Bowside Hut Circles and Brarathy Township) at alignment selection stage to identify any associated visible minor features and assess the potential for sub-surface remains. Direct impacts would be avoided where possible by careful placement of towers and access tracks. At construction stage, these assets would be marked off by an archaeological exclusion zone and, if required, archaeological watching briefs would be carried out during groundbreaking or disturbance works, in consultation with THC Historic Environment Team.

Indirect Impacts

9.3.4 Indirect visual impacts and impacts on settings are not anticipated for any designated heritage assets, with the nearest such asset being located over 3.5 km from the Proposed Development.

9.3.5 Impacts on setting are predicted for three non-designated assets: Bowside Hut Circles, Brarathy Township and Reidhean a Bhainne Hut Circle and Farmstead. The sensitivity of these assets to impacts on setting, the magnitude of these impacts and the significance of impact would be addressed in detail in the EIA Report. However, the impacts on setting are considered to be moderate to minor for these assets.

9.4 Proposed Scope and Methodology of Assessment

9.4.1 A cultural heritage assessment carried out in line with best practice guidance would form part of the EIA Report. The assessment would focus on recorded sites within the vicinity of the Proposed Development where it is considered that there is potential for significant effect to occur and would recommend mitigation measures where appropriate. This would include all non-designated features within 100 m of the OHL alignment (as listed in sub-section 9.2.3)) as well as all access tracks, site compounds and laydown areas.

Assessment Methodology

9.4.2 The assessment would be carried out with reference to the following guidance documents:

- Standard and Guidance for Historic Environment Desk-Based Assessment (Chartered Institute for Archaeologists, 2014);
- Planning Advice Note (PAN) 2/2011: Planning and Archaeology; and
- Highland Council's Standards for Archaeological Work, 2012.

9.4.3 Desk and field studies to identify the cultural heritage baseline for the Proposed Development have already been undertaken. The assessment of potential effects would involve the following further steps:

- Assessment of the heritage importance and sensitivity of each heritage asset;
- Assessment of the potential impact of proposed or predicted changes on the importance of the asset and resultant significance of effect; and
- Recommendations for mitigation where appropriate.

9.5 Issues to be scoped Out

9.5.1 It is not considered that the Proposed Development would give rise to any significant direct or indirect effects on designated heritage assets and as such it is proposed to scope these out of an assessment in the EIA Report.

10. TRAFFIC AND TRANSPORT

10.1 Introduction

10.1.1 This section of the Scoping Report provides an overview of the traffic and transport baseline conditions, the potential effects associated with the construction and operation of the Proposed Development, and the proposed assessment methodology to be considered in the EIA Report.

10.2 Baseline Conditions

10.2.1 The study area network for use in the assessment has been assumed to be the A836 between Thurso and Strathy. The study area is based upon the likely origin points for materials, staff and components required for use during the construction phase of the Proposed Development.

10.2.2 To fully capture the baseline traffic and transport conditions for the Proposed Development, the following would be undertaken:

- Traffic survey data for use in the assessment would be obtained from the UK Department of Transport (DfT) traffic survey database[39] for the following links:
    - A836 at Strathy (Ref 40935);
    - A836 at Forss (Ref 10934); and
    - A9 at Thurso (Ref 40800).
- In addition to traffic flow data, traffic accident data for a five-year period for the A836 between Strathy and Thurso will be obtained from the public website source Crashmap[40].

10.2.3 It is anticipated that construction access for the Proposed Development will be taken from the existing Strathy North wind farm access junction off the A836, approximately 1 km to the east of Strathy, leading south along an existing access track. No significant works are proposed to this junction. Sensitive receptors to be considered in the assessment will include communities within the study area and users of the road links. All receptors, both communities and users, will be considered in detail.

10.3 Potential Effects

10.3.1 Potential impacts that may arise during the construction phase of the Proposed Development may include the following for users of the road and those resident along the delivery routes:

- Severance;
- Driver delay;
- Pedestrian delay;
- Non-motorised user amenity;
- Fear & intimidation;
- Road safety;
- Road Safety Audits; and
- Large loads.

10.3.2 The impacts on receptors within the study area would be reviewed during the construction phase, with a peak construction period assessment undertaken. This would review the maximum impact and presents a robust assessment of the effects of construction traffic on the local and trunk road networks.

[39] www.roadtraffic.dft.gov.uk
[40] www.crashmap.co.uk

10.3.3 The effects that would be considered will be based upon percentage increases in traffic flow and reviewed against the impacts noted above.

10.3.4 The assessment would consider the impact of construction traffic in a future year. Baseline traffic flows would be subject to Low National Road Traffic Growth factors to allow for the future year baseline.

10.4 Mitigation

10.4.1 Standard mitigation measures that are likely to be included in the assessment are:

- Production of a Construction Traffic Management Plan (CTMP); and
- A Staff Sustainable Access Plan.

10.4.2 Site Specific measures may also be required, depending upon the results of the assessment.

10.5 Proposed Scope and Methodology of Assessment

10.5.1 A Transport Assessment (TA) would be provided to review the impact of transport related matters associated with the Proposed Development. This would be appended to the EIA and would be summarised into a Transport and Access Chapter within the EIA.

10.5.2 The following policy and guidance documents would be used to inform the Transport and Access Chapter:

- Transport Assessment Guidance (Transport Scotland, 2012);
- Environmental Assessment of Traffic and Movement (Institute of Environmental Management and Assessment (IEMA) 2023);
- The Guidelines for the Environmental Assessment of Road Traffic (Institute of Environmental Assessment (IEA), 2023);
- National Planning Framework 4 (Scottish Government, 2023); and
- The Highland Council Guidance on the Preparation of Transport Assessments (2014).

10.5.3 The assessment would be undertaken in accordance with the IEMA Environmental Assessment of Traffic and Movement (2023). In accordance with this guidance, the scope of assessment would focus on:

- Potential impacts (of changes in traffic flows) on local roads and the users of those roads within the study area; and
- Potential impacts (of changes in traffic flows) on land uses and environmental resources fronting study area roads, including the relevant occupiers and users.

10.5.4 The main transport impacts would be associated with the movement of general HGV traffic travelling to and from the site during the construction phase of the development.

10.5.5 A Cumulative assessment of traffic effects from nearby projects that are of a significant scale (traffic flows which will increase by more than 10%) (and where traffic flows are publicly available) and have planning permission or consent under the Electricity Act 1989, would be undertaken.

10.5.6 Projects that are in scoping or that do not have planning permission or consent under the Electricity Act 1989 are not considered committed development and as such would not be included in the cumulative assessment.

10.5.7 The IEMA 2023 guidance notes two rules to be used as a screening process to identify the appropriate extent of the assessment area and likelihood of effects. These are:

- Rule 1 - Include highway links where traffic flows will increase by more than 30% (or the number of heavy goods vehicles will increase by more than 30%); and
- Rule 2 – Include highway links of high sensitivity where traffic flows have increased by 10% or more.

10.5.8 Where the predicted increase in traffic flow is lower than these thresholds, then the effect is considered insignificant given that daily variations in background traffic flow may fluctuate by this amount. Changes in traffic flow below this level predicted as a consequence of the Proposed Development would therefore be assumed to result in no discernible environmental impact, and as such, no further consideration would be given to the associated environmental effects.

10.5.9 Where construction traffic flows meet or exceed these thresholds, the significance of traffic and transport effects (including any cumulative development) would be determined by assessing the sensitivity of receptors against the magnitude of change to categorise significance as Major, Moderate, Minor or Negligible.

10.5.10 Potentially significant environmental effects would then be assessed where the thresholds as defined above are exceeded. Suitable mitigation measures would be proposed, where appropriate.

10.5.11 It is not anticipated that a formal Transport Assessment would be required as these are not generally considered necessary for temporary construction works. A reduced scope Transport Assessment is therefore proposed and would be submitted in support of the application.

10.6 Issues to be Scoped Out

10.6.1 Once operational, it is envisaged that the level of traffic associated with the Proposed Development would be minimal. It is considered that the effects of operational traffic would be negligible and it is proposed that the assessment of the operational phase is scoped out of the assessment.

10.6.2 As there are no Abnormal Indivisible Load (AIL) access required, an AIL assessment would be scoped out of the assessment.

10.6.3 The application is for permission in perpetuity and as such no decommissioning phase is included. Should the Proposed Development ever be decommissioned, the traffic generation levels associated with the dismantling phase would be less than those associated with the construction phase as some elements such as access roads would be left in place on the site. As such, the construction phase is considered the worst-case assessment to review the impact on the study area. An assessment of the decommissioning phase would therefore be scoped out of the assessment.

11. TOPICS TO BE SCOPED OUT OF ASSESSMENT

11.1 Introduction

11.1.1 This section provides the rationale for excluding the detailed assessment of certain topics from the EIA Report.

11.1.2 The topics proposed to be scoped out of the EIA Report would include:

- Forestry;
- Socio-economics, Recreation and Tourism;
- Land use and Agriculture;
- Population and Human Health;
- Air Quality and Climate Change; and
- Major Accidents and Disasters.

11.2 Forestry

Baseline

11.2.1 There is limited forestry within or in proximity to the Proposed Development.

11.2.2 The Proposed Development does not intersect or come into proximity to any conifer forestry plantation. The area of Strathy Forest includes felled conifer plantation which has been replaced with planted native broadleaved woodland and open land which is part of the consented Strathy Wood Wind Farm Habitat Management Plan. The Proposed Development includes open land and some sparse tree cover.

Potential for Significant Effects

11.2.3 The Native Woodland Survey of Scotland (NWWS) includes a small pocket of native woodland within the footprint of the Proposed Development near Strathy Wood substation however this is classified as open land.

Issues Scoped Out

11.2.4 As the Proposed Development would require felling of a minimal number of regenerated conifer trees and some planted broadleaved trees with no felling commercial forestry plantation, there is no requirement for a forestry assessment to be undertaken.

11.3 Socio-economics, Recreation and Tourism

Baseline Conditions

11.3.1 The economy within the region varies, though it is dominated by the tourism sector, with tourism related jobs representing up to 43% of regional employment[41].

11.3.2 The main access track within the Proposed Development, passing alongside and through Strathy Forest, is featured within the guidebook 'Scottish Hill Tracks'. This is a joint publication between the Scottish Rights of Way and Access Society and The Scottish Mountaineering Trust. The track forms part of Scottish Hill Track 344: Strath Halladale, which travels between Trantlebeg and Strathy.

[41] Highlands and Islands Enterprise (2023) https://www.hie.co.uk/our-region/our-growth-sectors/tourism

11.3.3 The A836 to the north of the Proposed Development forms part of the North Coast 500 tourist route and National Cycle Route (NCR) 1.

11.3.4 The Estates within the vicinity of the Proposed Development are managed for sporting activities (mainly deer stalking). The River Strathy is a popular river with anglers as it is a spate Salmon River which is fished as part of Bowside Fisheries based at Bowside Lodge. It enters the Pentland Firth at Strathy Bay.

Potential for Significant Effects

11.3.5 The potential effects associated with the Proposed Development on socio-economic factors would be related to the construction phase, including the creation of jobs and the indirect effects to the local supply chain and businesses. Other potential effects on recreation and tourism assets of infrastructure projects such as this can relate to the temporary or permanent disruption to recreational activities and sites, associated visual effects, and the consequential impact the proposed works on tourism related businesses.

11.3.6 An Outdoor Access Plan would be prepared, a draft of which would be included within the EIA, to demonstrate how continued access for recreational users along routes in the area, particularly Scottish Hill Track 344, would be managed during construction. The outdoor access plan would be prepared as part of the CEMP and signage would be erected at suitable locations to warn recreational users of construction traffic. The Applicant and Principal Contractor would consider the potential effects on tourism related businesses during the phasing of construction works. The potential for effects on the visual amenity of recreational and tourist receptors would be fully considered through the LVIA.

11.3.7 The Proposed Development would result in the creation of temporary jobs during the construction period. It is currently envisaged that a small proportion of the workforce would be from the local area. In addition, there would be potential beneficial effects through temporary increased spending on the supply of goods and services during construction. It is anticipated that these effects, while beneficial, are unlikely to be significant beyond the local area. In the long term, the Proposed Development would facilitate the increase in renewable generation planned for the area. These beneficial effects would be highlighted within the EIA, however no separate assessment chapter is proposed to cover these issues.

Issues Scoped Out

11.3.8 As the Proposed Development's potential effects on socio-economic factors would be related to the construction phase, there is no requirement for an assessment to be undertaken.

11.4 Land Use and Agriculture

Baseline Conditions

11.4.1 Areas of agricultural land are classified by The Macaulay System (now Hutton Institute) of Land Capability for Agriculture.[33] Based on this data most of the land within the vicinity of the Proposed Development is Class 5.3,land capable of supporting improved grassland. Other common land uses within the vicinity of the Proposed Development include shooting estate land, and electrical infrastructure including the operational Strathy North wind farm.

Potential for Significant Effects

11.4.2 Land use impacts associated with the Proposed Development are anticipated to be minimal. The construction work may result in some temporary loss of land or access restriction; however, it is considered that this can be adequately managed through wayleave agreements with the relevant landowners. The permanent loss of land to tower locations and cable sealing end compounds would be negligible and it would remain possible for grazing to continue around and under towers during their operational lifetime.

Issues Scoped Out

11.4.3 As construction effects would be minimal, and is would remain possible for grazing to continue around and under towers during their operational lifetime, it is thus proposed that this topic is scoped out of the EIA in its entirety.

11.4.4 Dialogue would be maintained by the Applicant and the Principal Contractor with landowners throughout the construction period to ensure any potential disruption as a result of the proposed works is kept to a minimum.

11.5 Population and Human Health

Baseline Conditions

11.5.1 The Proposed Development is located within a remote rural area. There are no main settlements that are within the general vicinity of the Proposed Development. The closest residential settlements are limited to include Strathy approximately 4 km to the north and Lednaguillin approximately 4.5 km to the north-west from the Proposed Development.

Potential for Significant Effects / Issues Scoped Out

11.5.2 Possible effects associated with construction and operation of the Proposed Development in relation to population and human health could include the below, and a summary is included for each point in relation to it being scoped out of further assessment:

- Noise and vibration during the construction phase:
    - Construction noise and vibration would be short term and intermittent and could be controlled through the implementation of a noise management plan, which would be developed as part of the CEMP prepared by the Principal Contractor. As such, and given the remoteness of construction activity for much of the project, no detailed assessment of construction noise and vibration associated with plant noise or traffic is proposed as part of the EIA.
- Operational effects of noise from the OHL:
    - Given the nature of the Proposed Development, its remoteness and distance from residential dwellings, no operational noise effects are expected.
- Electric and Magnetic Fields (EMF):
    - EMFs arise from electric charges and current flow. Transmission lines comply with the government policy of adopting the guidelines of the International Commission on Non-Ionising Radiation Protection (ICNIRP) on exposure to EMFs. SSEN believe that compliance with government policy on levels of exposure to EMFs, which in turn is based on the advice of the government's independent scientific advisers, the National Radiological Protection Board (NRPB) (now part of the Health Protection Agency), ensures the appropriate level of protection for the public from these fields. The NRPB keeps the results of EMF health studies under constant review to ensure that the guidelines for limiting exposure are based on the

best available scientific information. It is therefore concluded that no likely significant effect on human health associated with EMFs is predicted, and it is therefore proposed to scope this out of the assessment in its entirety from the EIA.

- Operational effects of additional electromagnetic interference to medium and long wave (AM) radio signals and TV signals:
    - Electromagnetic interference to medium and long wave (AM) radio signals at properties within close proximity to OHLs can be known to occur. Corona discharge is unlikely to cause significant interference to VHF reception (i.e. FM radio or digital radio and television which operate in the UHF range). Micro-gap discharge can affect digital television and radio reception but is not considered to be a source of long term annoyance as equipment is built and maintained to high standards and any such discharge would be the subject of remedial action. It is therefore proposed to scope out impacts to digital television, digital radio and FM radio reception from the EIA.
    - Potential effects from OHLs on TV signals can occur due to physical obstruction of the signal. The Proposed Development would not represent a significant obstruction and it is not anticipated that any adverse effects on TV reception would be experienced. The operation of high voltage OHLs can generate electromagnetic fields over a wide range of frequencies, from power (50 Hz) to radio frequencies. It is anticipated that the Proposed Development would emit low-level radio frequency interference (RFI) but that in practice little radio and television interference would arise, except when directly beneath the OHL. Therefore, this topic would be scoped out of the EIA in its entirety.

11.6 Air Quality and Climate

Baseline Conditions

11.6.1 Local air quality is a combination of background air quality, representative of general levels of pollution away from busy roads and industrial activity and added emissions from local emission sources such as road traffic. Due to the generally rural nature of the Proposed Development and sensitive receptors, contribution from road traffic and polluting industrial sources are minimal. Current and predicted annual average and short term NO_2 and PM_{10} within the region are compliant with all applicable objectives.

Potential for Significant Effects

11.6.2 Potentially significant effects which can arise on air quality and climate change from developments of this type relate primarily to generation and dispersal of dust and airborne particulate matter from plant, construction traffic and construction activities.

11.6.3 In the context of environmental appraisal, climate change is considered both in relation to the contribution of the proposed development to increasing or decreasing gaseous emissions with global warming potential (GWP), and in relation to climate change adaptation.

11.6.4 Emissions associated with the Proposed Development would be limited to temporary and short-term emissions of exhaust gases from vehicles and construction plant, and the potential for the release of carbon dioxide as a result of dewatering and exposing peat and peat soils during construction. Neither source is considered likely to be significant in terms of GWP.

11.6.5 With regard to climate adaptation, consideration would be given to the potential implications of climate change on the OHL design and the design of tower support structures (e.g. design for increased flood risk and adverse weather); however, no potential for significant impacts have been identified.

Issues Scoped Out

11.6.6 The Proposed Development has limited potential to impact upon air quality. There is a potential to give rise to some localised and temporary construction related releases associated with dust and construction traffic exhaust emissions. However, the nature of construction activities means these would be localised, short term and intermittent. Potential effects would further be minimised through the implementation of mitigation measures, in particular the project CEMP and relevant GEMPs.

11.6.7 The Proposed Development would contribute to connecting renewable electricity generation capacity to the transmission network, in turn displacing emissions associated with fossil fuel-based electricity generation elsewhere.

11.6.8 As such, this issue is proposed to be scoped out of the EIA and no assessment of air quality and climate change is proposed as part of this EIA Report.

11.7 Major Accidents and / or Disasters

Potential for Significant Effects

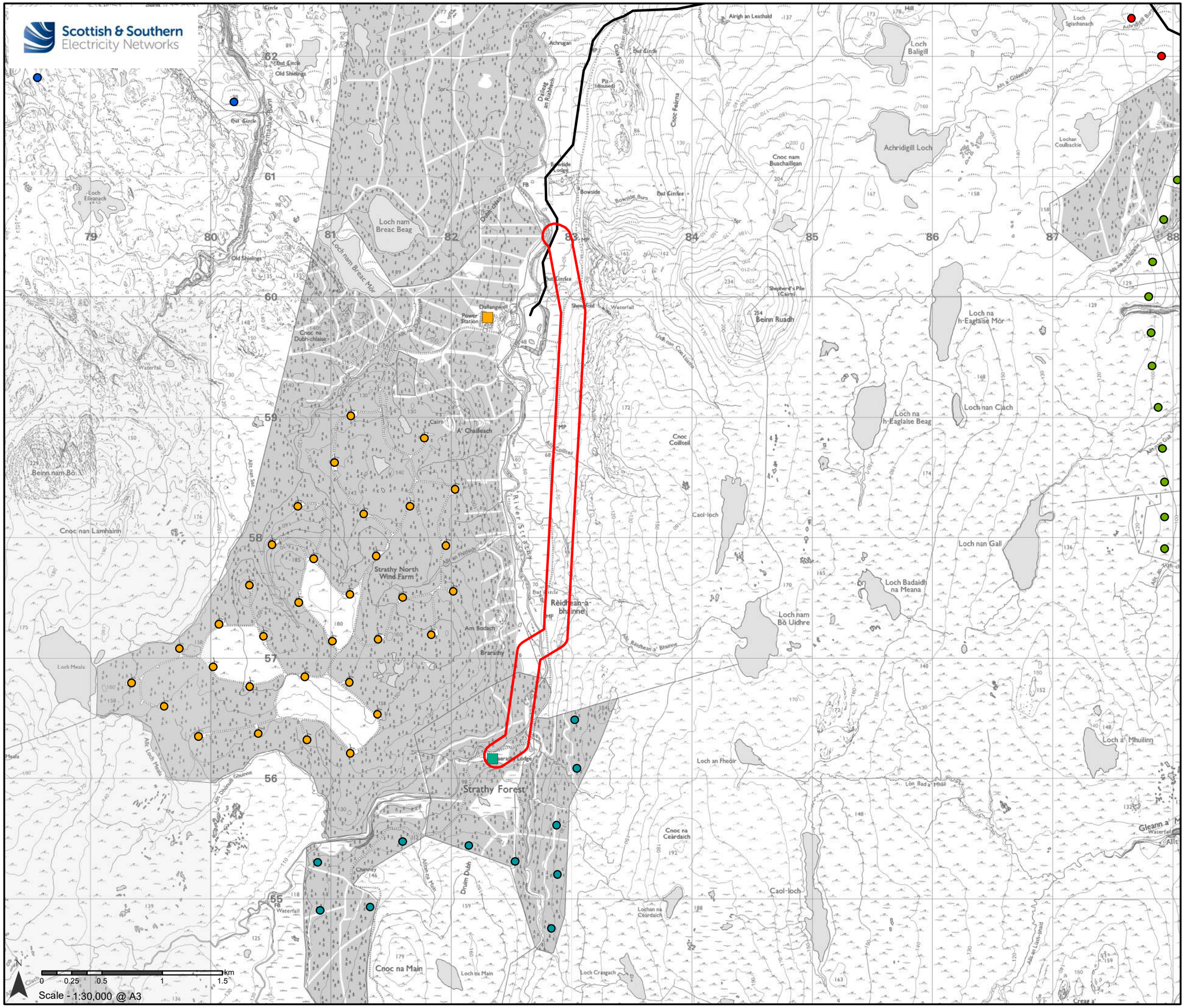
11.7.1 Potentially significant effects which can arise in relation to accidents and disasters from developments of this type include severe weather events and structural damage to towers, as well as the potential for risks during the construction phase.

Issues Scoped Out

11.7.2 Given the nature of the Proposed Development, the potential for effects related to the vulnerability to accidents and disasters are likely to be limited to those associated with unplanned power outages, due to extreme weather or structural damage. Crisis management and continuity plans are in place across the SSE Group. These are tested regularly and are designed for the management of, and recovery from, significant energy infrastructure failure events. Where there are material changes in infrastructure (or the management of it) additional plans are developed.

11.7.3 Furthermore, the Principal Designer would need to fully assess risks and mitigate as appropriate during the construction stage as part of the requirements of the Construction (Design and Management) Regulations (2015).

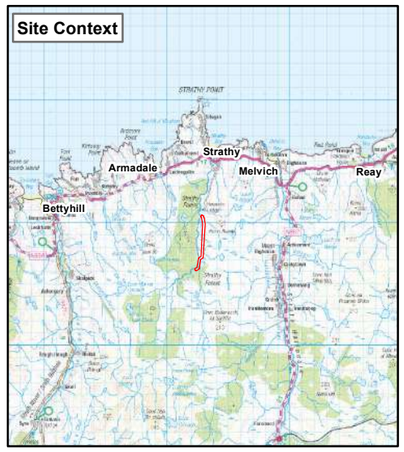
11.7.4 Potential significant effects relating to the vulnerability of the Proposed Development to accidents and disasters is therefore proposed to be scoped out of the EIA in its entirety.



Legend

- Proposed Development
- Strathy North 132 kV Trident Wood Pole OHL
- Strathy North Substation
- Strathy Wood Substation
- Strathy North Wind Turbine (Operational)
- Strathy Wood Wind Turbine (Consented)
- Armadale Wind Turbine (Proposed)
- Melvich Wind Turbine (Proposed)
- Kirkton Wind Turbine(Proposed)

Site Context



Project No:	LT559
Project:	Strathy Wood Wind Farm Grid Connection
Title:	Figure 1 - Site Context and Proposed Development
Drawn by:	KM
Date:	11/01/2024
Drawing:	122023-D-SCP1-1.0.0

Scottish & Southern Electricity Networks

Legend

- Proposed Development
- 2.5km LVIA Study
- Strathy North Substation
- Strathy Wood Substation

Indicative Zone of Theoretical Visibility (ZTV)

- Max. no. of Towers Visible : 19
- Min. no. of Towers Visible : 1

N

0 0.25 0.5 1 1.5 2 km

Scale - 1:40,000 @ A3

Project No:	LT559
Project:	Strathy Wood Wind FarmGrid Connection
Title:	Figure 2 - Proposed LVIA Study Area with Indicative Zone of Theoretical Visibility (ZTV)
Drawn by:	KM
Date:	11/01/2024
Drawing:	122023-D-SCP2-1.0.0

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LCT 144: Coastal Crofts and Small Farms

LCT 134: Sweeping Moorland and Flows

LCT 136: Rocky Hills and Moorland

LCT 142: Strath - Caithness and Sutherland

N

0 0.25 0.5 1 1.5 2 km

Scale - 1:40,000 @ A3

Legend

- Proposed Development
- 2.5km LVIA Study

Landscape Character Types (LCT)

- LCT 144: Coastal Crofts & Small Farms
- LCT 136: Rocky Hills and Moorland
- LCT 142: Strath - Caithness & Sutherland
- LCT 134: Sweeping Moorland and Flows

Project No:	LT559
Project:	Strathy Wood Wind Farm Grid Connection
Title:	Figure 3 - Landscape Character Types (LCT)
Drawn by:	KM
Date:	11/01/2024
Drawing:	122023-D-SCP3-1.0.0

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Strathy Point SAC

North Caithness Cliffs SPA

Lochan Buidhe Mires SSSI

Caithness and Sutherland Peatlands (SPA, SAC and Ramsar)

Strathy Bogs SSSI

West Halladale SSSI

Caithness and Sutherland Peatlands (SPA, SAC and Ramsar)

Caithness and Sutherland Peatlands (SPA, SAC and Ramsar)

N

0 0.5 1 2 3 4 5 km

Scale - 1:100,000@ A3

Legend

- Proposed Development
- 2km Buffer of the Proposed Development
- 10km Buffer of the Proposed Development

Environmental Designations and Constraints

- Special Area of Conservation (SAC)
- Special Protection Area (SPA)
- Site of Special Scientific Interest (SSSI)
- Ramsar site
- The Flow Country Candidate World Heritage Site

Project No: LT559

Project: Strathy Wood Wind Farm Grid Connection

Title: Figure 4 - Environmental Designations and Constraints

Drawn by: KM Date: 11/01/2024

Drawing: 122023-D-SCP4-1.0.0

Scottish & Southern Electricity Networks

Dallangwell

Sheepfold

Waterfall

Uidh nan Con Liath

N

0 0.15 0.3 km

Scale - 1:6,000 @ A3

Legend

Proposed Development

NVC dominant habitat

- H10
- H10+U20
- H12
- M15
- M15c
- M15c+H10
- M17
- M17a
- M17b
- M19
- M20
- M25
- M25a
- M25a:M15c:M17b
- M4
- M6
- M6c
- MG6b
- Plantation
- Pond
- Track
- U20
- U20a
- U4
- U4a/U20/M15c
- U4b
- W1
- W23a
- W4b

Project:	Strathy Wood Grid Connection
Title:	Figure 5 2022 NVC Survey Results Page 1 of 3
Drawn by:	AC
Date:	28/11/2023
Drawing:	ECO02856-0005-01

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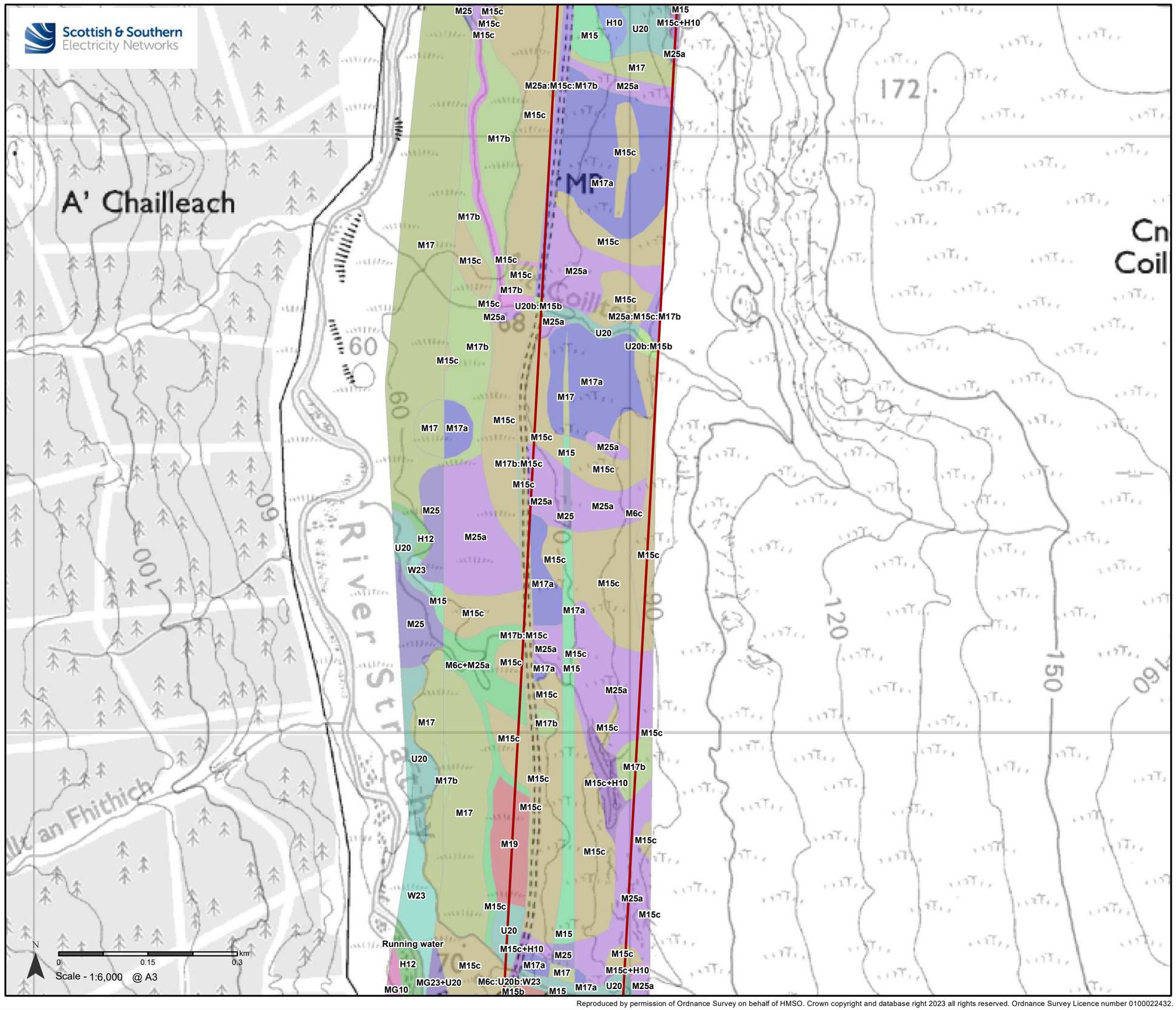

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Legend

Proposed Development

NVC dominant habitat

- H10
- H12
- M15
- M15+M25
- M15b
- M15c
- M15c+H10
- M17
- M17a
- M17b
- M17b:M15c
- M19
- M25
- M25a
- M25a:M15c:M17b
- M6c
- M6c+M25a
- M6c:U20b:W23
- MG10
- MG23+U20
- Running water
- U20
- U20b:M15b
- W23

RPS MAKING COMPLEX EASY

Project:	Strathy Wood Grid Connection
Title:	Figure 5 2022 NVC Survey Results Page 2 of 3
Drawn by:	AC
Date:	28/11/2023
Drawing:	ECO02856-0005-01

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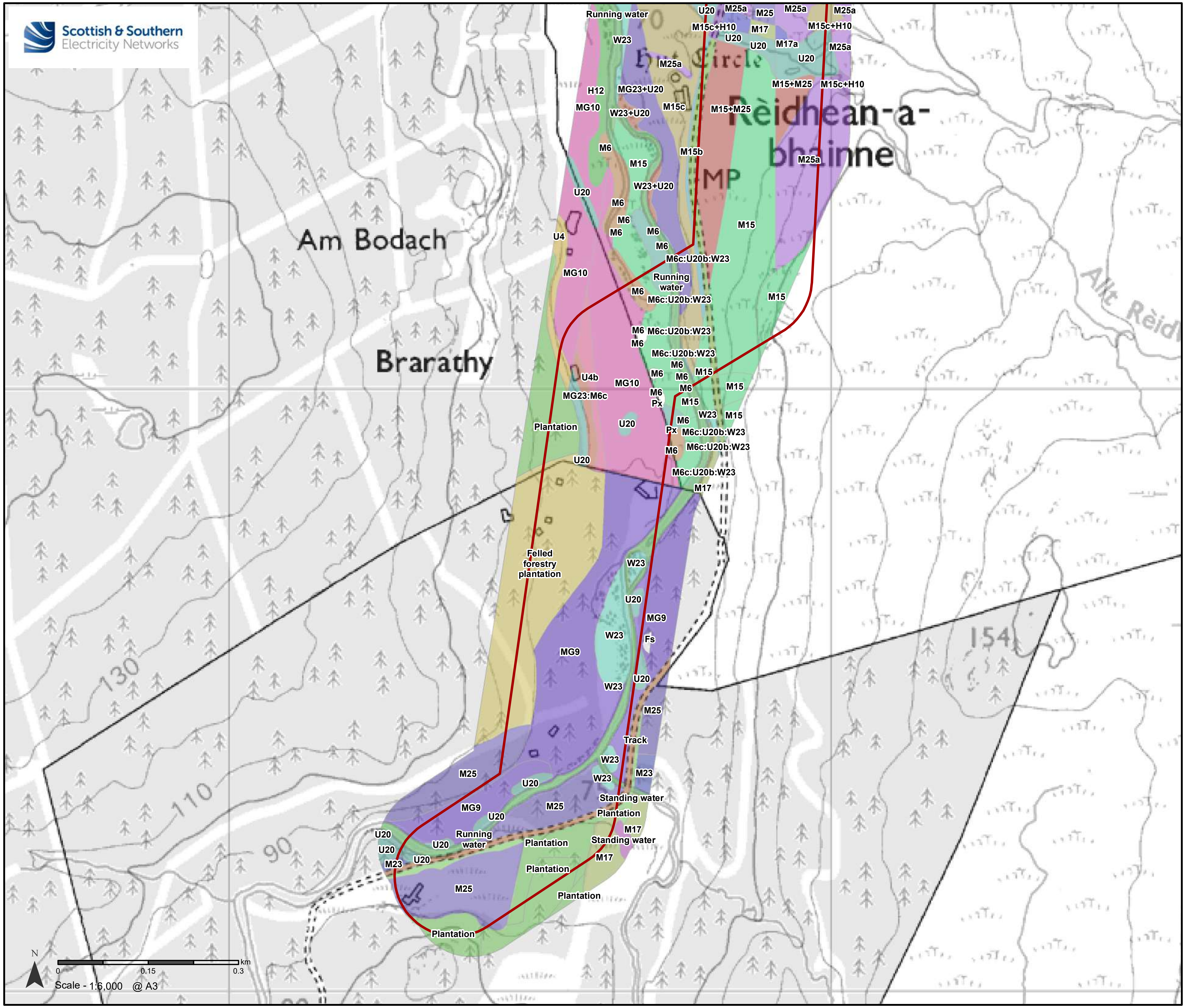

Legend

Proposed Development

NVC dominant habitat

- Felled plantation
- H12
- M15
- M15+M25
- M15b
- M15c
- M15c+H10
- M17
- M17a
- M23
- M25
- M25a
- M6
- M6c
- M6c+M25a
- M6c:U20b:W23
- MG10
- MG23+U20
- MG23:M6c
- MG9
- Plantation
- Running water
- Standing water
- Track
- U20
- U4
- U4b
- W23
- W23+U20

Project:	Strathy Wood Grid Connection
Title:	Figure 5 2022 NVC Survey Results Page 3 of 3
Drawn by: AC	Date: 28/11/2023
Drawing:	ECO02856-0005-01

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FIGURE 6: RECENT SCHEDULE 1 / ANNEX 1 BREEDING WADER RECORDS WITHIN 500 M OF PROPOSED DEVELOPMENT

FIGURE REDACTED DUE TO CONFIDENTIALITY REASONS

FIGURE 7: RECENT BREEDING DIVER AND SCHEDULE 1 RAPTOR RECORDS WITHIN 2 KM OF PROPOSED DEVELOPMENT

FIGURE REDACTED DUE TO CONFIDENTIALITY REASONS

Scottish & Southern Electricity Networks

N

0 0.25 0.5 1 1.5 km

Scale - 1:30,000 @ A3

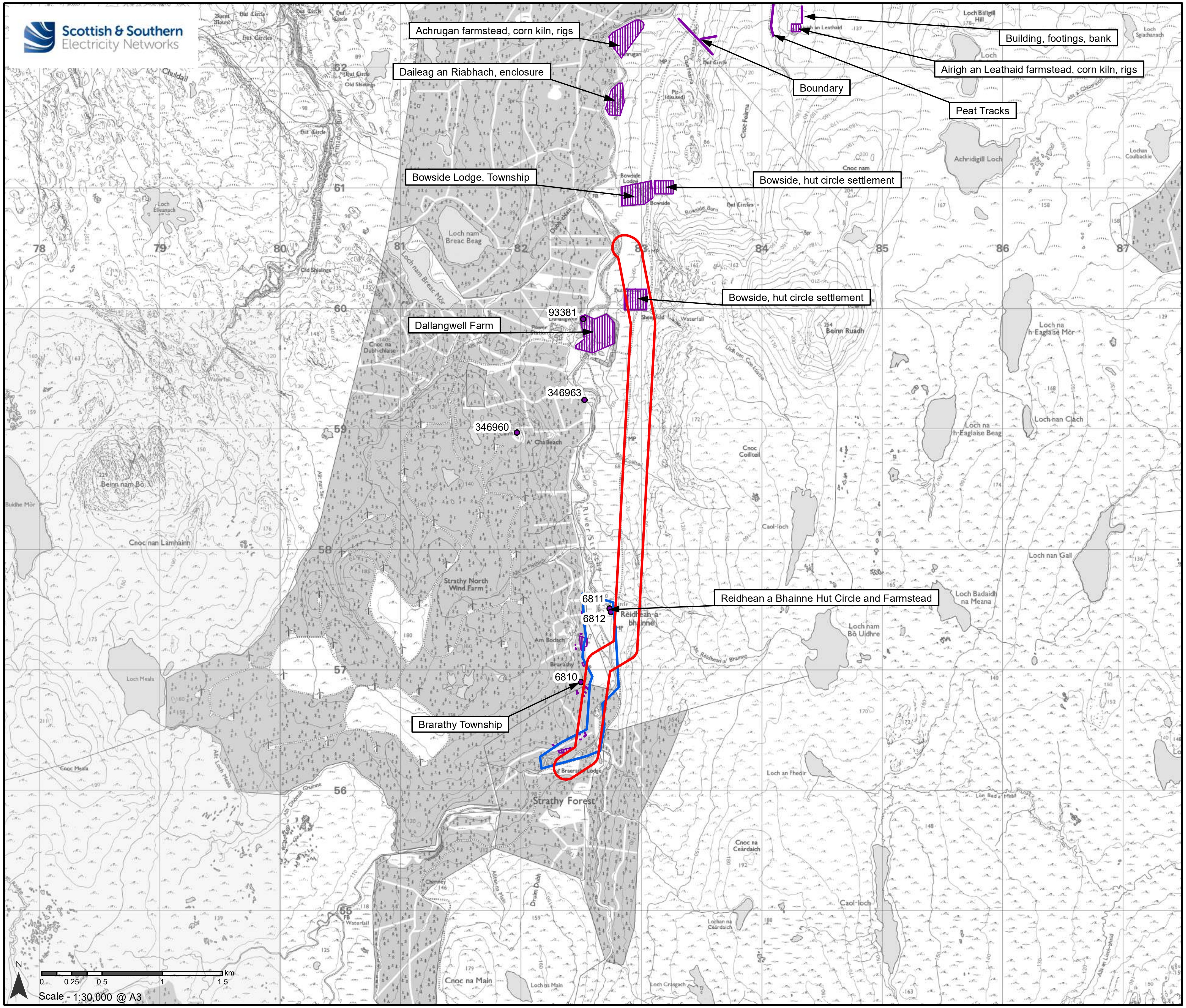
Legend

Proposed Development

National Importance for Carbon-Rich Soil, Deep Peat and Prioity Peatland Habitat

- CLASS 1 All vegetation cover is priority peatland habitats. All soils are carbon-rich soils and deep peat.
- CLASS 2 The vegetation cover is dominated by priority peatland habitats. All soils are carbon-rich soil and deep peat.
- CLASS 3 Dominant vegetation cover is not priority peatland habitat but is associated with wet and acidic type. Occasional peatland habitats can be found. Most soils are carbon-rich soils, with some areas of deep peat.
- CLASS 5 Soil information takes precedence over vegetation data. No peatland habitat recorded. May also show bare soil. All soils are carbon-rish soil and deep peat.
- Mineral soils - Peatland habitats are not typically found on such soils
- Non-soil (i.e. loch, built up area, rock and scree)

Project No:	LT559
Project:	Strathy Wood Wind Farm Grid Connection
Title:	Figure 8 - Peatland Classification
Drawn by:	KM
Date:	11/01/2024
Drawing:	122023-D-SCP8-1.0.0



Legend

Proposed Development

Cultural Heritage Assets

Cultural Heritage Asset

Cultural Heritage Asset

Historic Environment Record (HER)

Brarathy Township

Project No: LT559

Project: Strathy Wood Wind Farm Grid Connection

Title: Figure 9 - Cultural Heritage

Drawn by: KM

Date: 11/01/2024

Drawing: 122023-D-SCP9-1.0.0