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Scottish & Southern Electricity Networks
TRANSMISSION

Strathy South Wind Farm Grid Connection

Environmental Impact Assessment:

Scoping Report

March 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
Habitat	Term most accurately meaning the place in which a species lives, but also used to describe plant communities or agglomerations of plant communities.

[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
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 a 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	A Habitats 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 Impact 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.
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.

Term	Definition
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 Alternative Development	An alternative route for the new 132 kV OHL between Strathy North 'T' (near Dallangwell) to Connagill 275 / 132 kV substation, to avoid the turbines of the proposed Melvich Wind Farm, should it be granted consent.
The Proposed Development	The proposed new 132 kV OHL between Strathy North 'T' (near Dallangwell) to Connagill 275 / 132 kV substation.
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, in accordance with THC 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 South wind farm to the electricity transmission network at Connagill 275/132 kV substation. The structures would be capable of operating at 275 kV in the future, if required.

The Proposed Development would comprise approximately 10.5 km of double circuit 132 kV OHL supported by steel structures from Strathy North 'T' (near Dallangwell) to a cable sealing end (CSE) compound, prior to entering into Connagill 275/132 kV substation via a short section of UGC.

Whilst the Proposed Development is the Applicant's preference, due to it passing through the footprint of the proposed Melvich wind farm, should the wind farm be granted planning consent, an alternative route for the 132 kV OHL would be required. The Alternative Development would comprise 12.5 km of double circuit 132 kV OHL supported by steel structures and would circumvent the proposed Melvich wind turbines to the north, prior to connecting into Connagill 275/132 kV substation via a short section of UGC.

The Proposed (or Alternative) 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". In addition to transporting electricity generated by the consented Strathy South wind farm, the Proposed (or Alternative) Development would be utilised as 'shared infrastructure' with the consented Strathy Wood and operational Strathy North wind farms. Following construction of the Proposed (or Alternative) Development, Strathy Wood and Strathy North wind farms would be transferred over to the new double circuit 132 kV OHL and redundant parts of the existing Strathy North to Dallangwell 132 kV trident H-wood pole would be dismantled.

An Environmental Impact Assessment (EIA), supported by appropriate surveys and specialist assessments, will be carried out to inform an EIA Report. This will include consideration of both the Proposed and Alternative Developments. The EIA Report 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 South wind farm (ECU reference ECU00002133) to the National Grid, herein after referred to as the Proposed Development. The Proposed Development would be located approximately 2 km south of Strathy and 1.5 km south of Melvich, Sutherland, in the Highlands of Scotland.

1.1.3 The Proposed Development would comprise approximately 10.5 km of 132 kV OHL supported by steel structures from Strathy North 'T' (near Dallangwell) (approximate grid reference: NC 83012 60607) to Connagill 275/132kV substation. The structures would be capable of operating at 275 kV in the future, if required. A 200 m wide route is illustrated on **Figure 1** for the Proposed Development. Following the outcome of routeing consultation, the consideration of alignment options will be undertaken.

1.1.4 Whilst the Proposed Development is the Applicant's preference, there has been a requirement to consider an alternative route due to the Proposed Development passing through the footprint of the proposed Melvich wind farm. The minimum distance required between the proposed wind turbines and a 132 kV OHL could not be maintained along the route of the Proposed Development and therefore, should Melvich wind farm be granted planning consent, an alternative route would need to be considered. An indicative 400 m wide route for the Alternative Development is shown on **Figure 1**. Following the outcome of routeing consultation, the consideration of alternative alignment options will be undertaken.

1.1.5 The Proposed (or Alternative) 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". In addition to transporting electricity generated by the consented Strathy South wind farm, the Proposed (or Alternative) Development would be utilised as 'shared infrastructure' with the consented Strathy Wood and operational Strathy North wind farms. This wider work would entail:

- The construction of 5 km of 132 kV underground cable (UGC) to connect the consented Strathy South wind farm on-site substation to a cable sealing end (CSE) compound within the vicinity of Strathy Wood wind farm on-site substation (at grid reference NC 82376 56198). This would be classed as permitted development under Class 40 1(a) of the Town and Country Planning (General Permitted Development) (Scotland) Order 1992.
- A new section of 132 kV double circuit OHL supported by steel structures would continue the connection from the CSE compound to Strathy North 'T' at Dallangwell. This section of double circuit 132 kV OHL is subject to a separate Scoping Report[2].
- Thereafter, the Proposed Development would complete the connection from Strathy North 'T' at Dallangwell to the National Grid at Connagill 275/132 kV substation.
- Following construction of the Proposed Development, Strathy Wood and Strathy North wind farms would be transferred over to the new double circuit 132 kV OHL and redundant parts of the existing Strathy North to Dallangwell 132 kV trident H-wood pole would be dismantled and removed.

[2] Strathy Wood Wind Farm Grid Connection – Scoping Report. ECU Reference: ECU00002133. A Screening Opinion previously sought for this development in 2020 determined that the connection should be subject of an EIA.

1.1.6 The construction of a new switching station would also be required as part of the wider works to facilitate the incoming circuits onto a double busbar before taking these through the Proposed Development for onward transfer to Connagill 275/132 kV substation. The switching station is currently at optioneering stage and would be subject to a Town and Country (Scotland) Planning Act 1997 consent.

1.1.7 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)

1.1.8 This Scoping Report is provided to support a formal request to the 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 (or Alternative) 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[3], (hereafter referred to as 'the EIA Regulations').

1.2.3 Construction of the Proposed (or Alternative) 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 EIA Regulations contains two schedules: Schedule 1 lists projects where EIA is mandatory and Schedule 2 lists projects where EIA may be required *'where proposed development is considered likely to give rise to significant effects on the environment by virtue of factors such as its nature, size or location'.*

1.3.2 The definition of Schedule 1 development in the EIA Regulations states:

(2) construction of overhead electrical power lines with a voltage of 220 kilovolts or more and a length of more than 15 kilometres.

1.3.3 While the Proposed (or Alternative) Development would have the capacity to operate at a voltage of 220 kilovolts (kV) or more, it would be over a distance of less than 15 km and is therefore not categorised as 'Schedule 1' development under the EIA Regulations.

1.3.4 Nevertheless, given it would form a natural extension to the separately proposed Strathy Wood wind farm Grid Connection**Error! Bookmark not defined.**, the Applicant has taken the decision to produce an EIA Report to accompany a n application for consent, without requesting an EIA Screening Opinion from the Scottish Ministers. This EIA

[3] 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.

Scoping Report looks to identify the aspects to be considered in the EIA Report (as further discussed in Section 1.4).

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:

- 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 (or Alternative) 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 (or Alternative) 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 to 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 (and Alternative) Development have been subject to a routeing process in which alternative routes and design solutions 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 proposed and alternative routes identified within the Routeing Consultation Document between Strathy North 'T' (in proximity to Dallangwell) and Connagill 275/132 kV substation are the Proposed Development and Alternative Development respectively and are included within this Scoping Report, as illustrated on **Figure 1.** The Proposed Development comprises a route width of 200 m and the Alternative Development comprises a route width of 400 m, within which the consideration of alignment options will be undertaken, prior to selecting a proposed and an alternative alignment to take forward for section 37 consent.

1.6.4 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 and Alternative Developments), a virtual pre-application meeting was held with statutory consultees, co-ordinated by The Highland Council (THC) on 22nd August 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 (which would also apply to the Alternative 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 South wind farm (and eventually the operational Strathy North and consented Strathy Wood wind farms) to the National Grid.

2.2.2 The Proposed Development would comprise approximately 10.5 km in length of 132 kV OHL supported by steel structures to continue the Strathy Wood Grid Connection (subject to a separate section 37 consent) from Strathy North 'T' (near Dallangwell) to a cable sealing end (CSE) compound, prior to entering into Connagill 275/132kV substation via a short section of UGC. The Proposed Development is illustrated on **Figure 1**.

2.2.3 The Alternative Development would deviate from the Proposed Development near the Allt an Reidhe Ruaidh watercourse (in proximity to an indicative switching station search area, required as part of the Connagill Cluster Grid Connections (see sub-section 1.1.6)). The Alternative Development would circumvent the proposed Melvich wind turbines to the north, connecting into a CSE compound prior to entering Connagill 275/132 kV substation via a short section of UGC. The Alternative Development is illustrated on **Figure 1**.

2.2.4 To allow for futureproofing, it is proposed that a section of the OHL (for both the Proposed and Alternative Developments) would be capable of operating at 275 kV in the future, if required.

2.2.5 The elements subject to consent under Section 37 of the Electricity Act 1989 comprise:

- Approximately 2 km of 132 kV OHL supported by double circuit steel lattice towers (L7 towers) (required for both Proposed and Alternative Developments); and
- Approximately 8.5 km of 132 kV OHL supported by double circuit steel lattice towers (L8 towers) (required for the Proposed Development); or
- Approximately 10.5 km of 132 kV OHL supported by double circuit steel lattice towers (L8 towers) (required for the Alternative Development).

2.2.6 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:

- The construction of one CSE compound (or a tower with a cable sealing end platform) to facilitate the transition between OHL and UGC;
- The formation of access tracks to facilitate construction and ongoing maintenance where required;
- Establishment of temporary measures to protect road and water crossings (i.e. scaffolding);
- Working areas around infrastructure to facilitate construction;
- Any tree and vegetation clearance (if required) to facilitate construction and operation of the Proposed Development, to comply with the Electricity Safety, Quality and Continuity Regulations (ESQCR) 2002; and
- Dismantling of the existing 132 kV OHL following completion and commissioning of the Proposed (or Alternative) Development.

2.2.7 Other associated works, required to facilitate construction and operation of the Proposed (or Alternative) Development, include the installation of approximately 5 km of new double circuit 132 kV UGC. The UGC would extend between the consented Strathy South wind farm on-site substation to a CSE compound within the vicinity of Strathy Wood wind farm on-site substation (at grid reference NC 82376 56198). While this will be considered in the EIA, it will not form part of the application for statutory consent, as the UGC is classed as permitted development under Class 40 1(a) of the Town and Country Planning (General Permitted Development) (Scotland) Order 1992.

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 the 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.

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

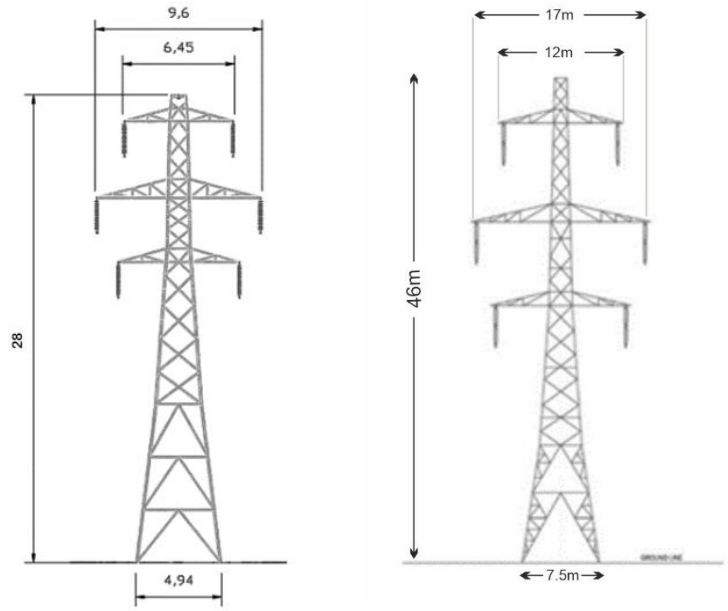
2.4.1 Steel structures will be of a lattice design and would comprise a 'L7' series or 'L8' series of steel lattice tower. The span length (distance between towers) would vary slightly depending on topography and land usage. For an L7 series of tower the span lengths would be between approximately 200 - 280 m whereas for an L8 series of tower it would be approximately 250 m.

2.4.2 Tower heights would also vary, depending on local topography, but would typically be 28 m in height for an L7 series of tower and 46 m in height for an L8 series of tower. 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)[4] would be suspended between tower peaks, above the conductors.

2.4.3 A schematic of the proposed L7 and L8 series of steel lattice towers is shown in **Plate 2.1** below.

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

Plate 2.1: Proposed L7 and L8 Steel Lattice Tower Typical Schematic



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 24 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, to access the western and central extent of the Proposed (and Alternative) Development 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, which is currently being upgraded. In addition, other minor tracks which stem off this road heading south would also be utilised and may require improvement works. Construction site access for the eastern extent of the Proposed (and Alternative) Development would likley be taken via the minor road leading to Kirkton Burial Ground and the A897. There may be a requirement for a crossing of the Halladale River, but this is to be confirmed.

2.6.2 The construction of new stone tracks, and spurs off existing and proposed tracks, are likely to be required to access each steel tower, designed to suit the heavy plant loads required for construction works for steel towers. It is anticipated that stone 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 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.

Forestry Clearance

2.6.4 The Proposed Development would pass through or close to the Coulbackie plantation and depending on the OHL alignment selected, may require sections to be felled to maintain a construction and operational wayleave corridor.

Site Compounds

2.6.5 It is 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

2.6.6 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, micro pile and augered.

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

Steel Lattice Tower Construction

2.6.8 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

2.6.9 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.

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

2.6.11 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 tower.

Cable Sealing End

2.6.12 One CSE compound or CSE tower would be required to facilitate the transitions from OHL to UGC 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.**

2.6.13 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

2.6.14 The OHL support 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

2.6.15 Following commissioning of the Proposed (and Alternative) 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 tower locations and the re-vegetation of all construction compounds.

2.7 Dismantling the Existing OHL

2.7.1 Following completion of the Proposed (or Alternative) Development, the existing 132 kV OHL would be dismantled and removed. The Applicant would implement an Environmental Management Plan for these works to ensure good practice and compliance with all relevant environmental and nature conservation legislation.

2.8 Operation and Maintenance of the OHL

2.8.1 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. The steel lattice towers have an approximate lifespan of 80 years.

2.8.2 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.

2.9 Decommissioning the Proposed Development

2.9.1 The Proposed Development would not have a fixed operational life. The effects associated with the construction phase can be considered to be representative of worst-case decommissioning effects, and therefore no separate assessment is necessary.

2.10 Biodiversity Net Gain

2.10.1 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[5], 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.

2.10.2 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

2.10.3 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)[6] , Sustainability Plan (2019)[7] 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; and
- Work with their supply chain to gain the maximum benefit during asset replacement and upgrades.

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

[5] Natural England Biodiversity Metric http://publications.naturalengland.org.uk/publication/5850908674228224
[6] 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
[7] 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)[8]; and
- Planning Circular 1/2017[9].

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 A separate EIA will also be carried out to assess the potential significant effects which the Alternative Development is likely to have on the environment. This would be incorporated as a separate volume in the EIA Report.

3.1.4 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 proposed to structure the EIA Report 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.
- Volume 3 – Visualisations. This volume would provide visualisations of the Proposed Development from agreed viewpoints, produced in accordance with THC and NatureScot visualisation guidance.
- Volume 4 – Technical Appendices. This volume would provide supporting technical appendices to the assessments carried out as part of Volume 1.
- Volume 5 – EIA of Alternative Development.
- 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.

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

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 Chapters 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-section 1.1.3, 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 between the Strathy Wood on-site substation to the Strathy North 'T' in point (of the Proposed Development) near Dallangwell. 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.
ECU00005239	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.
ECU00003244	Kirkton Wind Farm	Application submitted to ECU in November 2022	Wind farm and BESS development comprising 11 turbines and a combined generating capacity of 72.8 MW.

ECU REF	Development Name and Type	Application Status	Description
N/A	Strathy Wood Wind Farm Grid Connection	Alignment, pre-application stage	132 kV double circuit steel lattice OHL
N/A	Armadale Wind Farm Grid Connection	Alignment, pre-application stage	132 kV Trident H-wood pole OHL
N/A	Melvich Wind Farm Grid Connection	Alignment, pre-application stage	132 kV Trident H-wood pole OHL
N/A	Kirkton Wind Farm Grid Connection	Alignment, pre-application stage	132 kV Trident H-wood pole OHL
N/A	Strathy Switching Station	Site Selection, pre-application stage	-

3.4 Mitigation

3.4.1 A routeing selection process has sought to avoid or minimise likely significant environmental effects of the Proposed (and Alternative) Development through careful routeing where practicable. Further review of the Proposed (and Alternative) 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 passes within proximity to the Caithness and Sutherland Peatlands designated Special Area of Conservation and Special Protection Area. 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 (as well as the EIA produced for the Alternative Development) (See sections 6 and 7 of this 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.

3.6.3 Each topic in this Scoping Report will also consider the potential for interaction between the Alternative Development and environmental receptors and will discuss whether a change to the scope of environmental assessment, from that set out for the Proposed Development, is required.

4. PLANNING POLICY

4.1 Introduction

4.1.1 This section provides an overview of the planning policy context for the Proposed (and Alternative) 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, and is of a scale that would have otherwise been classified as 'Major' by the Town and Country Planning (Hierarchy of Developments) (Scotland) Regulations 2009, will be recognised 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 (and Alternative) 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 (and Alternative) Development is **Policy 11: Energy.** The following policies are also relevant:

- 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 (and Alternative) 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 29: Design Quality & Place-making;
- 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 Proposed (and Alternative) 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 within a wider setting of expansive rolling moorland, scattered with lochs and an intermittent patchwork of coniferous forest plantations and intersected by broad river-valleys running south – north, contained by short, steep slopes. The Proposed Development would cross an area of open, undulating moorland, between the valleys of River Strathy and Strath Halladale.

5.2.2 At the western end of the Proposed Development, the River Strathy is set within a moorland valley occupied by a few scattered properties. This valley is influenced by extensive existing infrastructure, including a well-built access track, existing OHL infrastructure, and the wind turbines of the existing Strathy North Wind Farm which are set to the south-west. However, it's setting within the wider moorland and forest landscape gives it more remote qualities.

5.2.3 At the eastern end of the Proposed Development in Strath Halladale, the moorland transitions to pasture along the strath floor, and the landscape becomes more settled, with scattered farms on the valley sides, and the A897 which provides the main transportation corridor through the strath. The Halladale River runs along the valley floor, and some riparian scrub is present on the river banks. The landscape is also characterised by operational OHL infrastructure, including Connagill substation.

5.2.4 While there is a sense of remoteness within the moorland and to some extent within the River Strathy valley, the landscape is more settled along the coast and within Strath Halladale. To the north of the Proposed Development the landscape character becomes influenced by the coast and more populated and there are small settlements located near the A836 which follows the coastline to the north, as well as pockets of pasture. The coastline is characterised by a series of small bays, with sandy beaches and steep cliffs, and settlements are often concentrated within the bays.

Landscape Designations

5.2.5 The Proposed Development would not be located within any designated landscapes.

5.2.6 The Farr Bay, Strathy and Portskerra Special Landscape Area (SLA) is a coastal landscape, identified and designated by The Highland Council in its document 'Assessment of Highland Special Landscape Areas', 2011, located 1.6 km to the north of the Proposed Development at its closest point (see **Figure 2**). The special qualities of this designation include its intricate coastline, moorland and crofting mosaic, its big skies with extensive views and historical features.

5.2.7 The eastern end of the Proposed Development is located approximately 200 m from the Wild Land Area (WLA) 39: East Halladale Flows (see **Figure 2**). Although not a statutory designation, this area is identified as a nationally important asset and given protection within NPF4. The key attributes of this area include its simplicity of landscape with a strong horizontal emphasis, 'wide skies' and few foci, it's remote, discrete interior with a

rugged and complex pattern of hidden burns, lochans and pools and its open landscape character with extensive visibility.

5.2.8 There are no nationally designated landscapes within the vicinity of the Proposed Development.

Landscape Character

5.2.9 The Proposed Development would be mainly located 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 2**). 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. The eastern end of the Proposed Development within Strath Halladale would be located within the Strath - Caithness & Sutherland LCT (LCT 142). It is characterised by a sense of linearity, and consists of a mixture of semi-improved pasture, moorland and woodland. Water is a key feature, with a central river along the strath floor.

5.2.10 Elsewhere, pockets of crofting land at the coastal mouths of the glens and straths fall within LCT 144 (Coastal Crofts and Small Farms), with a small area of LCT 140: Sandy Beaches and Dunes at Melvich Bay, and to the west, the more rugged landscape falls within LCT 136 (Rocky Hills and Moorland).

Visual Amenity

5.2.11 Potential visual receptors within the surrounding area would include residents and visitors to the coastal settlements to the north including Melvich and Strathy, properties within Strath Halladale including at Golval, Kirkton and a property adjacent to Loch Earacha and a few scattered properties within the River Strathy valley near the western end of the Proposed Development including Bowside Lodge and Dallangwell.

5.2.12 Those traveling along the A897 within Strath Halladale and along the minor road to Kirkton may gain views of the eastern end of the Proposed Development, and there would be potential views from the coastal A836 road to the north of the Proposed Development which comprises part of the North Coast 500 tourist route.

5.2.13 Those engaged in recreation, and estate or existing wind farm workers, may potentially gain views of the Proposed Development from tracks at its western end. 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 (including dismantling of a section of the Strathy North 132 kV OHL) 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 an alignment 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 is currently undergoing 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.

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 3** based on indicative tower locations and assumed tower heights of 28 m and 46 m which reflects the standard heights of the ‘L7’ and ‘L8’ 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 5 km study area is considered appropriate to identify all potentially significant effects. Whilst the ZTV indicates that there may be areas where visibility would be obtained beyond this distance, this is considered unlikely to lead to any noticeable degree of effect when considering the distance at which the towers would be experienced and the transparent qualities of the tower structure.

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.

5.5.7 Given the context where existing infrastructure is already present, it is proposed that a detailed assessment of WLA 39 should not be required for the Proposed Development. However, it is proposed that a review of the Proposed Development in relation to the identified Wild Land Qualities would be included in the LVIA.

5.5.8 The LVIA would also consider the potential effects of the Proposed Development on the Special Qualities of the Farr Bay, Strathy and Portskerra SLA.

Visual Assessment

5.5.9 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

5.5.10 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.

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

- Wind Farms
  - Kirkton Wind Farm;
  - Armadale Wind Farm;
  - Strathy South Wind Farm; and
  - Strathy Wood Wind Farm
- Grid Infrastructure
  - Strathy Switching Station;
  - Armadale Wind Farm Grid Connection;
  - Strathy Wood Wind Farm Grid Connection; and
  - Kirkton Wind Farm Grid Connection.

5.5.12 For the purposes of the assessment of the Proposed Development it is assumed that Melvich Wind Farm would not be constructed. However, it will be considered within the cumulative assessment for the Alternative Development.

Visualisations

5.5.13 Visualisations are proposed to inform and support the LVIA from the following four locations (as illustrated on **Figure 3**):

- Strathy Cemetery (approximate grid ref 283881 965605) – illustrative of views from Strathy, within the SLA.
- A836 near Bighouse (approximate grid ref 290196 964007) – illustrative of distant views from the A836 north-east of the Proposed Development.
- A897 near Golval (approximate grid ref 289817 961783) – illustrative of views from the A897 within Strath Halladale.

- A897 at Loch Earacha (approximate grid ref 289932 960830) - illustrative of views from the A897 within Strath Halladale.

5.5.14 Photomontages would be produced to meet current THC[10] and NatureScot[11] standards.

5.6 Issues to be Scoped Out

5.6.1 As discussed in paragraph 5.5.7, it is proposed that a separate detailed WLA assessment of WLA 39 should not be required for the Proposed Development. However, it is proposed that a review of the Proposed Development in relation to the identified Wild Land Qualities would be included within the main LVIA.

5.7 Alternative Development

Baseline Conditions

5.7.1 The Baseline Conditions for the Alternative Development are largely as per the Proposed Development, as set out in sub-section 5.2. The Alternative Development, however, is located in closer proximity to the regional landscape designation; Farr Bay, Strathy and Portskerra SLA, at approximately 90 m to the north at its closest point (see **Figure 2**). Similarly, the eastern end of the Alternative Development is located in closer proximity to WLA 39: East Halladale Flows, at approximately 150 m to the south-east (see **Figure 2**).

5.7.2 The Alternative Development would be in closer proximity to visual receptors including residents and visitors to the coastal settlements to the north including Melvich and Strathy, and for properties located within Strath Halladale. In addition, the eastern extent of the Alternative Development would be in closer proximity to those travelling along the A897 within Strath Halladale, along the minor road to Kirkton and in views from the A836, which comprises part of the North Coast 500 tourist route.

Proposed Scope and Assessment Methodology

5.7.3 The scope of the LVIA would be similar to the scope of assessment for the Proposed Development, as set out in sub-section 5.5.

5.7.4 While a ZTV has not yet been produced for the Alternative Development, it is anticipated that the extent of potential visibility would be similar to the Proposed Development, with some additional visibility to the north. It is therefore considered that a 5 km study area would be appropriate to identify all potentially significant effects, modified to relate to the alignment which will be progressed.

Landscape Assessment

5.7.5 The scope of the landscape assessment would be as per the scope of assessment for the Proposed Development.

Visual Assessment

5.7.6 The scope of the landscape assessment would be as per the scope of assessment for the Proposed Development.

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

Cumulative Assessment

5.7.7 The scope of the cumulative assessment would be as per the scope of assessment for the Proposed Development. However, unlike the Proposed Development, the cumulative assessment for the Alternative Development will also assume that Melvich Wind Farm would be constructed.

Visualisations

5.7.8 Visualisations are proposed to inform and support the LVIA from the following four locations (as illustrated on **Figure 3**):

- Melvich War Memorial (approximate grid ref 287642 965055) – illustrative of views near Melvich, within the Farr Bay, Strathy and Portskerra Special Landscape Area (SLA)
- Strathy Cemetery (approximate grid ref 283881 965605) – illustrative of views from Strathy, within the SLA
- A836 near Bighouse (approximate grid ref 290196 964007) – illustrative of distant views from the A836 north-east of the Proposed Development
- A897 near Golval (approximate grid ref 289817 961783) – illustrative of views from the A897 within Strath Halladale.
- A897 at Loch Earacha (approximate grid ref 289932 960830) - illustrative of views from the A897 within Strath Halladale.

5.7.9 Photomontages would be produced to meet current THC[10] and NatureScot[11] standards.

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 Alternative Development), including the dismantling of the existing Strathy North OHL, 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 covering a similar area to bats surveys discussed in paragraph 6.2.1. 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 08th 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[12]:

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

[12] https://sitelink.nature.scot/home (Accessed January 2024)

Table 6-1 Statutory Sites of Ecological Importance within the Search Areas Specified Above, listed in order of proximity to the Proposed Development

Name	Designation	Distance to nearest part of Proposed Development	Qualifying Non-avian Features
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)*[13]
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: • Bog orchid (*Hammarbya paludosa*); • Lindberg's bog-moss (*Sphagnum lindbergii*); • Olive bog-moss (*Sphagnum majus*); • *Oreodytes alpinus* (a water beetle species)[14] • Freshwater pearl mussel (*Margaritifera margaritifera*) [15] and • Otter

[13] 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 January 2024].
[14] Strathmore Peatlands SSSI underpins the *Oreodytes alpinus* feature.
[15] 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.

Name	Designation	Distance to nearest part of Proposed Development	Qualifying Non-avian Features
			Source: NatureScot (2023)[16][17]
West Halladale	SSSI[18]	0 km (overlaps the Proposed Development)	Non-avian qualifying features[19] • Blanket bog. *Source: NatureScot (Undated a)*[20]
East Halladale	SSSI[16]	0.7 km east	Non avian qualifying features[17] • Blanket bog Source: NatureScot (Undated b)[21]
Strathy Coast	SSSI	2.4 km north	• Machair • Martitime cliff • Moine • Saltmarsh • Sand dunes • Vascular plant assemblage *Source NatureScot (2010)*[22]
Strathy Point	SAC	4.6 km 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)*[23]
Strathy Bogs	SSSI[16]	4.9 km southwest	Qualifying features: • Blanket bog. *Source: NatureScot (Undated b)*[24]

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 4.85 ha, which represents 0.003 % of both the SAC (143,561.47 ha) and Ramsar site (145,960.53 ha), and 0.056 % of the SSSI (8,658.85 ha). Additionally,

16 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 January 2024].

17 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 contain the most up to date information.

18 Forms part of the Caithness and Sutherland Peatlands SAC.

19 Qualifying ornithological features are included in Table 7.1.

20 NatureScot (Undated a). *Citation West Halladale Site of Special Scientific Interest Highland (Sutherland)*. Available online at: https://sitelink.nature.scot/site/1607 [Accessed January 2024].

21 NatureScot (Undated b). Citation East Halladale Site of Special Scientific Interest Highland (Sutherland). Available online at: file:///C:/Users/athena.michaelides/Downloads/SSSI_Citation_1689.pdf [Accessed January 2024]

22 NatureScot. *Citation Strathy Coast Site of Special Scientific Interest Highland (Sutherland).* Available online at: https://sitelink.nature.scot/site/1689 [Accessed January 2024]

23 JNCC (2015b). Natura 2000 - Standard Data Form, Site UK0013602: Strathy Point. Available online at: https://sac.jncc.gov.uk/site/UK0030066 [Accessed January 2024].

24 NatureScot (Undated b). *Citation Strathy Bogs Site of Special Scientific Interest Highland (Sutherland).* Available online at: https://sitelink.nature.scot/site/1494 [Accessed January 2024]

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 of the Proposed Development 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. The existing dataset overlaps with the Proposed Development.

6.3.6 The Proposed Development footprint comprises a mosaic of habitats (see **Figure 5**), predominantly dry modified bog and wet dwarf shrub heath. Other habitats present include areas of wet modified bog and dry dwarf shrub heath, as well as smaller and/or less frequent stands of semi-improved acid and neutral grasslands, marsh / marshy grassland, broadleaved woodland plantation and bracken.

6.3.7 Along the Proposed Development, habitats of greatest conservation value include those which have greater reliance on hydrological influences including bog and wet heath. Flushes are occasionally present which have the potential to be classified as Ground Water Dependent Terrestrial Ecosystems (GWDTEs).

Protected Species

6.3.8 Protected species surveys for otter, water vole (*Arvicola amphibius*) and bat species were completed for the Proposed Development between August and October 2022. Protected species signs recorded during these surveys are shown in Confidential **Figure 6**.

6.3.9 Results from the 2022 surveys included two otter holts along the Halladale River at the southeastern end of the Proposed Development. In addition, multiple otter signs such as spraints and couches were recorded in the eastern half of the survey area along the Halladale River and two of its tributaries (Achridigill Burn and Allt na h-Eaglaise) as well as at Loch a' Bhealaich. No water vole signs were recorded during the 2022 surveys, although signs of this species were recorded during the 2023 surveys of the Alternative Development (see summary in sub-section 6.8).

6.3.10 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. However, overall levels of bat activity within 200 m of the Proposed Development were considered to be low.

6.3.1 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 are outside the current range of red squirrel (*Sciurus vulgaris*). Signs of badger and pine marten have been recorded during the 2023 surveys for the Alternative Development (see summary in sub-section 6.8).

6.3.2 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.

6.3.3 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).

6.3.4 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 and dismantling of the existing Strathy North OHL, 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 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 or 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 and aquatic 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 dismantling of the existing Strathy North OHL) and are anticipated to be largely temporary, low magnitude and localised. It is anticipated that 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;
- Good practice measures during construction (including dismantling of the Strathy North OHL) to protect IEFs and ensure compliance with relevant legislation, including measures to avoid pollution of the surrounding watercourses and to prevent harm to protected species; and
- Maintaining a 10 m buffer between construction works and watercourses on site and limiting the number of watercourse crossings (where possible). Additionally, SHE Transmissions GEMPs (specifically Working in, or near Watercourses) would be adhered to throughout construction. This will minimise the risk of pollution to the surrounding watercourses and avoid direct and indirect effects on aquatic species, including fish species, during construction works.

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, as well as dismantling of the existing Strathy North OHL, 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. As noted in Section 2.9, the Proposed Development would not have a fixed operational life. It is proposed, therefore, that potential effects on IEFs during the decommissioning phase of the Proposed Development are scoped out of the assessment. However, should decommissioning occur, and 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[25]. This will include the following stages:

- IEFs that could be affected by the construction and operation of the Proposed Development (including dismantling of the Strathy North OHL) will be identified based on recent survey data, combined with a desk-based review of existing data obtained for other developments in the surrounding area. 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 (including dismantling of the Strathy North OHL) will be identified and characterised (e.g., extent, magnitude, duration, reversibility, timing and frequency).
- In addition to assessing potential effects on IEFs resulting from the Proposed Development alone (including dismantling of the Strathy North OHL), 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 (as listed in Table 3.1).
- The EcIA will assume that the embedded mitigation outlined in section 6.5 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.

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

6.6.4 The EcIA will focus on potential effects from construction and operation of the Proposed Development upon IEFs identified through the recent surveys and desk-based review of additional datasets.

6.6.5 On the assumption that the dismantling of the existing OHL would be subject to the implementation of an Environmental Management Plan, with appropriate safeguards for pollution prevention, pre-construction checks for protected species, and effective restoration measures of disturbed ground, no likely significant adverse effects on terrestrial ecology are anticipated.

Habitats Regulations Appraisal (HRA)

6.6.6 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.

6.6.7 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.

6.6.8 The EIA Report will include relevant information to allow the competent authority to undertake this assessment.

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[26]).

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.

6.8 Alternative Development

Baseline Conditions: Statutory Sites

6.8.1 The Alternative Development is located in proximity to the same designated sites summarised in **Table 6 1**, although there is no overlap with any designated sites. In general, separation distances are slightly greater than the Proposed Development. The exceptions are the two coastal designated sites, namely Strathy Point SSSI, which is 0.7 km to the north and Strathy Coast SAC, which is 3.2 km to the north.

[26] NatureScot (2021). Caithness and Sutherland Peatlands Special Area of Conservation (SAC) Conservation Advice Package. Available online at: https://sitelink.nature.scot/site/8218 [Accessed January 2024]

Baseline Conditions: Habitats

6.8.2 An NVC survey of the Alternative Development was completed in September and October 2023 and January 2024.

6.8.3 Habitats within 100 m of the Alternative Development (see **Figure 5**) predominantly comprise dry modified bog and wet dwarf shrub heath, with smaller areas of other habitats such as marsh/marshy grassland, acid neutral flushes, improved and semi-improved grassland, bracken, scrub and blanket bog.

6.8.4 As per the Proposed Development, habitats of greatest conservation value within 100 m of the Alternative Development include those which have greater reliance on hydrological influences including bog and wet heath, and flushes, which have the potential to be classified as GWDTEs, are occasionally present.

Baseline Conditions: Protected Species

6.8.5 Protected species surveys for the Alternative Development were completed in June to July 2023, with further surveys completed in January 2024 to cover changes to the route. During these surveys, signs of otter, water vole, badger and pine marten were recorded. Protected species signs recorded during these surveys are included in Confidential **Figure 6**.

6.8.6 Signs of otter, including a possible holt, were recorded along the Halladale River and some of its tributaries, as well as the Allt na Clèite watercourse, which is near the northeastern section of the Alternative Development. Water vole burrows were recorded on the Alltan Domhaich watercourse just to the north of the Alternative Development and the Allt na Clèite watercourse. Water vole feeding stations and potential burrows were also recorded in proximity to the southeastern end of the Alternative Development and suitable habitat was recorded in several additional areas.

6.8.7 Three main badger setts, two outlier setts and badger foraging signs were recorded in an area within 200 m of the Alternative Development during the 2023/24 protected species surveys. A single pine marten scat was recorded near the Halladale River in the southeast of the survey area and an area of suitable habitat was also noted in the surrounding area.

Potential Effects

6.8.8 Potential effects of the Alternative Development on IEFs are considered to be the same as those identified for the Proposed Development, with the exception that there is no potential for direct effects on the Caithness and Sutherland Peatlands SAC or West Halladale SSSI as there is no overlap between the Alternative Development and these designations.

Mitigation and Enhancement

6.8.9 The same mitigation measures outlined above for the Proposed Development will be implemented for the Alternative Development.

Proposed Scope and Assessment Methodology and Issues to be Scoped Out

6.8.10 The proposed scope and assessment methodology would be the same as outlined above for the Proposed Development. Similarly, it is proposed that the same issues scoped out of the assessment of potential effects of the Proposed Development on IEFs are also scoped out of the assessment of potential effects of the Alternative Development.

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, including the dismantling of the existing Strathy North OHL, 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[10]:

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

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: • Wigeon (*Mareca penelope*); • Common scoter (*Melanitta nigra*); and • Greenshank (*Tringa nebularia*). Source: NatureScot (2023a)[27]
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[28]: Ramsar Convention on Wetlands of International Importance Especially as Waterfowl Habitat (2023)[29].

[27] NatureScot (2023a). Citation for Special Protection Area (SPA) Caithness and Sutherland Peatlands (UK9001151). Available online at: https://sitelink.nature.scot/site/8476 [Accessed January 2024]

[28] 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.

[29] 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 January 2024].

Name	Designation	Distance to nearest part of Proposed Development	Qualifying Features
West Halladale	SSSI[30]	0 km (overlaps the Proposed Development)	Ornithological qualifying features[31]: • Breeding black throated diver; • Breeding common scoter; and • Breeding bird assemblage. Source: SSSI Citation[20].
East Halladale	SSSI	0.7 km east	Ornithological qualifying features[34]: • Dunlin; • Golden Plover; and • Breeding bird assemblage. Source: SSSI Citation[19]
North Caithness Cliffs	SPA	2.4 km 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: • Kittiwake (*Rissa tridactyla*); • Common guillemot (*Uria aalge*); • Razorbill (*Alca torda*); • Puffin (*Fratercula arctica*); and • Fulmar (*Fulmarus glacialis*). Breeding seabird assemblage. Source: NatureScot (2017)[32]
Caithness Lochs	SPA and Ramsar site*	12.6 km 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].*

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

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

[32] 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 January 2024].

[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 January 2024].

[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 January 2024].

Name	Designation	Distance to nearest part of Proposed Development	Qualifying Features
North Sutherland Coastal Islands	SPA	19.2 km 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)[35].
*The boundaries of the Caithness Lochs SPA and Ramsar site are contiguous, and the qualifying features (and cited population sizes) are the same.			

Sensitive Bird Species

7.2.3 Ornithology surveys were carried out between October 2018 and August 2023[36],, comprising flight activity surveys, moorland breeding bird surveys, scarce breeding bird surveys, raptor surveys, black-throated diver focal watches and breeding diver surveys. The survey areas were based on the optimal route at the time and also included surrounding areas relevant to the Proposed Development with survey-specific buffers (500 m for breeding birds, 1.5 km for breeding divers and 2 km for scarce breeding birds).

7.2.4 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 Strathy North 132 kV OHL and operational Strathy North Wind Farm, where the most recent annual monitoring took place in 2019 and 2021[37].

7.2.5 An overview of the key results from the surveys outlined above are presented in **Table 7.2**, with breeding territories shown in **Confidential Figures 7 to 9**. A more detailed review of available recent and historical ornithology survey datasets and survey data 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
Strathy South and Strathy Wood Grid Connections	Scarce breeding bird surveys (Apr-Jul 2019 and May-Jul 2022)	One confirmed and successful hen harrier nest within 5 km of the Proposed Development during the 2019 surveys. A second confirmed hen harrier breeding territory within 5 km of the Proposed Development. This was likely abandoned following a moorland wildfire in May 2019. One confirmed (and successful) merlin nest was observed within 1 km of the Proposed Development. A single golden plover breeding territory within 500 m of the Proposed Development between May – July 2022. A single common sandpiper (*Actitis hypoleucos*) breeding territory within 500 m of the Proposed Development.

[35] 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 January 2024].

[36] 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.

[37] 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
		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 surveyors as April to August) numerous 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 (*Lyrurus tetrix*) lek surveys (Apr-May 2019)	No black grouse recorded.
	Breeding bird surveys (Apr-Jul 2019)	Snipe and common sandpiper breeding territories recorded. Greenshank heard calling early in the breeding season, but no nesting confirmed within the survey area.
	Vantage Point (VP) surveys (Mar-Oct 2023)	Target species flights included five qualifying features of the Caithness and Sutherland SPA: wigeon (*Anas Penelope*; one flight), golden plover (five flights), red-throated diver (one flight), golden eagle (five flights) and hen harrier (nine flights). Most hen harrier flights were in April, with six on the same date and involving a single female displaying over a nest site within 1 km of the Alternative Development. The golden eagle flights included a pair of displaying birds within 1 km of the Proposed Development during an April survey (but were not considered to be breeding within 1 km).
	Breeding raptor walkover survey (Apr-Jul 2023)	A distant, unidentified eagle species was observed north of the Proposed Development during an April survey but there were no further observations of displaying golden eagle. Between late April and early June there were three further observations of hen harrier in the vicinity of the nest identified during the April VP surveys (including two unsexed birds). However, breeding was not confirmed.
	Moorland breeding bird survey (MBBS) (Apr-Jul 2023)	Two common sandpiper territories were identified within 500 m of the Proposed Development. Note that a single golden plover territory and a single snipe territory were also observed within 500 m of the Alternative Development, but were more than 500 m from the Proposed Development.

Development	Summary of completed surveys	Summary of key results
	Breeding diver survey (Apr-Jul 2019) and May-Jul 2023	A pair of black-throated diver bred within 5 km of the Proposed Development, with a single chick observed that did not survive to fledging in 2019. Two observations of black-throated diver in 2023 (a single bird during the MBBS and a feeding pair during the breeding diver survey) on another loch within 1 km of the Proposed Development indicated the presence of a summering territory, although there was no evidence of breeding. There were no observations of breeding behaviour by red-throated diver within 2 km of the Proposed Development during the surveys.
Proposed Strathy South and Strathy Wood Grid Connections (between Strathy Wood substation and Strathy North substation)	VP surveys (Oct 2018 to Aug 2019)	Very low levels of flight activity generally recorded during non-breeding season (October to February), with small numbers of four SPA species: golden eagle, hen harrier, merlin and peregrine. Ten hen harrier flights during late March, comprising displaying birds of both sexes.
	Breeding Bird Surveys (Apr-Jul 2019)	Greenshank was calling early in the breeding season, but no nesting was confirmed within the survey area.
	Scarce breeding bird surveys (Apr-Jul 2019)	One confirmed and successful hen harrier nest within 5 km of the Proposed Development. A second confirmed hen harrier breeding territory was observed. This was likely abandoned following a moorland wildfire in May 2019. One confirmed (and successful) merlin nest was observed within 1 km of the Proposed Development.
	Breeding diver surveys (Jun-Aug 2019)	One (failed) black-throated diver breeding attempt on a loch approximately 5 km south with a single small chick observed that did not survive to fledging.
Proposed Strathy South and Strathy Wood Grid Connections (between Strathy Wood substation and Connagill substation)	Scarce breeding bird surveys (May-Jul 2022)	One record of a single red-throated diver, flying and calling to the southwest of the Proposed Development (in the same area as the flights recorded during VP surveys – see below), but no reported evidence of nesting. Five golden plover breeding territories within 1 km of the Proposed Development. One record of a single calling dunlin (*Calidris alpina*) within 200 m of the eastern end of the Proposed Development but no evidence of breeding.
	VP surveys (May-Aug 2022)	Eight SPA species were recorded: greylag goose, red-throated diver, black-throated diver, golden plover, greenshank, hen harrier, merlin and peregrine. The red-throated diver flights were concentrated around a waterbody within 1 km of the Proposed Development, and included behaviour indicative of breeding, although no nests were reported. The golden plover flights were also indicative of two potential breeding territories. Other target species recorded included small numbers of pink-footed goose, several wader species, including curlew and lapwing, and a single osprey flight.
	Black grouse lek surveys (Apr-May 2019)	No black grouse were recorded.
Operational Strathy North Wind Farm	VP surveys (Apr-Aug 2021)	Eight SPA species were recorded: greylag goose (four flights), red-throated diver (four flights), golden plover (one flight), dunlin (two flights), greenshank (11 flights), golden eagle (one flight), hen harrier (54 flights) and merlin (four flights). A single unidentified (likely red-throated) diver flight and two unidentified goose flights (one of which was likely greylag goose) were also

Development	Summary of completed surveys	Summary of key results
		recorded. The golden plover was display calling to the south of approximately 5 km south-west of the Proposed Development. Much of the greenshank flight activity corresponded with territories identified during the MBBS.
	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 (one flight), 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 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. An additional potential hen harrier breeding territory was also identified within 5 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 (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.
	MBBS (Apr- Jul 2021 and 2019)	One common sandpiper territory within 500 m of the Proposed Development in 2019. Ten greenshank territories in scattered locations around the periphery of Strathy North Wind Farm (to the west and south), all >1 km away from the Proposed Development. Ten golden plover territories were observed in the areas surrounding the Proposed Development. Three dunlin territories were observed within 1 km of the Proposed Development.
	Breeding diver surveys (Jun-Aug 2019 and May-Aug 2021); and Diver focal watches (Jul-Aug 2019 and Aug 2021)	A pair of black-throated diver bred successfully within 2 km of the Proposed Development in both 2019 and 2021. A pair of black-throated diver bred successfully at a second location within 2 km of the Proposed Development in 2021. There were no observations of breeding behaviour by red-throated diver within 2 km of the Proposed Development during the 2019 or 2021 surveys. A confirmed red-throated diver breeding attempt on an unnamed lochan bordering Strathy North to the west of the Proposed Development. A second confirmed red-throated diver breeding attempt at a loch within

Development	Summary of completed surveys	Summary of key results
		approximately 5 km south of the Proposed Development. Single red-throated divers were also observed prospecting at the nearby lochs. Successful black-throated diver breeding attempts approximately 2 km east of the Proposed Development. Confirmed breeding (2 well-grown chicks observed) by an unidentified diver species (likely red-throated diver based on previous observations and small size of the loch) on unnamed loch south >5 km from the Proposed Development.

7.3 Potential Effects

7.3.1 Potential effects of the Proposed Development (including dismantling of the Strathy North OHL) 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 (including dismantling of the Strathy North OHL);
- Accidental disturbance, damage or destruction of nests, eggs or chicks during the construction phase (including dismantling of the Strathy North OHL);;
- 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 (including dismantling of the Strathy North OHL);
- Indirect impacts on habitats used by IOFs due to accidental contamination/pollution of groundwater and/or watercourses during the construction phase (including dismantling of the Strathy North OHL); 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.

7.4 Mitigation and Enhancement

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 (including dismantling of the Strathy North OHL) 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.

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. The ECoW will attend the site regularly to oversee works and to check observations for bird species present in and around the areas where works are planned and identify any potential constraints.

7.5 Proposed Scope and Assessment Methodology

7.5.1 As mentioned previously, the EIA Report will include an OIA. This will consider the potential direct, indirect and cumulative effects that the construction (including dismantling of the Strathy North OHL) 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. As noted in Section 2.9, the Proposed Development would not have a fixed operational life. It is proposed, therefore, that potential effects on IOFs during the decommissioning phase of the Proposed Development are scoped out of the assessment. However, should decommissioning occur, and 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[22]. This will include the following stages:

- IOFs that could be affected by the construction and operation of the Proposed Development (including dismantling of the Strathy North OHL) will be identified based on recent survey data, combined with a desk-based review of existing data obtained for other developments in the surrounding area. 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 (including dismantling of the Strathy North OHL) 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 (including dismantling of the Strathy North OHL), the OIA will include an assessment of potential cumulative effects on IOFs resulting from the Proposed or Alternative Development in combination with other relevant developments (existing, consented and proposed) in the surrounding area (see Table 3.1).
- The OIA will assume that the embedded mitigation outlined in section 7.4 will be fully implemented. As noted in section 7.4, 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 Regulations Appraisal (HRA)

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 and included as a Technical Appendix of the EIA Report, 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 from the Proposed Development on the North Caithness Cliffs SPA are scoped out, based on the separation distance (outside the core foraging range of breeding peregrine) and other qualifying features, which are breeding seabird species not expected to make regular use of the Proposed Development site. 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 from the Proposed Development 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[37]). As the SPA is located 19.2 km from the Proposed Development (at the closest point), there is not considered to be any pathway for direct or indirect effects.

7.7 Alternative Development

Baseline Conditions: Statutory Sites

7.7.1 The Alternative Development is located in proximity to the same designated sites summarised in **Table 7.1**, although there is no overlap with any designated sites. In general, separation distances are slightly greater than the Proposed Development. The exceptions are the coastal North Caithness Cliffs SPA, which is 1.2 km to the northeast.

Baseline Conditions: Species

7.7.2 Survey results detailed in **Table 7.2** include those completed specifically in relation to the Alternative Development. The Alternative Alignment is located in proximity to the same range of breeding birds as the Proposed Development.

Potential Effects

7.7.3 Potential effects of the Alternative Development on IOFs are considered to be the same as those identified for the Proposed Development, with the exception that there is no potential for direct effects on the Caithness and Sutherland Peatlands SPA or West Halladale SSSI as there is no overlap between the Alternative Development and these designations.

Mitigation and Enhancement

7.7.4 The same mitigation measures outlined above for the Proposed Development will be implemented for the Alternative Development.

Proposed Scope and Assessment Methodology

7.7.5 The Alternative Development (but not the Proposed Development) is within 2 km of the North Caithness Cliffs SPA, which is the core foraging range (NatureScot, 2016[38]) of breeding peregrine (a designated feature of the SPA). As such, this SPA will be considered in the shadow HRA process. However, no records of breeding

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

peregrine have been identified within 2 km and recorded levels of flight activity during surveys have been low, suggesting it is unlikely that an AA will be required.

7.7.6 For all other aspects, the proposed scope and assessment methodology would be the same as outlined above for the Proposed Development.

Issues to be Scoped Out

7.7.7 As for the Proposed Development, it is proposed that potential impacts from the Alternative Development on the North Sutherland Coastal Islands SPA are scoped out, since it is located outside the core foraging range of wintering barnacle goose (15 km**Error! Bookmark not defined.**).

7.7.8 However, since the Alternative Development is located within the core foraging range of the North Caithness Cliffs breeding peregrine SPA population (2 km**Error! Bookmark not defined.**), it is not proposed to scope out potential e ffects of the Alternative Development on this SPA.

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 the dismantling of the existing OHL), and a summary of the proposed assessment methodology. It has been informed by previous surveys that have been undertaken in support of the routeing assessment stage of the project, from other nearby developments and published information sources.

8.2 Baseline Conditions

8.2.1 Baseline conditions relevant to the soils, geology and water environment for the Proposed Development are described below.

8.2.2 As a consequence of previous planning applications and developments within this area, including studies completed in support of the existing Strathy North 132 kV OHL, Melvich and Kirton wind farm applications, the soils, geology and water environment are already well understood and characterised.

Soils, Geology and Hydrogeology

8.2.3 British Geological Survey (BGS) mapping indicates that the Proposed Development overlies the Kirtomy Gneisses (semipelites) to the south west, sandstones and conglomerates (Bighouse Formation and Lower Old Red Sandstone Group) to the north west, and psammites, granites, and other smaller igneous intrusions to the east (Portskerra Psammite Formation and Strath Halladale Granite). The bedrock is generally overlain by superficial deposits of peat. Fluvial and / or glacial sand and gravels are shown adjacent to the larger watercourses (River Strathy and Halladale River), particularly to the west and east.

8.2.4 Priority peatland mapping published by NatureScot indicates that approximately 8.4 km of the Proposed Development is located in areas of potential priority peatland (Class 1 and 2) (see **Figure 11**). Peat probing has recorded peat depths of between 0 and 4 m locally. The deepest areas of peat are noted in discrete areas within the centre of the Proposed Roue, within mapped areas of Class 1 priority peatland (see **Figure 12**).

8.2.5 The metamorphic and igneous bedrock 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. The sedimentary bedrock has been classified as a moderately productive aquifer which may locally yield small amounts of groundwater. Shallow groundwater is also 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 Halladale River or River Strathy.

Designated Sites and Hydrology

8.2.6 Review of the NatureScot SiteLink website confirms that a small part of the western extent 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 (see **Figure 10**). 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.

8.2.7 The Proposed Development is located within the surface water catchment of the River Strathy to the west, Baligall Burn and Allt na Cleite to the centre and the Allt na h-Eaglaise and Halladale River to the east. The

Proposed Development would cross several tributaries of the River Strathy and Halladale River crossing the Halladale River itself at one location, close to where the existing OHL crosses the river (see **Figure 10**).

8.2.8 SEPA flood mapping shows that the majority of the Proposed Development is not considered to be at flood risk (from all sources) now or in the future. Approximately 300 m of the eastern extent of the Proposed Development, particularly within the area surrounding the crossing point over the Halladale River, is within the mapped floodplain associated with flooding of the Halladale River (see **Figure 10**).

8.2.9 The Bowside Burn, a tributary of the River Strathy, has been designated as a surface water Drinking Water Protected Area (DWPA) and serves a private water supply which abstracts water from the burn . Review of The Highland Council private water supply (PWS) database indicates that no other private water supplies are located within 500 m 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 carbon rich soils and 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 groundwater dependent terrestrial ecosystems (GWDTE), water dependent habitat and water supplies;
- disturbance of watercourses via the construction of access tracks and watercourse crossings; 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 access track construction;
- 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 or inappropriate access track watercourse crossing design.

Dismantling of the Existing OHL

8.3.2 The dismantling of the existing OHL is not likely to result in significant adverse effects on the geology, soils (including peat) or water environment, subject to the implementation of an Environmental Management Plan for the dismantling works with appropriate safeguards for pollution prevention, and similar to those adopted for construction of the Proposed Development.

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 and these would from part of the embedded mitigation considered in the assessment. 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 would be identified.

8.5 Proposed Scope and Methodology of Assessment

8.5.1 An assessment of the potential impacts of the Proposed Development (including the dismantling of the existing OHL) 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 – SEPA 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. 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, 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:

- 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.
- 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. Whilst any works near the Halladale River will be in the floodplain appropriate controls during construction and operation can be agreed with SEPA and THC as part of the detailed design stage of the project and project CEMP.
- 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.
- Baseline 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.

8.7 Alternative Development

8.7.1 The Alternative Development is located within a similar geological, hydrogeological, and hydrological setting as the Proposed Development.

8.7.2 The Alternative Development is located within the same surface water catchments and overlies the same geology as the Proposed Development (see **Figure 10**). Both the Alternative Development and Proposed Development cross approximately 8.4 km of priority peatland (Class 1 and Class 2) (see **Figure 11**) and similar peat depths have been recorded across the Alternative Development compared to the Proposed Development (see **Figure 12**).

8.7.3 THC's PWS database indicates that there is an additional PWS within 500 m of the Alternative Development compared to the Proposed Development, located near Kirkton Farm. In addition, approximately 1.4 km of the eastern extent of the Alternative Development is shown to be within the mapped floodplain of the Halladale River, which is slightly more than the Proposed Development (see **Figure 10**).

8.7.4 The scope of the proposed assessment on soils, geology, and the water environment for the Proposed Development, as outlined in the sections above, is considered appropriate to also assess the Alternative Development and no additional scope is proposed.

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, being the archaeological, historical and intangible cultural assets of the area, the potential effects, both direct and indirect, associated with the construction and operation of the Proposed Development, and the proposed scope of assessment methodology to be considered in the EIA Report.

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 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 2013, 2021 and 2023.

9.2.2 Desk-based evaluation and field studies have identified the area of the Proposed Development to be located within three distinct areas in terms of cultural heritage assets. The western and eastern sections are located within sheltered and relatively fertile river valleys which were settled continuously from the prehistoric period but mostly depopulated in the 19th century, the lack of subsequent development leaving a relict landscape of monuments and settlements. The higher moorland between the two straths has provided little opportunity for historic land use other than summer grazing and peat cutting.

9.2.3 The western strath, that of the River Strathy, provides a relatively narrow corridor of settlement where both prehistoric structures, in the form of hut circle settlements dating back to the Bronze Age, and Early Modern townships, occupy the same ground, exploiting the same resources. This pattern is repeated on the east side of the Halladale River. By contrast, the western slopes of Strath Halladale are for the most part avoided by early Modern settlement but allow for scattered prehistoric remains including defensive sites such as Melvich Broch and Havaig Fort which were both strategically located to control movement through the strath.

9.2.4 The central section of high moorland contains, in terms of Cultural Heritage, a small number of individual shieling structures, generally constructed of turf and poorly defined within the landscape, large areas of peat cuttings and associated peat tracks and ephemeral turf dykes which probably date to the 19th century period of commercial sheep farming. Only one site, at Airigh an Leathaid, suggests a possibly short-lived attempt to utilise the moorland for cultivation.

Designated Heritage Assets

9.2.5 There are no designated heritage assets ((i.e. Scheduled Monuments, Listed Buildings, Designed landscapes) within or adjacent to the Proposed Development.

9.2.6 There are a number of Listed Buildings along the coast to the north and within Strath Halladale, and five Scheduled Monuments, as listed below and illustrated on **Figure 13**:

Listed Buildings:

- Strathy Former Church of Scotland (LB7143),
- Strathy Free Church (LB7144)
- Strathy, former Free Church School (LB7146)
- Strathy. Former Free Church Manse (LB7145)
- Bighouse Mains Steading (LB7140)
- Bighouse Barracks (LB7161)

- Bighouse garden walls and west pier gates (LB7159)
- Bighouse Garden Pavilion and walled garden (LB7160)
- Strath Halladale Mission Church (LB7142)
- Smigel Bridge (LB12915)
- Smigel Mill (LB7141).

Scheduled Monuments:

- Halladale Bridge Hut Circles (SM3304)
- Millburn Barrows (SM13622)
- Leathaid Carnaich Hut Circles (SM1876)
- Bailgill Mill (SM4265)
- Baligill Burn Limekilns (SM4290).

9.2.7 Intervening terrain means that, according to the ZTV prepared for this report (see **Figure 3**), that many of these designated sites have no or insignificant visibility of the Proposed Development: namely Strathy Former Church of Scotland; Bighouse Barracks, garden walls and west pier gates; Bighouse garden pavilion and walled garden; Strath Halladale Mission Church, Smigel Bridge and Mill, Millburn barrows, Baligill Mill and Baligill Burn Limekilns. The majority of those with the potential for significant indirect, visual impact, are domestic or industrial, placed in the landscape for practicalities of proximity to population or access to resources and would not be considered to be particularly sensitive to alterations to their setting. In this category would be Strathy Former Free Church, School and Manse, at 2 km from the Proposed Development at its closest point, and Bighouse Mains Steading at 3 km from the Proposed Development.

9.2.8 The Hut Circle settlement at Halladale Bridge, also 3 km from the Proposed Development at its closest point, is also domestic in nature, placed in the landscape to exploit resources and possibly enjoying a significant visual relationship with Loch Mor Broch. This visual relationship is not crossed by the Proposed Development.

Cultural Heritage Assets

9.2.9 Although the Proposed Development crosses some recorded non-statutory cultural heritage assets and some which have been noted during field survey, these are for the most part minor features of local significance and include field boundaries, peat tracks and areas of prehistoric cultivation without associated hut circle settlement (see **Figure 13**).

9.2.10 Four cultural heritage assets are crossed by the Proposed Development but are considered to be of local interest and low sensitivity to direct or indirect impacts:

- Bowside Lodge field system (MHG 9521) Formerly recorded as hut circles but re-defined as field clearance piles.
- Allt na h'Eaglais field system (MHG 9697).
- Allt na h'Eaglais enclosure (MHG 17814) This feature is probably of 19th century origin.
- Airigh an Leathaid farmstead (MHG 13407) One building, an enclosure and an area of drained ground. The place name would indicate that this is an initial shieling site subsequently occupied on a more permanent basis, possibly associated with sheep farming.

9.2.11 Only two assets would be considered to be of regional significance and therefore sensitive to both direct and indirect impacts and these include:

- Connagill Township (HER ref. MHG 10555). This early Modern township comprises the remains of 3 long rectangular buildings, a corn drying kiln, two possible bothies, several enclosures, a possible

quarry and at least eight clearance cairns. It was completely abandoned at the time of the introduction of commercial sheep farming in the early 18th century. It overlies a landscape of prehistoric settlement and land use, consisting of a major bronze age roundhouse and a large area of cultivation.

- Havaig Fort (HER re. MHG 9696). Occupying the summit of a rocky knoll, this small fort is of uncertain prehistoric date but may be contemporary with hut circle settlemets within Strath Halladale and other prehistoric defensive sites such as Loch Mor broch at Melvich and Upper Bighouse Broch, forming a line of defense and control at the entrance to major routeway up the strath. The Havaig fort measures 38m NE-SW by 18m NW-SE with entrances at both ends.

9.2.12 The fort in particular, set in the landscape to control movement in Strath Halladale, would be considered sensitive to alterations to its setting such as blocking key vistas to the north.

9.3 Potential for Significant Effects

Direct Impacts

9.3.1 Direct impacts on Cultural Heritage assets would for the most part be limited to minor features of Local significance and low sensitivity such as peat tracks and areas of prehistoric cultivation with no associated hut circle settlement. Only at the easternmost end of the Proposed Development, to the east of the Halladale River and the A897 public road, would the development pass directly through one recorded heritage asset: the depopulated township of Connagill (MHG 10555), which itself overlies prehistoric features known to date to the Bronze Age. This asset could potentially be directly impacted (direct damage or disturbance) by construction of the OHL towers and access tracks.

Indirect Impacts

9.3.2 Indirect impacts, that is, alterations to the setting of an asset, are not anticipated for any designated heritage asset.

9.3.3 Impacts on setting are predicted for one non-designated asset: Havaig Fort (MHG9696), where the Proposed Development crosses, at a distance of under 300 m, the significant vista northwards from the fort. The sensitivity of this 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 major for this asset, should one of the proposed towers be placed within a broad arc from the north west to the north east of this asset, thus blocking the significant vista northwards.

9.4 Mitigation

9.4.1 In the case of both direct impacts on Connagill township (MHG 10555), and indirect impacts on the setting of Havaig Fort (MHG9696), these impacts could be minimised through careful placement of towers, along with marking out of features to avoid accidental damage during the construction phase.

9.5 Proposed Scope and Methodology of Assessment

9.5.1 A cultural heritage assessment carried out in line with best practice guidance would form part of the EIA Report. The assessment would take account in more detail of potential effects on heritage assets noted in this

evaluation (as listed in sub-section 9.2) within the boundary of the Proposed Development, including all access tracks, during both construction and operation. It would also take into consideration potential cumulative effects.

9.5.2 Potential effects would 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. Effects identified as being at a level of Moderate or greater are considered significant in accordance with the EIA Regulations.

Assessment Methodology

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

- Chartered Institute for Archaeologists (2019) 'Standard and Guidance for Historic Environment Desk-Based Assessment'.
- SNH & HES (2018) 'Environmental Impact Assessment Handbook'.
- HES (2019) 'Designation Policy and Selection Guidance'.
- HES (2016) 'Managing Change in the Historic Environment: Setting'.
- Principles of Cultural Heritage Impact Assessment (IEMA, IHBC & CIfA, 2021)
- Planning Advice Note (PAN) 2/2011: Planning and Archaeology.
- Highland Council's Standards for Archaeological Work, 2012

9.5.4 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.

Study Area

9.5.5 The assessment of potential impacts on setting, of both designated assets and non-designated assets, considered vulnerable to alterations to their setting would be informed by a Zone of Theoretical Visibility (ZTV) for the Proposed Development. A 3 km study area is considered appropriate to identify all potentially significant effects.

9.6 Issues to be scoped Out

9.6.1 It is proposed that all designated heritage assets that are located within the 3 km study area but are not considered to be subjected to visual impacts as a result of the Proposed Development, are excluded from further consideration. These include the following designated assets, for the reasons as set out in sub-section 9.2.7:

- Strathy Former Church of Scotland, LB7143;
- Bailgill Mill, SM4265;
- Baligill Burn Limekilns SM4290;
- Strath Halladale Mission Church, LB7142;
- Smigel Bridge, LB12915;
- Smigel Mill, LB7141;
- Millburn Barrows, SM13622; and
- Leathaid Carnaich Hut Circles, SM1876.

9.6.2 It is also proposed to exclude a number of non-designated heritage assets that are recorded on the Highland Historic Environment Record (HER) and fall within the 3 km study area (see **Figure 13**) but are considered to be of local significance and low sensitivity to direct impacts, from further consideration in the EIA Report. These include the following assets:

- Allt na h'Eaglaise field system MHG9697; and
- Allt na h'Eaglaise enclosure, MHG17814.

9.7 Alternative Development

Designated Heritage Assets

9.7.1 There are no designated heritage assets within the Alternative Development. However, there is potential for increased proximity to designated heritage assets to the north and east from the Alternative Development, which has the potential for a more significant indirect impact compared to the Proposed Development. However, the sensitivity of these designated heritage assets are still considered to be low.

Non-Designated Heritage Assets

9.7.2 There is potential for increased indirect impacts from the Alternative Development on one non-designated heritage asset considered to be vulnerable to alterations to its setting: Havaig Fort. The Alternative Development would pass within 100 m of this asset, crossing significant vistas to the north (see **Figure 13**).

Assessment Methodology for the Alternative Development

9.7.3 The scope of the cultural heritage assessment would be as per the scope of assessment for the Proposed Development.

Study Area

9.7.4 It is anticipated that the extent of visibility would be similar to the Proposed Development, with some increased visibility to designated assets to the north. It is therefore considered that a 3 km study area would continue to be appropriate to identify all potential significant effects.

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 dismantling of the Strathy North 132 kV OHL) , 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).
- Automatic Traffic Count (ATC) survey for a one week period on the A897 near the existing Connagill 275/132 kV substation.

10.2.3 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].

10.2.4 It is anticipated that construction access for the Proposed Development will be taken from three access points. The first is 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. The second construction access would be taken from Kirkton Road, located to the southeast of Melvich and the final construction access would be taken from the A897 near the existing Connagill substation.

10.2.5 Sensitive receptors to be considered in the assessment would include communities within the study area and users of the road links. All receptors, both communities and users, would 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;

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

- 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.

10.3.3 The effects that would be considered would 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 Report and would be summarised into a Transport and Access Chapter within the EIA Report.

10.5.2 The following policy and guidance documents would be used to inform the Transport and Access EIA 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 Heavy Goods Vehicles (HGVs) 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 (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 transport 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. Changes in traffic flow below this level predicted as a consequence of the Proposed Development are 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 associated traffic generation levels 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.

10.7 Alternative Development

10.7.1 No changes to the scope are anticipated.

11. TOPICS TO BE SCOPED OUT OF ASSESSMENT

11.1 Introduction

This section provides the rationale for excluding the detailed assessment of certain topics from the EIA Report. 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 The majority of the Proposed Development avoids forestry and woodland.

11.2.2 There are no woodlands recorded in either the Ancient Woodland Inventory (AWI) or the National Survey of Scotland (NWSS) within the Proposed Development.

11.2.3 Bowside Lodge falls outwith the 100 m buffer of the Proposed Development however, some of the associated mixed woodland falls within the western extent.

11.2.4 No woodland is affected until Coulbackie woodland, a conifer plantation. While the greater part of the plantation is outside the 100 m buffer of the Proposed Development, a narrow extension of this plantation extends within the Proposed Development.

11.2.5 The National Forest Inventory (2020) shows a number of “assumed woodlands” within the 100 m buffer of the Proposed Development. These woodlands include felled and replanted shelterbelts and may include recently planted woodlands of a native character. A young woodland creation scheme is present around Loch a’ Bhealaich, to the west of the Halladale River, and extends across the full width of the Proposed Development. The native woodland creation schemes are young and will not, at this stage, be susceptible to windblow. Furthermore, these woodlands include a higher percentage of open space by design.

Potential for Significant Effects

11.2.6 A narrow section of the Coulbackie conifer plantation would require felling for the construction and operation of the Proposed Development and a number of recently planted or replanted woodland would require clearance of young trees.

Issues Scoped Out

11.2.7 While small areas of woodland would be lost to the Proposed Development, this would not have any significant effect on the overall woodlands in the area. There is therefore no requirement for a forestry assessment to be undertaken.

Alternative Development

11.2.8 The Alternative Development is similar to the Proposed Development in that the majority of the route contains no woodland or forestry plantations. However, a similar cluster of assumed woodlands or recently planted woodlands are present on the south-western section towards Connagill substation. In addition, a small

woodland area, classified in NWSS as “unidentified” Native Woodland, falls within the Alternative Development to the south-west of Loch Earacha.

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 Approximately 1.6 km to the north of the Proposed Development is the A836, which forms part of the North Coast 500 (NC500) route and National Cycle Route 1 (NCR1). The Proposed Development also would cross the A897, which runs from Helmsdale to Melvich, and is frequently used by tourists.

11.3.3 The main access track to be used by the Proposed Development in the eastern extent which passes alongside 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. In the western extent the Proposed Development would cross Core Path SU19.03, which runs along the west of the Halladale River between Upper Bighouse and Cemy, south of the Kirkton property, near Havaig, at a point close to crossing the Halladale River.

11.3.4 The Estates within the vicinity of the Proposed Development are managed for sporting activities (mainly deer stalking). The Halladale River and River Strathy are both popular with anglers as they are spate Salmon rivers that enter the Pentland Firth. The River Strathy is fished as part of Bowside Fisheries based at Bowside Lodge.

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 to set out how continued access for recreational users along routes in the area, particularly Scottish Hill Track 344 and Core Path SU19.03, would be managed during construction. An Outline Outdoor Access Plan would be included within the EIA Report. 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.

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

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.

Alternative Development

11.3.9 The Alternative Development would be located in closer proximity to the A836 (and associated NC500 and NCR 1) compared to the Proposed Development, at approximately 160 m at its closest point. It would also be located in closer proximity to core path SU.19.03 for a longer stretch. However, as for the Proposed Development, it is anticipated that an Outdoor Access Plan would be prepared as part of the CEMP, and signage erected at suitable locations to warn recreational users of construction traffic. The potential for effects on visual amenity of the recreational and tourist receptors as a result of the Alternative Development would be fully considered through the Alternative LVIA.

11.3.10 The production of an assessment setting out the socio-economic factors for the Alternative Development would be scoped out as per the Proposed Development.

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), interspersed with Class 6.3 (land capable of only rough grazing) and a short section of Class 4.2 (land primarily suited to grassland) on approach to Connagill substation.

11.4.2 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, Strathy North 132 kV OHL and Beauly – Dounreay 275 kV OHL.

Potential for Significant Effects

11.4.3 Potentially significant effects which can arise on land use from development of this type include temporary or permanent loss of publicly used land; temporary or permanent severance and impact on the viability of existing activities; re-utilisation of redundant and vacant land; and impacts on land designated for future development.

Issues Scoped Out

11.4.4 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 CSE compounds would be negligible and it would remain possible for grazing to continue around and under towers during their operational lifetime. It is proposed that this topic is scoped out of the EIA in its entirety.

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

Alternative Development

11.4.6 The Alternative Development would cross the same land classifications, and similar extents, as the Proposed Development. It is proposed to scope out an assessment of this topic from the, as per the Proposed Development.

11.5 Population and Human Health

Baseline Conditions

11.5.1 The Proposed Development is located within a predominately rural area. Small settlements that are within the closest vicinity of the Proposed Development include Melvich to the north-east and Strathy to the north-west. Smaller clusters of properties and individual dwellings are also distributed alongside the A836 trunk road, and the A897 within Strath Halladale.

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, 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 (closest being approximately 575 m), no operational noise effects are expected. As such, this topic is proposed to be scoped out of the EIA.
- Noise from dismantling of Existing OHL
    - Noise from dismantling activities of the existing OHL will be short term and intermittent. Any operational maintenance works required along the line will be short term and intermittent and can 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, this topic is proposed to be scoped out of the EIA.
- 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 Report.

- 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 Report in its entirety.

Alternative Development

11.5.3 The Alternative Development would be located further north and in closer proximity to the settlement and properties within Melvich, Portskerra, Strathy and alongside the A836 and A897 trunk roads. The closest property is approximately 430 m to the outer edge of the Alternative Development route.

11.5.4 The possible effects associated with construction and operation of the Alternative Development in relation to population and human health are as per the Proposed Development, as set out in sub-section 11.5.2.

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 the EIA process, 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.

Alternative Development

11.6.9 As per the Proposed Development, it is proposed to scope out an assessment of air quality and climate change as part of the EIA Report for the Alternative Development.

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.

Alternative Development

11.7.5 As per the Proposed Development, it is proposed to scope out an assessment of Major Accidents and/or Disasters as part of the EIA Report for the Alternative Development.

12. NEXT STEPS

12.1 Inviting Comments

12.1.1 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?

12.1.2 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

12.1.3 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

12.1.4 The Scoping Opinion provided will be used to finalise the scope of the EIA and the specific approach to the individual assessments.

12.1.5 All comments received will be included in the EIA Report for reference, unless consultees request otherwise.

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Legend

- Proposed Development
- Alternative Development*
- Strathy North 132 kV OHL (to be dismantled)
- Strathy North 132 kV OHL (to be repurposed)
- Proposed Strathy Wood Wind Farm Grid Connection (subject to a separate consent)
- Connagill 275 / 132 kV Substation
- Melvich Substation
- Kirkton Substation
- Strathy North Substation
- Operational Strathy North Turbine
- Proposed Kirkton Turbine
- Proposed Melvich Turbine

*Subject to further optioneering.

N

0 0.25 0.5 1 1.5 km

Scale - 1:30,000 @ A3

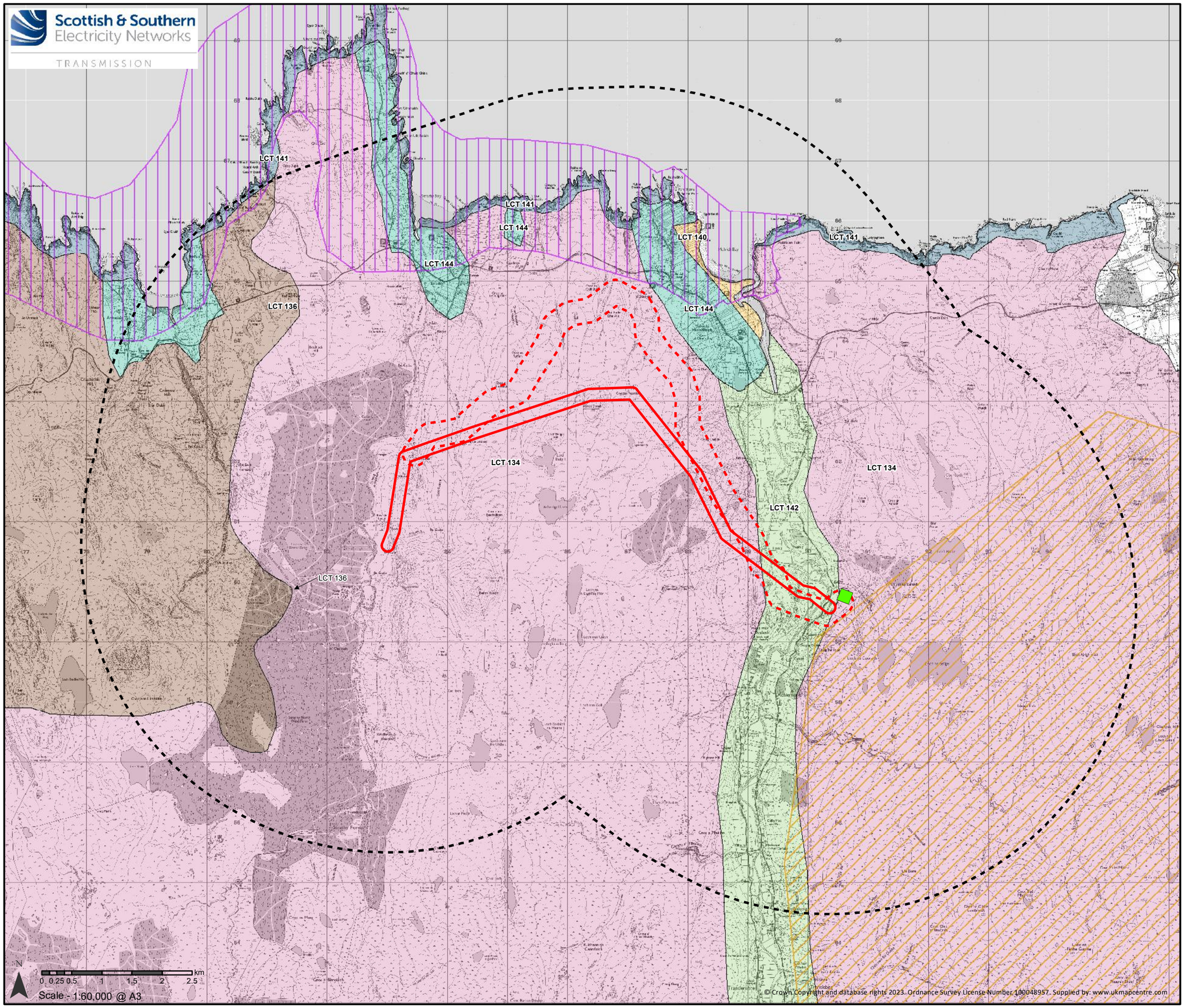
Project No: LT560

Project: Strathy South Wind Farm Grid Connection

Title: Figure 1 - Site Context with Proposed and Alternative Developments

Drawn by: KM Date: 28/02/2024

Drawing: 121008-D-SCO1-1.0.0



Legend

- Proposed Development
- Alternative Development
- Indicative LVIA Study Area - 5km from Proposed Development*
- Connagill 275 / 132 kV Substation

Landscape Character Type (LCT)

- LCT 144: Coastal Crofts & Small Farms
- LCT 141: High Cliffs and Sheltered Bays
- LCT 136: Rocky Hills and Moorland
- LCT 140: Sandy Beaches and Dunes
- LCT 142: Strath - Caithness & Sutherland
- LCT 134: Sweeping Moorland and Flows

Designated Sites

- Special Landscape Area (SLA)
- Wild Land Area (WLA)

**The study area would be generated as a buffer from the proposed tower positions and is therefore subject to change, depending on the alignment taken forward to application stage.*

Project No: LT560

Project: Strathy South Wind Farm Grid Connection

Title: Figure 2 - Landscape Character Types and Designated Sites

Drawn by: KM Date: 01/03/2024

Drawing: 121008-D-SCO2-1.0.0

Scottish & Southern Electricity Networks
TRANSMISSION

Strathy Cemetery
Melvich War Memorial
A836 near Bighouse
A897 near Golval
A897 at Loch Earacha

N
0 0.25 0.5 1 1.5 2 2.5 km
Scale - 1:60,000 @ A3

Legend

- Proposed Development
- Alternative Development
- Indicative LVIA Study Area - 5km from Proposed Development*
- Connagill 275 / 132 kV Substation
- Proposed (and Alternative) Development Visualisation Location
- Alternative Development Visualisation Location

Indicative Zone of Theoretical Visibility (ZTV) (Proposed Development)

- Max. no. of Towers Visible: 36
- Min. no. of Towers Visible: 1

**The study area would be generated as a buffer from the proposed tower positions and is therefore subject to change, depending on the alignment taken forward to application stage.*

Project No: LT560

Project: Strathy South Wind Farm Grid Connection

Title: Figure 3 - Indicative LVIA Study Area with ZTV for the Proposed Development

Drawn by: KM Date: 01/03/2024

Drawing: 121008-D-SCO3-1.0.0

Scottish & Southern Electricity Networks
TRANSMISSION

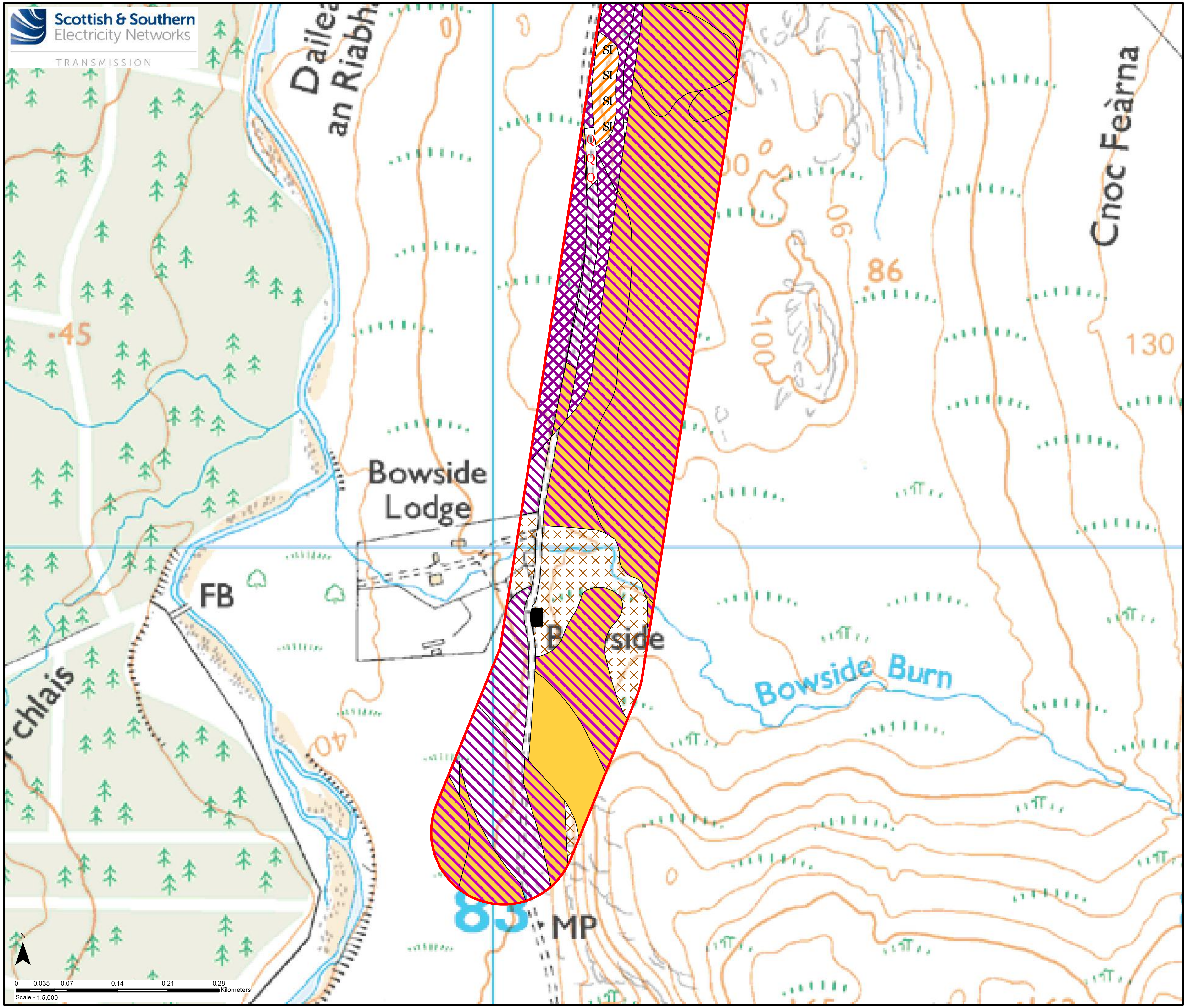
Legend

▭ Proposed Development
▭ Alternative Development
🟩 Connagill 275 / 132 kV Substation
▭ 2km Study Area
▭ 10km Study Area
▭ 20km Study Area

Environmental Designations and Constraints

▨ The Flow Country Candidate World Heritage Site
▭ Special Protection Area (SPA)
▨ Special Area of Conservation (SAC)
▨ RAMSAR Site
▭ Site of Special Scientific Interest (SSSI)

Project No:	LT560
Project:	Strathy South Wind Farm Grid Connection
Title:	Figure 4 - Environmental Designations and Constraints
Drawn by:	KM
Date:	28/02/2024
Drawing:	121008-D-SCO4-1.0.0

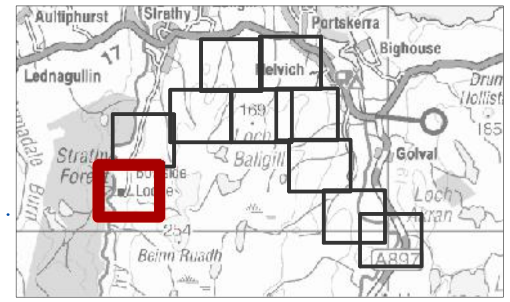


Key

- 100 m Buffer of Proposed Route
- 200 m Buffer of Alternative Route

Habitat survey results

- B1.2 - Acid grassland - semi-improved
- C1.2 - Bracken - scattered
- D1.1 - Dry dwarf shrub heath - acid
- D2 - Wet dwarf shrub heath
- E1.7 - Wet modified bog
- E1.8 - Dry modified bog
- I2.1 - Quarry
- J3.6 - Buildings
- J5 - Other habitat



Project No: LT560

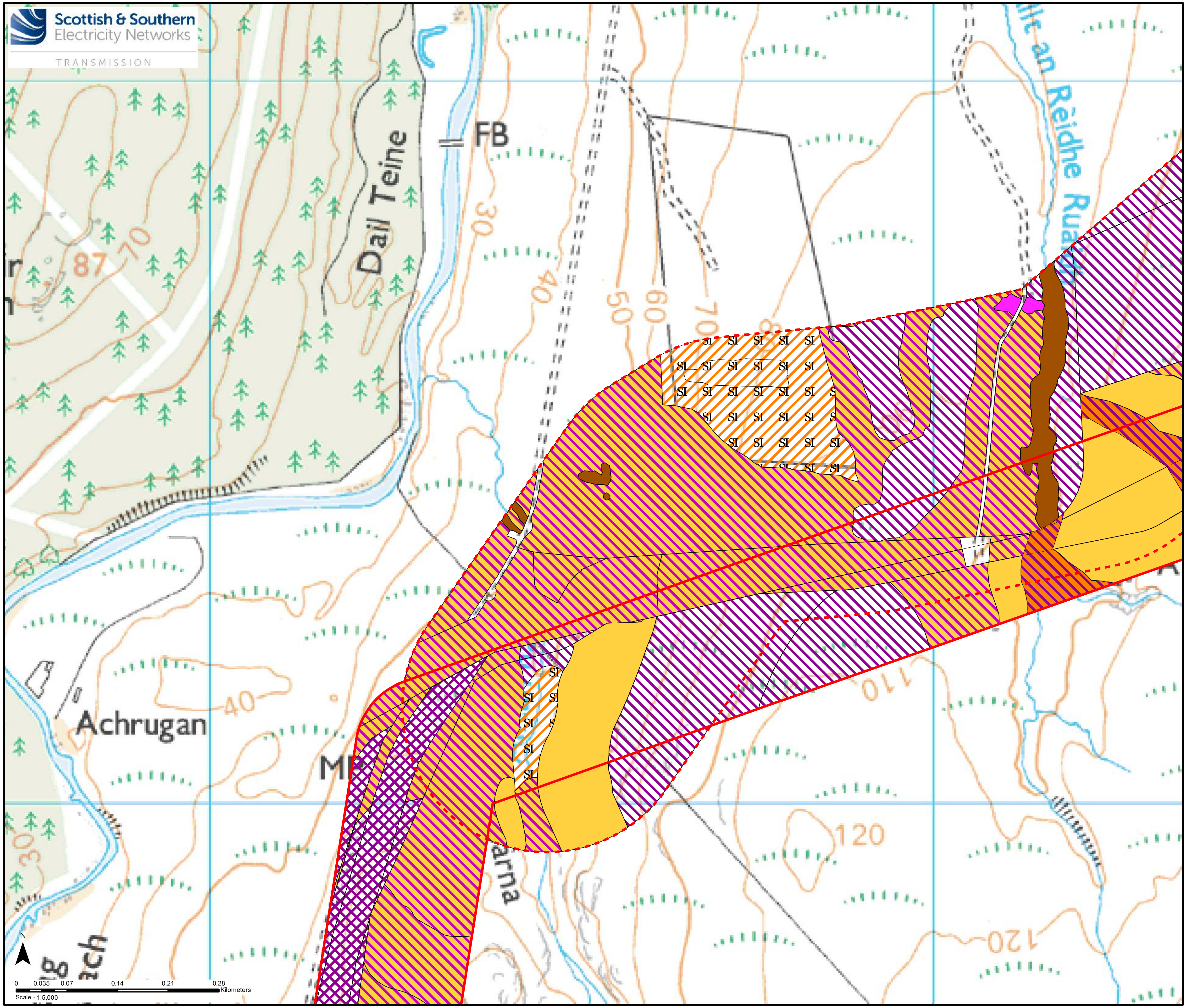
Project: Strathy South Wind Farm Grid Connection

Title: Figure 5
Habitat Survey Results within 100 m of routes
Sheet 1 of 10

Drawn by: AC 16/02/2024

Drawing: ECO02857-0033-01 Sheet 1 of 10

W:\ECO02857 - ASH Strathy South Grid EIA\Technical\Graphics\GIS\MXDs\Figures\ECO02857-0033-01 Habitat data within 100m and 200m of the routes Fig 5.mxd

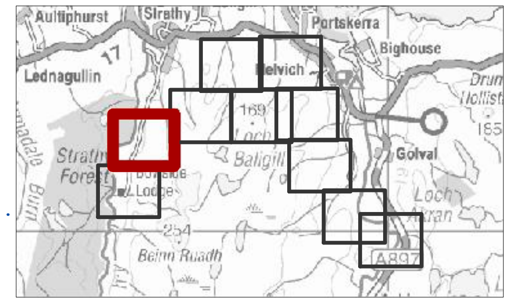


Key

- 100 m Buffer of Proposed Route
- 200 m Buffer of Alternative Route

Habitat survey results

- B1.2 - Acid grassland - semi-improved
- B5 - Marsh/marshy grassland
- C1.1 - Bracken - continuous
- D1.1 - Dry dwarf shrub heath - acid
- D2 - Wet dwarf shrub heath
- E1.7 - Wet modified bog
- E1.8 - Dry modified bog
- E2.1 - Flush and spring - acid/neutral flush
- J5 - Other habitat



Project No:	LT560
Project:	Strathy South Wind Farm Grid Connection
Title:	Figure 5 Habitat Survey Results within 100 m of routes Sheet 2 of 10
Drawn by:	AC 16/02/2024
Drawing:	ECO02857-0033-01 Sheet 2 of 10

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Scottish & Southern Electricity Networks
TRANSMISSION

Cnoc a'

Loch Bal
Hill

N

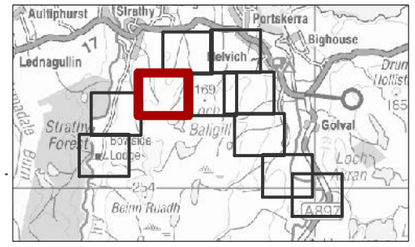
0 0.035 0.07 0.14 0.21 0.28 Kilometers
Scale - 1:5,000

Key

- 100 m Buffer of Proposed Route
- 200 m Buffer of Alternative Route

Habitat survey results

- B1.2 - Acid grassland - semi-improved
- B5 - Marsh/marshy grassland
- D1.1 - Dry dwarf shrub heath - acid
- D2 - Wet dwarf shrub heath
- D2/E1.8 - Wet dwarf shrub heath/dry modified bog mosaic
- E1.6.1 - Blanket sphagnum bog
- E1.7 - Wet modified bog
- E1.8 - Dry modified bog
- E2.1 - Flush and spring - acid/neutral flush
- J5 - Other habitat



Project No:	LT560
Project:	Strathy South Wind Farm Grid Connection
Title:	Figure 5 Habitat Survey Results within 100 m of routes Sheet 3 of 10
Drawn by:	AC 16/02/2024
Drawing:	ECO02857-0033-01 Sheet 3 of 10

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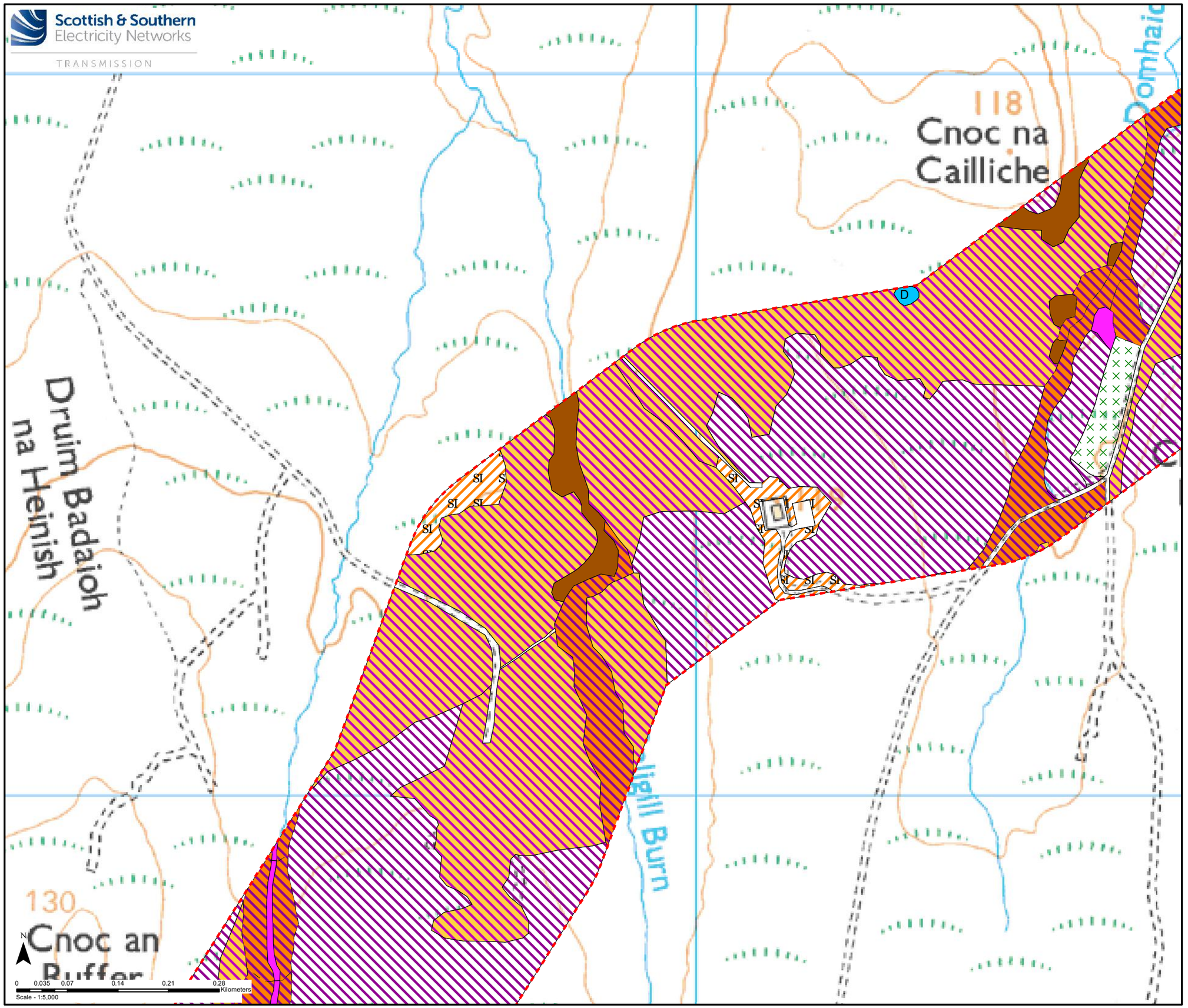
TRANSMISSION

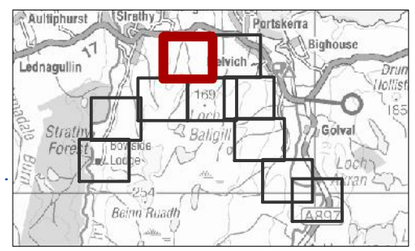


Key

- 100 m Buffer of Proposed Route
- 200 m Buffer of Alternative Route

Habitat survey results

- A2.2 - Scrub - scattered
- B1.2 - Acid grassland - semi-improved
- B5 - Marsh/marshy grassland
- C1.1 - Bracken - continuous
- D2 - Wet dwarf shrub heath
- E1.8 - Dry modified bog
- E2.1 - Flush and spring - acid/neutral flush
- G1.4 - Standing water - dystrophic
- J5 - Other habitat



Project No:	LT560
Project:	Strathy South Wind Farm Grid Connection
Title:	Figure 5 Habitat Survey Results within 100 m of routes Sheet 4 of 10
Drawn by:	AC 16/02/2024
Drawing:	ECO02857-0033-01 Sheet 4 of 10

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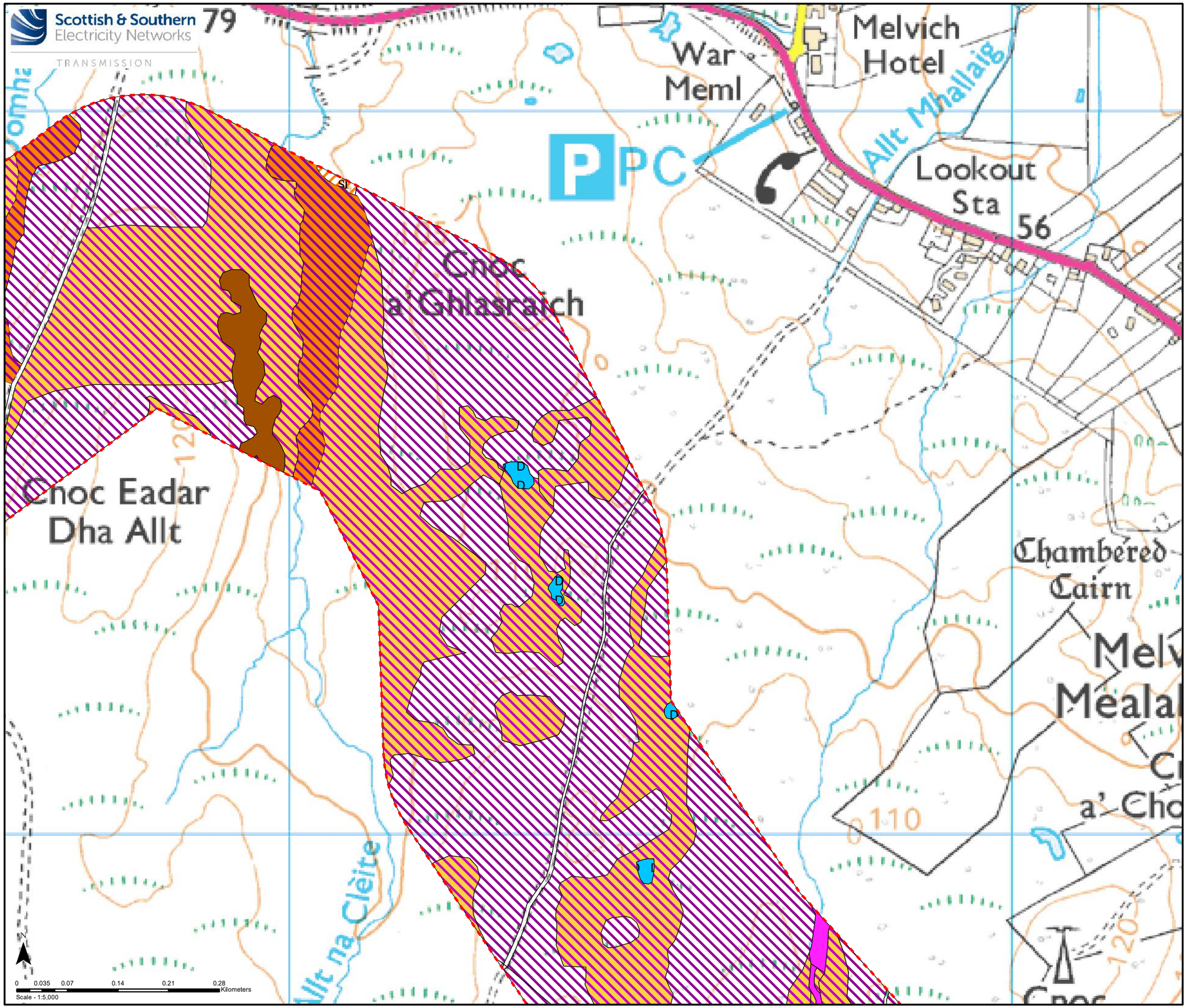
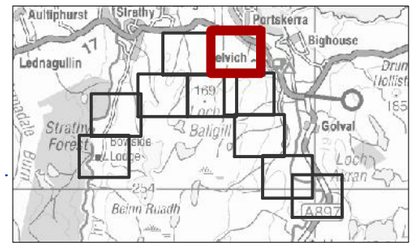


Key

- 100 m Buffer of Proposed Route
- 200 m Buffer of Alternative Route

Habitat survey results

- A2.2 - Scrub - scattered
- B1.2 - Acid grassland - semi-improved
- B5 - Marsh/marshy grassland
- C1.1 - Bracken - continuous
- D2 - Wet dwarf shrub heath
- E1.8 - Dry modified bog
- E2.1 - Flush and spring - acid/neutral flush
- G1.4 - Standing water - dystrophic
- J5 - Other habitat



Project No:	LT560
Project:	Strathy South Wind Farm Grid Connection
Title:	Figure 5 Habitat Survey Results within 100 m of routes Sheet 5 of 10
Drawn by:	AC 16/02/2024
Drawing:	ECO02857-0033-01 Sheet 5 of 10

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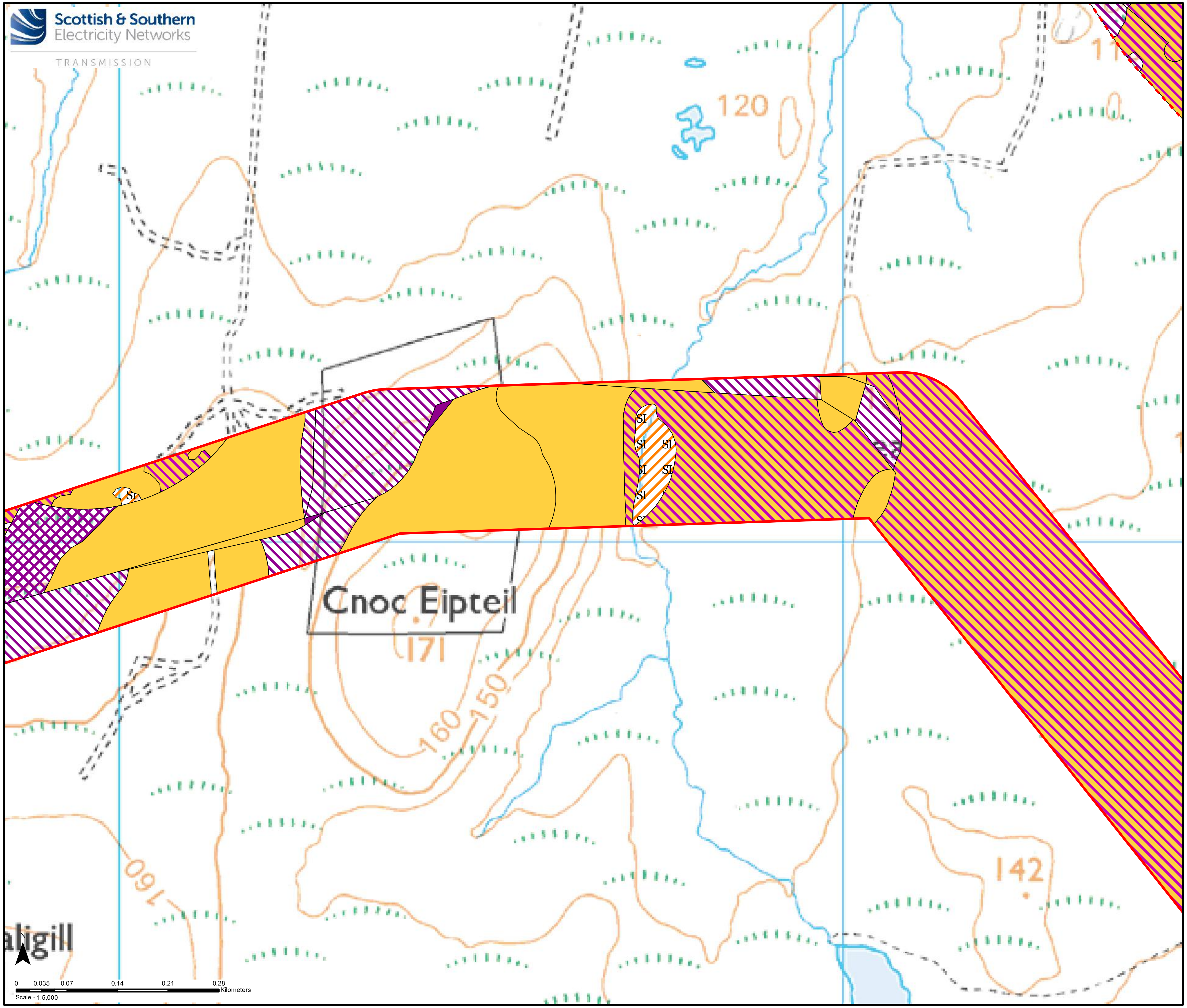
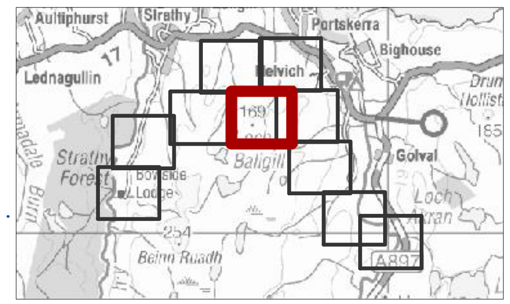


Key

100 m Buffer of Proposed Route
200 m Buffer of Alternative Route

Habitat survey results

- B1.2 - Acid grassland - semi-improved
- D1.1 - Dry dwarf shrub heath - acid
- D2 - Wet dwarf shrub heath
- E1.6.1 - Blanket sphagnum bog
- E1.7 - Wet modified bog
- E1.8 - Dry modified bog
- J5 - Other habitat



Project No: LT560

Project: Strathy South Wind Farm Grid Connection

Title: Figure 5
Habitat Survey Results within 100 m of routes
Sheet 6 of 10

Drawn by: AC 16/02/2024

Drawing: ECO02857-0033-01 Sheet 6 of 10

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Scottish & Southern Electricity Networks
TRANSMISSION

Cnoc a'Choire Mhòir

Coire Mòr

Loch M

140

130

142

118

N

0 0.035 0.07 0.14 0.21 0.28 Kilometers

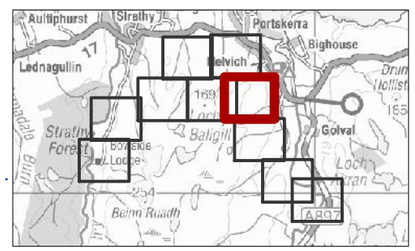
Scale - 1:5,000

Key

- 100 m Buffer of Proposed Route
- 200 m Buffer of Alternative Route

Habitat survey results

- C1.1 - Bracken - continuous
- C1.1/E2.1 - Continuous bracken/flush and spring - acid/neutral flush mosaic
- D1.1 - Dry dwarf shrub heath - acid
- D2 - Wet dwarf shrub heath
- D2/E1.8 - Wet dwarf shrub heath/dry modified bog mosaic
- E1.7 - Wet modified bog
- E1.8 - Dry modified bog
- E2.1 - Flush and spring - acid/neutral flush
- G1.4 - Standing water - dystrophic
- G2.4 - Running water - dystrophic
- J5 - Other habitat



Project No:	LT560
Project:	Strathy South Wind Farm Grid Connection
Title:	Figure 5 Habitat Survey Results within 100 m of routes Sheet 7 of 10
Drawn by:	AC 16/02/2024
Drawing:	ECO02857-0033-01 Sheet 7 of 10

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