Scottish & Southern Electricity Networks

TRANSMISSION

Beauly to Blackhillock to New Deer to Peterhead 400 kV Project

Environmental Impact Assessment Report

Volume 5 | Technical Appendices

Appendix 6.1 – Scoping Report

Scottish & Southern Electricity Networks

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Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

Environmental Impact Assessment: Scoping Report

June 2024

Scottish & Southern Electricity Networks

TRANSMISSION

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GLOSSARY

Term	Definition
Aberdeenshire Council Archaeology Service (ACAS)	Aberdeenshire Council Archaeology Service (ACAS) has the role of locating, evaluating, safeguarding, and interpreting all archaeological sites within four council areas (Aberdeenshire Council, Moray Council, Angus Council and Aberdeen City Council). This information is held in the Historic Environment Record (formerly known as the Sites and Monuments Record), which is publicly accessible online.
Alignment	A centre line of an overhead line, along with location of key angle structures.
Alignment (preferred)	An alignment for the overhead line taken forward to stakeholder consultation following a comparative appraisal of alignment options.
Alignment (proposed)	An alignment taken forward to consent application. It comprises a defined centre line for the overhead line and includes an indicative support structure (tower or pole) schedule, also specifying access arrangements and any associated construction facilities.
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.
Annex I (as listed on the EC Habitats Directive)	Annex I to the EC Habitats Directive lists the types of habitats and the animal and plant species whose conservation requires the designation of special areas of conservation. Some are defined as 'priority' habitats or species in danger of disappearing and for which there are specific rules.
Ancient Woodland Inventory (AWI)	A database of land that is currently wooded and has been continually wooded, at least since 1750.
AOD	Above Ordnance Datum
Background Noise (BGN)	Background noise is the noise level in the absence of the industrial noise source under consideration.
Birds of Conservation Concern (BoCC)	Birds of Conservation Concern (BoCC) provides the status of all regularly occurring birds in the UK, Channel Islands and Isle of Man. The current version is BoCC 5. Birds of highest conservation concern will appear on the Red List.
Bird Protection Plan	A bespoke Bird Protection Plan (BPP) focuses on the specific species and aspects of the Proposed Development which pose a risk of adverse impacts, in order to ensure that all reasonable precautions are taken to protect them from significant adverse effects.
Class 1 and Class 2 Peatland	Class 1 – Nationally important carbon-rich soils, deep peat and priority peatland habitat. Areas likely to be of high conservation value. Class 2 – Nationally important carbon-rich soils, deep peat and priority peatland habitat. Areas of potentially high conservation value and restoration potential.
Competent Authority	A 'competent authority' is the authority with the power or duty to determine whether or not a proposal can proceed. They are responsible for undertaking a Habitats Regulations Appraisal (HRA).
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.
Construction Noise Impact Assessment (CNIA)	Construction Noise Impact Assessment. The basic principle of any noise impact assessment is to assess the change in the acoustic environment that will be brought about by the proposed development. The assessment of construction noise complies with best practice (BS5228), Code of Practice for Noise and Vibration Control on Construction and Open Sites.
Construction Noise Management Plan (CNMP)	A site specific noise management plan that demonstrate competence and commitment to controlling noise pollution. Developed in line with best

Term	Definition
	practice (BS5228-1) by the Principal Contractor prior to starting construction works.
Conductor	A metallic wire strung from structure to structure, to carry electric current.
Consultation	The dynamic process of dialogue between individuals or groups, based on a genuine exchange of views, normally, with the objective of influencing decisions, policies or programmes of action.
Corridor	A linear area which allows a continuous connection between defined connection points. The corridor may vary in width along its length; in unconstrained areas it may be many kilometres wide.
Design Manual for Roads and Bridges (DMRB)	The Design Manual for Roads and Bridges (DMRB) contains information about current design standards relating to the design, assessment and operation of motorway and all-purpose trunk roads in the United Kingdom.
Environmental Impact Assessment (EIA)	Environmental Impact Assessment. A formal process codified by EU directive 2011/92/EU, and subsequently amended by Directive 2014/52/EU. The national regulations are set out in The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017. The EIA process is set out in Regulation 4(1) of the regulations and includes the preparation of an EIA Report by the developer to systematically identify, predict, assess and report on the likely significant environmental impacts of a proposed project or development.
European Designated Site	An area of land subject to protection through European legislation, including Special Areas of Conservation (SAC) and Special Protection Areas (SPA).
European Protected Species (EPS)	Species of plants and animals (other than birds) protected by law throughout the European Union.
Forestry and Land Scotland (FLS)	Forestry and Land Scotland is the Scottish Government agency responsible for managing Scotland's national forests and land.
Gardens and Designed Landscapes (GDLs)	The Inventory of Gardens and Designed Landscapes lists those gardens or designed landscapes which are considered by a panel of experts to be of national importance.
General Environmental Management Plans (GEMPs)	A series of standardised construction environmental management plans produced by SSEN Transmission.
Gigawatt (GW)	One billion watts.
Ground Water Dependent Terrestrial Ecosystem (GWDTE)	Wetlands which critically depend on groundwater flows. They are safeguarded by the Water Framework Directive (WFD) and are sensitive to hydrological and ecological changes.
Habitat	Term most accurately meaning the place in which a species lives, but also used to describe plant communities or agglomerations of plant communities.
Habitats Regulations Appraisal (HRA)	Appraisal to determine whether the Proposed Development will give rise to Likely Significant Effects on European designated sites in line with the Conservation (Natural Habitats, &c.) Regulations 1994.
High Voltage Direct Current (HVDC)	A high voltage, direct current (HVDC) electric power transmission system uses direct current for electric power transmission, in contrast to the more common alternating current systems. Most HVDC links use voltages between 100 kV and 800 kV.
Highland Council Historic Environment Team (HCHET)	The Highland Council Historic Environment Team (HET) has direct responsibility for the management and conservation of the historic and archaeological heritage of the Scottish Highlands.
Historic Environment Record (HER)	Sources of, and signposts to, information relating to landscapes, buildings, monuments, sites, places, areas and archaeological finds spanning more than 700,000 years. Based in mainly local authorities, they are used for planning and development control but also fulfil an educational role.

Term	Definition
Historic Environment Scotland (HES)	Organisation responsible for investigating, caring for and promoting Scotland's historic environment.
Kilovolt (kV)	One thousand volts.
Landscape and Visual Impact Assessment (LVIA)	A chapter within the EIA Report to systematically identify, predict, assess and report on the likely significant landscape and visual impacts of a proposed project or development.
Landscape Character Type (LCT)	A distinct, recognisable and consistent pattern of elements in a landscape that differentiate the area from another.
Level of Impact	The outcome of a comparative appraisal of the combination of effects within a specific topic along a specific corridor option after a consideration of the potential for mitigation, using professional judgement based on experience.
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.
Limit of Deviation (LOD)	The area either side of the proposed alignment within which micrositing of structures may take place in accordance with the conditions of the Section 37 consent.
Local Nature Reserve	Areas of natural heritage that are locally important.
Micrositing	The process of positioning individual structures to avoid localised environmental or technical constraints.
Mitigation	Term used to indicate avoidance, remediation or alleviation of adverse impacts.
Multi-Criteria Analysis (MCA)	A method of remotely mapping habitats at large scale using a variety of datasets and data weightings to assign habitat types.
National Biodiversity Network (NBN)	The National Biodiversity Network (NBN) is a collaborative venture in the United Kingdom, which is committed to making biodiversity information available through the internet via the NBN Atlas - the data search website of the NBN.
National Library of Scotland (NLS)	The National Library of Scotland is a reference library with world-class collections. It is also Scotland's largest library and one of the major research libraries in Europe.
National Nature Reserve	Areas of natural heritage that are nationally important.
National Scenic Area (NSA)	A national level designation applied to those landscapes considered to be of outstanding scenic value in a national context.
Network Options Assessment (NOA)	The National Grid's Network Options Assessment (NOA) provides their recommendation for which network reinforcement projects should receive investment, and when.
Noise Sensitive Receptors (NSR)	Noise sensitive receptors are defined as receptors which are potentially sensitive to noise and vibration. Examples include dwellings, hospitals, schools and community facilities.
Operational Corridor (OC)	The area either site of the OHL which needs to remain clear of trees
Ordnance Survey (OS)	Great Britain's national mapping agency.
Ornithological Impact Assessment (OIA)	Ornithological Impact Assessments (OIA) are undertaken to determine the potential impacts of proposed developments on birds and the likelihood of their occurrence. Carried out in accordance with the CIEEM Guidelines for Ecological Impact Assessment (2018), and with due consideration of any other relevant legislation, policy or guidance.
Overhead line (OHL)	An electric line installed above ground, usually supported by lattice steel towers or poles.
Plantation Woodland	Woodland of any age that obviously originated from planting.

Term	Definition
Proposed Development	A new double circuit steel structure 400 kilovolt (kV) overhead transmission line to connect into new substation sites at Beauly, Blackhillock, New Deer and Peterhead.
RAG Rating	A Red, Amber, Green rating provided to assess the potential impact of the proposed overhead line.
Ramsar	A wetland site designated to be of international importance under the Ramsar Convention.
Route	A linear area of approximately 1 km width (although this may be narrower/wider in specific locations in response to identified pinch points / constraints), which provides a continuous connection between defined connection points.
Route (preferred)	A route for the overhead line taken forward to stakeholder consultation following a comparative appraisal of route options.
Route (proposed)	A route taken forward following stakeholder consultation to the alignment selection stage of the overhead line routeing process.
Routeing	The work undertaken which leads to the selection of a proposed alignment, capable of being taken forward into the consenting process under Section 37 of the Electricity Act 1989.
Royal Society for the Protection of Birds (RSPB)	The RSPB is a non-statutory body incorporated by Royal Charter and registered as a charity since 1968. The RSPB works to protect and restore the natural world for birds and other wildlife.
Scottish Biodiversity List (SBL)	The Scottish Biodiversity List is a list of species and habitats of particular importance for the conservation of biodiversity in Scotland.
Scottish Environment Protection Agency (SEPA)	Scotland's principal environmental regulator, protecting and improving Scotland's environment.
Scheduled Monument	A monument which has been scheduled by the Scottish Ministers as being of national importance under the Ancient Monuments and Archaeological Areas Act 1979.
Section	Due to the length of the project, it has been necessary to split the route into 'sections' to more easily describe, identify and assess the Proposed Development. There are three sections, one for each impacted local planning authority.
Scottish National Record of the Historic Environment (SNRHE)	Canmore is the online catalogue of the Scottish National Record of the Historic Environment (SNRHE). Compiled and managed by Historic Environment Scotland, Canmore contains over 320,000 records and 1.3 million catalogue entries from all its survey and recording work, as well as from a wide range of other organisations, communities and individuals who are helping to enhance this national resource.
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.
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.
Span	The section of overhead line between two supporting structures.
Special Area of Conservation (SAC)	An area designated under the EC Habitats Directive (Directive 92/43/EEC) 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)	Special Landscape Areas (SLAs) are regionally valuable landscapes identified by a local planning authority (The Highland Council, Moray Council and Aberdeenshire Council) to protect and enhance landscape qualities and promote their enjoyment

Term	Definition
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.
Target Species	Legally protected and notable species of conservation concern.
The National Grid	The electricity transmission network in Great Britain.
UK Habitat Survey (UKHab)	The UK Habitat Classification is a unified and comprehensive approach to classifying habitats, designed to provide a simple and robust approach to survey and monitoring for the 21st Century.
Underground Cable	An electric cable installed below ground, protected by insulating layers and marked closer to the surface to prevent accidental damage through later earthworks.
Volts	The international unit of electric potential and electromotive force.
Wayleave	A voluntary agreement entered into between SSEN Transmission and a landowner upon whose land an overhead line is to be constructed for the installation and retention of the transmission equipment.
Wild Land Area (WLA)	A series of 42 mapped areas which have been identified by NatureScot as comprising the most extensive areas of high wildness within Scotland, following a process of interpretive mapping and site survey. WLA is not a statutory designation but these areas are considered to be nationally important.

EXECUTIVE SUMMARY

This Scoping Report has been prepared by WSP UK Ltd. on behalf of Scottish Hydro Electric Transmission plc ('the Applicant') who, operating and known as Scottish and Southern Electricity Networks Transmission ('SSEN Transmission'), owns, operates and maintains the electricity transmission network across the north of Scotland and remote islands. In this Scoping Report, the Applicant and SSEN Transmission are used interchangeably unless the context requires otherwise.

The Applicant is proposing to submit an application for consent to construct and operate a new 400 kilovolt (kV) overhead transmission line (OHL) between new proposed substations at Beauly, Blackhillock, New Deer, and Peterhead. The project being promoted is known as the Beauly to Blackhillock to New Deer to Peterhead 400 kV OHL Project and it is referred to in this report as the 'Proposed Development'. The Proposed Development also includes the diversion of an existing 400 kV OHL into the new Coachford 400 kV substation near Blackhillock, removal of the existing 132 kV OHL from Beauly to Knocknagael substations, and rationalisation and crossings of the existing transmission network.

In order to support the continued growth in onshore and offshore renewables across the North of Scotland, supporting the country's drive towards Net Zero, further investment in infrastructure is needed to connect this renewable power and transport it from source to areas of demand across the country.

Beauly to Peterhead has been identified by SSEN Transmission as a key corridor in establishing this required reinforcement, connecting into new substation sites at Beauly, Blackhillock, New Deer and Peterhead along the way. This project requires new 400 kV connection infrastructure, which is expected to be OHL.

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

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

The Applicant invites consultees to comment on the following:

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

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

Email: Econsents_Admin@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: heather.gray@sse.com

OR

For the Attention of Heather Gray
SSEN Transmission
Grampian House
200 Dunkeld Road
Perth
PH1 3AQ

1. INTRODUCTION

1.1 The Proposals

1.1.1 Scottish Hydro Electric Transmission plc ('the Applicant') is a wholly owned subsidiary of the SSE plc group of companies. Operating and known as Scottish and Southern Electricity Networks Transmission ('SSEN Transmission') it owns and maintains the electricity transmission network across the north of Scotland and remote islands. It holds a licence under the Electricity Act 1989 to develop and maintain an efficient, co-ordinated and economical system of electricity transmission. 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 for consent to construct and operate a new double circuit steel structure 400 kilovolt (kV) overhead transmission line (OHL) to connect into new substation sites at Beauly, Blackhillock, New Deer and Peterhead. The project is referred to as the Beauly to Blackhillock to New Deer to Peterhead 400kV OHL Project (and hereafter as 'the Proposed Development') and will pass through the local planning authority areas of Highland, Moray and Aberdeenshire. An overview of the Proposed Development is shown on **Figure 1: Site Location Plan**. The Proposed Development also includes the diversion of an existing 400 kV OHL into the new Coachford 400 kV substation near Blackhillock, removal of the existing 132 kV OHL from Beauly to Knocknagael substations, and rationalisation and crossings of the existing transmission network.

1.1.3 Extensive studies completed to inform the Electricity System Operator' (ESO)'s 'Pathway to 2030' Holistic Network Design (HND) study[1] have identified the need to reinforce the onshore corridor from Beauly to Peterhead, via Blackhillock and New Deer. Providing a new 400 kV connection between these locations enables the significant power transfer needed to take power from future large scale onshore and offshore low carbon renewable generation to areas of demand. The additional connection points into Blackhillock and New Deer are also needed to pick up power on route from additional large scale onshore and offshore low carbon renewable generation required to connect into the northeast of Scotland.

1.1.4 The Proposed Development represents a long-term approach in relation to planning for future transmission infrastructure requirements, particularly having regard to targets fixed by the Scottish and UK Governments to achieve net zero by 2045 and 2050 respectively. The policy objective of "net zero" is the reduction of carbon emissions by 100 % from 1990 levels by 2050 in order to avoid the worst impacts of climate change and seeks to limit global warming to 1.5 degrees centigrade. This target applies to all sectors of the economy, including energy.

1.1.5 Given the length of the Proposed Development of approximately 192 km, the project will be split into three 'sections' by local planning authority area (Highland, Moray and Aberdeenshire) to more easily describe the Proposed Development and the differing landform and land use and to simplify consenting. These sections are illustrated in **Figure 1**.

1.2 The EIA Regulations

1.2.1 An application for consent for the OHL will be made to the Scottish Ministers under section 37 of the Electricity Act 1989[2], along with a request for a direction that planning permission be deemed to be granted under section 57 (2) of the Town and Country Planning (Scotland) Act 1997[3], as amended, for construction and operation of the OHL and carrying out of ancillary works.

1.2.2 Certain ancillary works would be associated with the Proposed Development such as the formation of bellmouths at public road access points, temporary and permanent construction access tracks and tower working areas, construction compounds, borrow pits to provide stone, vegetation clearance and management, and other temporary measures required during construction. Whilst the section 37 consent is concerned only with the

[1] National Grid ESO (July 2022). Pathway to 2030: A holistic network design to support offshore wind deployment for net zero. Available: https://www.nationalgrideso.com/future-energy/the-pathway-2030-holistic-network-design

[2] UK Government (1989). The Electricity Act 1989. Available at: https://www.legislation.gov.uk/ukpga/1989/29/contents

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

installation of the OHL, the Applicant will also seek deemed planning permission for the OHL and such ancillary development under section 57(2) of the Town and Country Planning (Scotland) Act 1997.

1.2.3 The applicable EIA Regulations are the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017[4], hereafter referred to as the "EIA Regulations". Schedule 1 of the EIA Regulations lists projects where EIA is mandatory. The Proposed Development is categorised as 'Schedule 1' under category (3) "*construction of overhead electrical power lines with a voltage of 220 kilovolts or more and a length of more than 15 kilometres*". The Applicant has committed to preparing an EIA Report to accompany the application for consent, in accordance with the requirements of the EIA Regulations.

1.2.4 To facilitate construction of the Proposed Development, modification to the electricity distribution network will be required, such as where the Proposed Development crosses a distribution line. These works do not form part of the consent under section 37 of the Electricity Act 1989 for the Proposed Development but are a consequence of its construction. These works are therefore included here as 'associated works' for the purposes of the EIA.

1.2.5 Other related works include the need to build new substations at Beauly (Fanellan 400 kV substation), Blackhillock (Coachford 400 kV substation), New Deer (Greens 400 kV substation) and Peterhead (Netherton 400 kV substation). The substation developments are being progressed separately and do not form part of the Proposed Development. They will be subject to the appropriate consenting processes as set out in the Town and Country Planning (Scotland) Act 1997.

1.3 Purpose of the EIA Scoping Report

1.3.1 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.

1.3.2 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.

1.4 Scoping Report Methodology

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

- Landscape and Visual Amenity;
- Ecology and Nature Conservation;
- Ornithology;
- Cultural Heritage;
- Water and Geological Environment;
- Forestry;

[4] UK Government (2017). The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017. Available at https://www.legislation.gov.uk/ssi/2017/101/introduction/made.

- Traffic and Transport;
- Recreation and Tourism;
- Noise and Vibration;
- Other Issues Scoped out of the EIA:
  - Land Use;
  - Air Quality and Climate;
  - Material Assets and Waste;
  - Accidents and Disasters;
  - Electromagnetic Fields;
  - Radio and TV Interference; and
  - Population and Human Health.

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

1.4.3 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.

1.5 Corridor, Route and Alignment Selection

1.5.1 A detailed alignment selection process has been, and continues to be, undertaken to identify the OHL alignment which best balances environmental, technical and economic factors. Environmental designations and key sensitive receptors have been avoided where possible throughout the process. At each of the three stages, 'corridor', 'route', and 'alignment', options are identified, appraised and then consulted on before decisions are made and the design moves to the following stage. Each stage presents more detailed options than the previous, to ultimately arrive at the Proposed Alignment which will be taken into the EIA stage.

1.5.2 In September 2022 the first consultation was undertaken and a Consultation Document was prepared to set out the project need and describe the Beauly to Blackhillock to New Deer to Peterhead 400 kV OHL Project, seeking comments from stakeholders and members of the public on the corridor option studies undertaken, and the rationale for, and approach to, the selection of the Preferred Corridor.[5] Comments received were documented in a Report on Consultation (March 2023), which set out the consultation process for the project during the corridor option stage, how feedback was taken into account, and confirmed the Proposed Corridor.[6]

1.5.3 Within the Proposed Corridor a series of route options were identified, and in April 2023 a Consultation Document was prepared seeking 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 Preferred Route[7]. Comments received were documented in a Report on Consultation (November 2023), which set out the consultation process during the route option stage, how feedback was taken into account and confirmed the Proposed Route[8].

1.5.4 Work is currently being undertaken to identify and appraise OHL alignment options located within the Proposed Route, which will be the subject of an alignment stage Consultation Document, to be issued in early 2024.

1.5.5 The location of the new substations required at Beauly, Blackhillock, New Deer and Peterhead, into which the Proposed Development will connect, has been informed by separate site selection studies and consultation with

[5] SSEN Transmission, (September 2022): *Consultation Document – Corridor Selection Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection.*
[6] SSEN Transmission, (March 2023): *Beauly Blackhillock New Deer Peterhead 400 kV OHL Report on Consultation – Corridor.*
[7] SSEN Transmission, (April 2023): *Consultation Document – Route Selection Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection.*
[8] SSEN Transmission, (November 2023): *Beauly to Blackhillock to New Deer to Peterhead 400 kV OHL Report on Consultation.*

stakeholders and the public. The substation developments are being progressed separately and do not form part of the Proposed Development.

1.6 OHL Contractor

1.6.1 SSEN Transmission has engaged an experienced OHL construction contractor to inform the identification of a Preferred Alignment, to explore the advantages, disadvantages and constructability of OHL alignment options. This has proven valuable at this early stage of the project in terms of providing confidence in the buildability of alignment options, and construction access opportunities. Whilst the full access strategy is still being developed, construction and operational access requirements will be a key consideration in informing the Preferred Alignment, utilising existing access where possible and identifying access routes to facilitate the OHL.

2. DESCRIPTION OF THE PROPOSED DEVELOPMENT

2.1 Introduction

2.1.1 The Proposed Development would primarily comprise the construction of a new double circuit steel structure 400 kV OHL between new substations at Beauly, Blackhillock, New Deer and Peterhead, approximately 192 km in length. The Proposed Development also includes the diversion of an existing 400 kV OHL into the new Coachford 400 kV substation near Blackhillock, removal of the existing 132 kV OHL from Beauly to Knocknagael Substations, and rationalisation and crossings of the existing transmission network.

2.2 The Need for the Project

2.2.1 In order to support the continued growth in onshore and offshore renewables across the north of Scotland, supporting the country's drive towards Net Zero, further investment in network infrastructure is needed to connect this renewable power and transport it from source to areas of demand across the country.

2.2.2 Extensive studies completed to inform the Electricity System Operator' (ESO)'s 'Pathway to 2030' Holistic Network Design (HND) study have identified the need to reinforce the onshore corridor from Beauly to Peterhead, via Blackhillock and New Deer. Providing a new 400 kV connection between these locations enables the significant power transfer needed to take power from large scale onshore and offshore low carbon renewable generation connecting from the Western Isles (via a 1.8 GW subsea high voltage direct current (HVDC) link) and from connections north of Beauly (via a new Spittal to Loch Buidhe to Beauly 400 kV OHL), to the east at Peterhead and offshore via two subsea HVDC links to England. The additional connection points into Blackhillock and New Deer are also needed to pick up power on route from additional large scale onshore and offshore low carbon renewable generation required to connect into the northeast of Scotland.

2.2.3 This need was supported by instruction to 'proceed' in National Grid's Network Options Assessment (NOA) Refresh Report 2021/22[9].

2.3 Proposed Development Components

2.3.1 The Proposed Development will comprise steel lattice towers from the SSEN Transmission ASTI SSE400 tower suite. The size of towers and span lengths is generally dependent on three main factors: altitude; weather; and the topography of the route. Towers are typically closer together at high altitudes to withstand the effects of greater exposure to high winds, ice and other weather events. Higher towers may be required in certain locations to maintain the required ground clearance heights, such as at road, river and rail crossings.

2.3.2 Some permanent access tracks will also be required to be constructed.

2.3.3 Rationalisation works involving the undergrounding of existing lines is also being considered, where a significant benefit is identified. Where this relates to electricity transmission infrastructure (132 kV and above) it is included as part of the Proposed Development.

2.3.4 Modification of the existing electricity distribution network in some areas is also likely to be required to accommodate the new OHL. These works do not form part of the Proposed Development but are included here as 'associated works' for the purposes of the EIA.

2.4 Limit of Deviation

2.4.1 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 Limit of Deviation (LOD) to allow flexibility in the final siting of individual towers and construction access to reflect localised land, engineering and environmental constraints.

[9] National Grid ESO (July 2022). Network Options Assessment 2021/22 Refresh. Available at: https://www.nationalgrideso.com/research-publications/network-options-assessment-noa

2.4.2 The horizontal LOD, for which consent will be sought, will be refined through the EIA process, and will ultimately seek to balance the need for flexibility in micro-siting with the desirability of avoiding, reducing or controlling the potential for environmental impact. It is anticipated the LOD would be up to 100 m either side of proposed infrastructure, however it may vary depending on local constraints.

2.4.3 A vertical LOD, i.e. the maximum height of a pole or 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 standard tower designs (see Section 2.6 below), some structure heights may vary depending on topography.

2.5 Decommissioning the Proposed Development

2.5.1 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.

2.6 OHL Design

Physical Characteristics of the OHL

2.6.1 The steel structures will be of lattice design from the SSEN Transmission ASTI SSE400 tower suite. Towers would be 57 m in height on average, although tower heights may be increased where local topography dictates in order to achieve sufficient clearance distances[10].

2.6.2 The proposed steel lattice towers would support six conductor bundles (3 wires per bundle) on six cross-arms (three on each side) and an earth wire between the peaks. The span lengths between towers would vary depending on topography and altitude but would be approximately 350 m apart. 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.

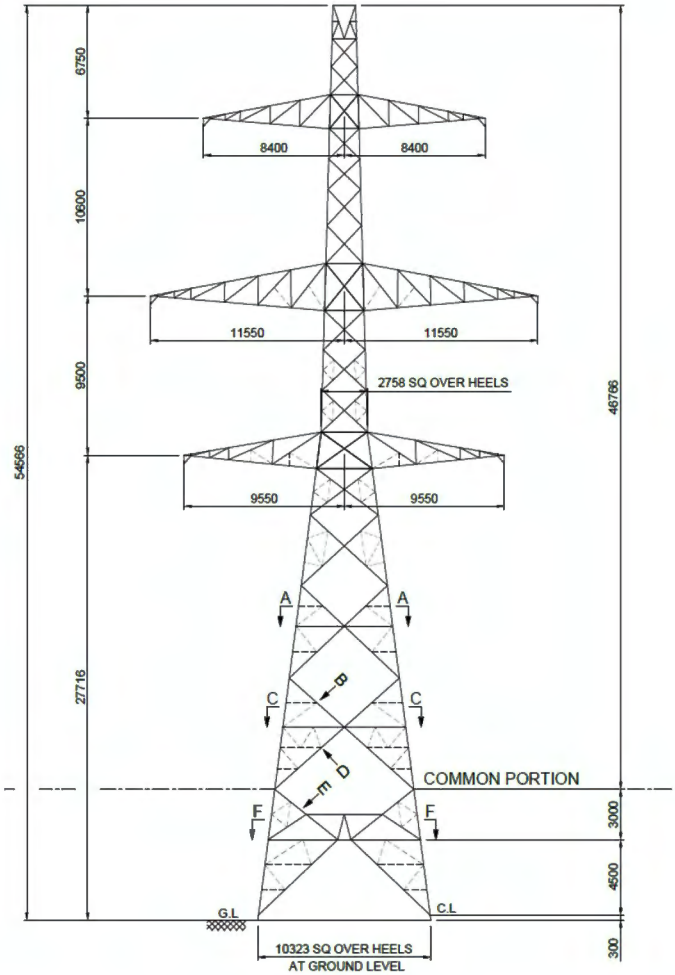
2.6.3 Typical tower designs can be seen in **Plate 2.1**[11] and a schematic of the proposed steel lattice towers is shown in **Plate 2.2.**

[10] In certain locations, such as the Caledonian Canal, specific crossing towers may be required which will exceed the maximum height of the standard ASTI SSE400 tower suite and could be in the region of 90 m in height. This is to ensure that all statutory clearance requirements are maintained.

[11] The existing SSE400 tower suite design is currently being modified to provide stronger tower structures. The final tower design and appearance may differ slightly from the existing SSE400 tower suite shown in Plate 2.1.

Plate 2.1 – Existing SSE400 steel lattice tower design

Plate 2.2 – Proposed ASTI SSE400 Steel Lattice Tower Typical Schematic



2.7 OHL Construction

2.7.1 High voltage OHL construction typically follows a standard sequence of events as follows:

- Phase 1 – enabling works;
- Phase 2 – OHL construction;
- Phase 3 – OHL commissioning; and
- Phase 4 – re-instatement.

2.7.2 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

2.7.3 It is anticipated that construction of the proposed OHL would take place over a four year period, although detailed programming of works would be the responsibility of the Principal Contractor in agreement with SSEN Transmission. It is anticipated that construction of the proposed OHL would commence in 2026, with an estimated completion date of October 2030. The detailed construction phasing and programme would be subject to change as the design progresses and also due to necessary consents and wayleaves being agreed. Further information will be provided in the EIA Report on the indicative construction programme.

Standard Mitigation and Working Methods

2.7.4 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).

2.7.5 A Construction Environment Management Plan (CEMP) will be developed for the project and adopted by the Principal 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 will form part of the contractor documents between the Applicant and the appointed construction contractor.

2.8 Construction Practices and Phasing

Phase 1 - Enabling Works

Existing Distribution and Transmission Lines

2.8.1 Works would be required to some existing electricity distribution network infrastructure and 132 kV, 275 kV and 400 kV transmission network infrastructure to facilitate safe working and operating conditions given the proximity of the existing OHLs to the proposed OHL. It is anticipated that these network assets would be realigned or undergrounded to make way for the Proposed Development. Specific details are not available at this stage however, where this relates to electricity transmission infrastructure (132 kV and above), it is included as part of the Proposed Development. For electricity distribution infrastructure these works do not form part of the Proposed Development, but are included here as 'associated works' for the purposes of the EIA.

Access during Construction

2.8.2 The commissioning by SSEN Transmission of an experienced OHL contractor has enabled construction access considerations to be at the forefront during the design process. Whilst construction access details are yet to be finalised, an access track matrix will be developed by the project team considering both construction and

operational access requirements, and with reference to NatureScot's good practice guide on constructing tracks in Scottish uplands[12]. Typical access solutions are set out below with respect to the different technology types under consideration, and will be subject to on-going review through the design process and EIA stages of the project.

2.8.3 In general, proposed construction site access would be taken via the existing public road network and would make use of existing forest and estate tracks as far as practicable, upgraded as required. Existing bellmouths would be utilised where possible, subject to improvements. New bellmouths would likely be required at some locations.

2.8.4 Access track design would likely range from All Terrain Vehicle (ATV) routes with no formal track to a stone road suitable for 4x4 and waggon access. The selection of the type of track required will consider the proximity to a public road, structure type and potential maintenance activities / vehicles required in future to a given location (taking legal health & safety requirements into account). Access track details will be finalised through the EIA stage of the project and presented to illustrate where each access type will be deployed, and the rationale for that selection.

2.8.5 Materials required for the construction of any new stone access tracks 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.

Steel Lattice OHL Construction Access

2.8.6 Typically, new stone tracks are likely to be required to access each steel tower location, as well as the requirement for inline access between towers. Stone tracks are designed to suit the heavy plant loads required for construction works for steel towers, and to suit the varied ground conditions along the route. It is anticipated that stone tracks would be constructed to a minimum 4 m safe running surface width. On completion of construction, unless required for operational access, the stone tracks would be removed and the original material reinstated.

2.8.7 Where access to tower positions is difficult due to steep terrain, alternative methods would be proposed such as using smaller items of plant, specialist tracked plant, and in some cases using helicopters for moving materials.

2.8.8 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, due to the length of time they are required to be in place and 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. Similarly, the extensive use of wide tracked excavators and other plant without prior ground preparation are unlikely to be a viable solution for this project in its entirety, although they may be used for certain tasks during construction.

2.8.9 The use of helicopters for construction of steel lattice towers is feasible, however, the operational restrictions (e.g. weather, proximity to public roads and environmental factors), and the significant cost implications, for a project of this scale are key considerations. The use of helicopters is likely to be required in more remote sections of the project, and where particular environmental or geographical constraints necessitate their use. Where helicopters are used, construction plant would still require access to each tower location to facilitate construction and erection of towers. Helicopter landing zones would also require to be identified.

Access during Operation

2.8.10 Permanent access tracks would only be required in more remote areas where access during construction requires a higher specification track, and where long term maintenance needs require permanent access. It is intended however to keep requirements for permanent access tracks to a minimum. Where required, permanent tracks would be reinstated to a width suitable for 4x4 vehicles.

[12] Scottish Natural Heritage (Updated September 2015) Constructed tracks in the Scottish Uplands. Available at: https://cairngorms.co.uk/wp-content/uploads/2019/09/CD039-Scottish-Natural-Heritage-Constructed-tracks-in-the-Scottish-Uplands-2015.pdf.

Forestry Clearance

2.8.11 The Proposed Development would pass through or close to areas of woodland and commercial forestry. Where the Proposed Development passes through areas of woodland or forestry, a wayleave corridor would be required. The width of this corridor would be variable depending on the nature of the woodland or forestry.

Site Compounds

2.8.12 It is currently anticipated that a number of construction compounds and laydown areas would be required given the scale of the Proposed Development, the locations of which would be confirmed by the Principal Contractor.

Phase 2 – Construction Works

Foundations

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

- spread type e.g. concrete pad and chimney; or
- piled type e.g. driven concrete, tube and micro pile; or augered.

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

Steel Lattice Tower Construction

2.8.15 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 100 m x 100 m, is required at each tower location to facilitate access, laydown and assembly.

Conductor Stringing

2.8.16 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.

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

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

Phase 3 - Commissioning

2.8.19 The OHL and support towers would then be subject to an inspection and snagging process. This allows the Principal 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

2.8.20 Following commissioning of the Proposed Development, it is anticipated that all construction sites would be reinstated. Reinstatement would form part of the contract obligations for the Principal Contractor and would

include the removal of all temporary access tracks, all work sites around the tower locations and the re-vegetation of all construction compounds.

2.9 Construction Employment and Hours of Work

2.9.1 SSEN Transmission takes community responsibilities seriously. The delivery of a major programme of capital investment provides the opportunity to maximise support of local communities.

2.9.2 Employment of construction staff will be the responsibility of the Principal Contractor but SSEN Transmission encourages the Principal Contractor to make use of suitable labour and resources from areas local to the location of the works.

2.9.3 It is envisaged that there will be a number of separate teams working at the same time at different locations along the Proposed Development route. The resource levels will be dependent on the final construction sequence and will be determined by the Principal Contractor.

2.9.4 Construction working is likely to be during daytime periods only. Working hours are currently anticipated to be between approximately 07:00 to 19:00 during British Summer Time (BST) and 07:00 to 18:00 during Greenwich Mean Time (GMT), seven days a week. Special measures and arrangements would be made for works in proximity to sensitive receptors. Working hour assumptions would be set out within the EIA Report and confirmed with the respective local planning authority. Any out of hours working would be agreed in advance with the relevant local planning authority.

2.10 Construction Traffic

2.10.1 Construction of the Proposed Development will give rise to regular numbers of staff transport movements, with small work crews travelling to work site areas. It is anticipated that the Principal Contractor will identify main compound areas, each with a safe area for parking away from the public highway. This information will be obtained later in the process at the detailed design stage and will not form part of the EIA Report.

2.10.2 Vehicle movements will be required to construct new or upgraded access roads; deliver the foundation and tower components and conductor materials to site; deliver and collect materials and construction plant from the site compounds and to individual tower locations.

2.10.3 Where practicable helicopters may be utilised for delivery of construction materials, so as to minimise potential impacts upon soils and the landscape from conventional traffic. The sourcing and implementation of helicopters for this purpose would be defined by the Principal Contractor.

2.10.4 The EIA Report will provide a summary of the total anticipated traffic movements associated with construction of the Proposed Development, broken down by phases. The environmental effects of traffic movements are described in Chapter 12.

2.11 Operation and Management of the OHL

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

2.11.2 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.

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 Good Practice Guidance published by the Scottish Government's Energy Consents Unit in February 2022[13]. Consideration will also be given to advice contained in Planning Circular 1/2013 and 1/2017 (Environmental Impact Assessment), and other good practice guidance documents where relevant.

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 (pertaining to a particular 'section' as required, see sub-section 3.2 of this Chapter), or included as an appendix if the assessment of the subject matter requires to be more detailed.

3.1.3 On receipt and consideration of this Scoping Report, the Energy Consents Unit (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. A scoping matrix will be included in the EIA Report as part of the ECU Gatecheck Report appendix, which will detail all consultation responses related to scope, received during the scoping and EIA process, with reference to where these responses have been addressed in the EIA Report. A schedule of mitigation measures will also be included and cross-referenced in the relevant assessment work.

3.2 Structure of the EIA Report

3.2.1 Given the scale of the project, it is proposed to structure the EIA Report in a manner which provides the reader with the opportunity to easily focus on a particular area of interest. As such, it is anticipated that the EIA Report will be structured as follows:

- Volume 1 – An Overview of the project and EIA Report. This volume will provide an introduction to the EIA Report, a description of the Proposed Development, the alternatives considered, the EIA process, the approach taken to consultation and a summary of the likely significant environment effects across the Proposed Development as a whole.
- Volume 2 – Assessment Reports. There will be one report for each EIA topic scoped into the assessment. Each report will describe the baseline environment, potential effects, mitigation and likely significant environmental effects for the respective topic. Information to help sign-post the respective local planning authority areas will be included where appropriate.
- Volume 3 – Figures. This volume will provide supporting figures (primarily A3 size) to the assessments carried out as part of Volume 2.
- Volume 4 – Visualisations. This volume will provide visualisations of the Proposed Development from agreed viewpoint locations.
- Volume 5 –Appendices. This volume will include supporting appendices to the assessments carried out as part of Volume 2, and other information such as scoping and consultation responses, and assessment methodologies.
- A Non-technical Summary will form part of the EIA Report, summarising the project and its likely significant effects.
- In addition to the EIA Report other documents will support the application for consent including:
    - A Planning Statement, assessing the Proposed Development against the planning context; and
    - A Socio-economic Assessment Report.

[13] Scottish Government (2022). Good Practice Guidance for Applications under Section 36 and 37 of the Electricity Act 1989. Available at: https://www.gov.scot/publications/good-practice-guidance-applications-under-sections-36-37-electricity-act-1989/documents/

3.2.2 The description of the likely significant effects will cover direct effects and indirect (including secondary) effects. The description of effects will typically 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 Consideration will also be given to the potential for cumulative effects, where the assessment would describe the additional effect associated with the Proposed Development, when considered in combination with other reasonably foreseeable projects of a similar type (defined as those which are the subject of a valid consent or application for consent). The basis for this is that only these developments have the potential to result in significant cumulative effects in combination with those arising from the Proposed Development. The final list of developments to be considered in the cumulative effects assessment would be finalised prior to publication to allow sufficient time to compile the EIA Report. As a minimum, the four new substations will be included as cumulative development in addition to other SSEN Transmission and known 3rd party developments. This approach applies to all topics, however further detail is provided in topic sections of this report where applicable.

3.2.4 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.

3.2.5 A more detailed overview of the guidance and methodology adopted for each technical study is provided within Chapters 6 to 15 of this Scoping Report.

3.3 Consideration of Alternatives

3.3.1 The Proposed Development has been subject to a route selection process, informed by SSEN Transmission's guidance[14] which provides a framework to ensure environmental, technical and economic considerations are identified and appraised at each stage of the routeing process (see Section 1.5). This has also included the consideration of alternative technology solutions.

3.3.2 The guidance splits the routeing stage of a project into four principal stages, as follows:

- Stage 0: Routeing Strategy Development;
- Stage 1: Corridor Selection;
- Stage 2: Route Selection; and
- Stage 3: Alignment Selection.

3.3.3 Each stage is an iterative process and involves an increasing level of detail and resolution, bringing cost, technical and environmental considerations together in a way which seeks to achieve the best balance at each stage. The stages that are carried out can vary depending on the type, nature of and size of a project and consultation is carried out at each stage of the process.

3.3.4 The following documents have been produced for the corridor and route selection stages, the alignment stage is in progress:

- SSEN Transmission, (September 2022): Consultation Document – Corridor Selection Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection.
- SSEN Transmission, (March 2023): Beauly Blackhillock New Deer Peterhead 400 kV OHL Report on Consultation – Corridor.
- SSEN Transmission, (April 2023): Consultation Document – Route Selection Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection.
- SSEN Transmission, (November 2023): Beauly to Blackhillock to New Deer to Peterhead 400 kV OHL Report on Consultation – Route.

[14] SSEN Transmission (Updated September 2020). Procedures for Routeing Overhead Lines of 132kV. Available at https://www.ssen-transmission.co.uk/globalassets/projects/skye-reinforcement---section-37-application/section-37-application---volume-1---main-report/volume-1---chapter-4---the-routeing-process-and-alternatives.pdf.

3.3.5 A summary of the alternatives considered will be set out within the EIA Report, including the alternative technologies considered during the corridor, route and alignment selection process.

3.4 Mitigation

3.4.1 The routeing selection process described in Section 3.3 has sought to avoid or minimise likely significant environmental effects of the Proposed Development through careful routeing. Environmental designations and key sensitive receptors have been avoided where possible throughout the process.

3.4.2 The engagement by SSEN Transmission of an experienced Principal Contractor, coupled with the emerging findings of the EIA, 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.

3.4.3 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 Principal Contractor will be committed to implementing all the mitigation measures identified in the EIA Report.

3.5 Habitats Regulations Appraisal

3.5.1 The Proposed Development passes over, or is within the zone of influence of, a number of European designated sites, formerly known in Scotland as Natura 2000 sites.

3.5.2 The Proposed Development is not directly connected with or necessary to any European site's management for nature conservation. Therefore the Proposed Development will, under the Conservation (Natural Habitats, &c.) Regulations 1994[15] (hereafter 'the Habitats Regulations') require to undergo a screening for likely significant effects on the European sites. This screening is the first stage of a Habitats Regulations Appraisal (HRA) that is required to be carried out by the competent authority upon submission of a consent application. To inform the competent authority's HRA, a shadow HRA will be provided alongside the EIA Report.

3.5.3 The HRA will follow relevant guidance from NatureScot and EC (European Commission) Guidance on Managing Natura 2000 sites[16], together with EC Methodological Guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC which sets out the HRA procedure. The HRA procedures set out by the EC still apply in Scotland after the UK's exit from the European Union, following 2019 amendments to the Habitats Regulations.

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.

[15] The UK Government (1994). Conservation (Natural Habitats, &c.) Regulations 199. Available at: https://www.legislation.gov.uk/uksi/1994/2716/contents/made
[16] NatureScot and EC (European Commission). Managing and protecting Natura 2000 sites. Available at: https://environment.ec.europa.eu/topics/nature-and-biodiversity/natura-2000/managing-and-protecting-natura-2000-sites_en

3.6.3 Within each specialist topic described in this report, an overall description of the baseline environment is provided, followed by a summary of the potential effects, and the proposed scope of survey and assessment work required as a result.

4. SUMMARY OF SECTIONS

4.1 Introduction

4.1.1 This Chapter of the Scoping Report provides a brief summary of each of the three sections of the Proposed Route and should be read in conjunction with the following figures, which also inform the following topic sections of this report (Chapters 6 to 15).

- Figure 1: Site Location Plan
- Figure 2: Proposed Route with Environmental Constraints
- Figure 3: Proposed Route with Internationally Recognised Environmental Constraints to 20 km
- Figure 4: Landscape Character Areas

4.2 Section 1: The Highland Council

4.2.1 Section 1 starts at the proposed new substation to the southwest of Beauly (Fanellan 400 kV substation) and initially travels northeast and then east, crossing the River Beauly twice, the A833 and then running parallel to the A862 as far as Easter Moniack. Here, the route turns southeast past Reelig and then east across The Aird, passing over the Great Glen Way and then dropping into the Great Glen, crossing the A82 and the Caledonian Canal and River Ness. It continues in a south-easterly direction passing Essich and Drummossie Muir and then east, crossing the A9 north of Daviot. Continuing east, the route climbs the region around Saddle Hill, passes south of Assich Forest to Mains of Clunas and then southeast through Newlands of Fleenas Wood, crossing the River Findhorn and passing south of Ferness, thereafter finishing at the boundary with Moray Council. For the majority of this section the route runs parallel to an existing 275 kV OHL.

4.3 Section 2: Moray Council

4.3.1 Section 2 continues east, remaining south of the existing 275 kV OHL. It then widens to pass Tomdow and Cairn Eney. As the route passes the Dava Way it travels northeast, across the River Divie, towards Hill of Tomechole where it turns east, crossing upland forestry north of Loch Dallas and continuing east and then northeast towards Kellas. The route remains on the southern side of the existing 275 kV OHL, continuing east past Glanlatterach Reservoir, across Hart Hill and north of Brown Muir towards Teindland and Badentinan. It then takes a southeasterly direction crossing the Spey Valley to the north of Inchberry, taking a similar route to two existing OHLs as it crosses the River Spey and through the Wood of Ordiequish. Here the route travels southeast, widening as it approaches Keith and then splits into two route options, one to the north and one to the south of Keith, which join at the proposed Coachford 400 kV substation located on the far side of the boundary with Section 3. For the majority of this section the route runs parallel to existing OHLs.

4.3.2 To the southeast of Keith, the route encompasses the proposed diversion of the existing Blackhillock to Rothienorman 400 kV OHL into Coachford 400 kV substation. The route widens for a region between the existing Blackhillock Substation west of the A96, to the A95 and down to the new Coachford 400 kV substation site.

4.4 Section 3: Aberdeenshire Council

4.4.1 Section 3 starts at the proposed new Coachford 400 kV substation adjacent to the A96 and south of The Balloch. From here it takes an east-southeasterly direction passing between Cairney and Ruthven, crossing the River Deveron and continuing to Cobairdy, thereafter crossing the A97. It continues in this direction passing Drumblair, Feith Hill and Pitglassie where it turns northeast towards Turriff. It continues east and passes between Turriff and Hatton Castle, crosses the Idoch Water, passes Roadside and then turns southeast to connect into the proposed Greens 400 kV substation.

4.4.2 From the proposed Greens 400 kV substation, the route continues east past Allathan and the Culsh Monument to the north of New Deer settlement. It then takes a southeasterly direction to the south of Maud, Stuartfield and Inverquhomery and then connects into the new proposed Netherton 400 kV substation where the section ends. Between Maud and Inverquhomery the route widens to meet the existing 400 kV OHL to the south.

5. PLANNING POLICY

5.1 Introduction

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

5.2 National Planning Policy

National Planning Framework 4

5.2.1 National Planning Framework (NPF) provides a framework for long-term spatial development in Scotland. The fourth National Policy Framework (NPF4)[17] was adopted by the Scottish Ministers on 13 February 2023, following approval by the Scottish Parliament in January[18]. It sets out how planning and development will help Scotland to achieve a '*net zero, sustainable Scotland by 2045*.' It confirms the necessary shift required to achieve net zero-emissions by 2045. It will also 'play a critical role in supporting nature restoration and recovery' and will be followed by a Scottish biodiversity strategy which will set targets for 2030.

5.2.2 NPF4 confirms that a concerted effort to work together with communities will be required so that the transition to net zero and nature recovery is fair to all. One of the four key actions identified for Scotland's north and west islands and coastal communities is to *Strengthen Resilience and Decarbonise Connectivity* by improving grid connections. This will actively facilitate decarbonised heating and electricity generation and distribution.

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

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

5.2.4 The Proposed Development is a national development under NPF4.

5.3 Local Planning Policy

5.3.1 The Proposed Development would be considered against the following Local Development Plan documents.

Highland-wide Local Development Plan

5.3.2 The Highland Wide Local Development Plan (HwLDP) 2012[19] provides the local planning framework for the area and provides the general policy context against which the Proposed Development would be assessed. Development of the revised plan is ongoing and will be in line with NPF4.

5.3.3 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

[17] Scottish Government (2023) National Planning Framework 4. Available at: https://www.gov.scot/publications/national-planning-framework-4/
[18] Scottish Government (Updated August 2022). The Highland Wide Local Development Plan. Available at: https://www.gov.scot/publications/local-development-plan-highland/
[19] The Highland Council (2012). Highland-wide Local Development Plan. Available at: https://www.highland.gov.uk/info/178/local_and_statutory_development_plans/199/highland-wide_local_development_plan

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.

5.3.4 Other relevant policies from the HwLDP are listed in **Table 5-1.**

Table 5-1: List of Relevant HwLDP Policies

Policy Reference	Name
Policy 28	Sustainable Design
Policy 29	Design Quality and 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
Policy 78	Long Distance Routes

Inner Moray Firth Local Development Plan

5.3.5 The Inner Moray Firth Local Development Plan[20] (IMFLDP) is an area local development plan that, along with the HwLDP and Supplementary Guidance, forms The Highland Council's Development Plan that guides future development in the Highlands. The IMFLDP focuses on the Inner Moray Firth area and includes the settlements of Beauly and Kiltarlity. The plan sets out policies for safeguarding the environment for general development with particular focus on growth areas and development allocations associated with cities, towns and local centres. There are no policies or guidance associated with electricity transmission development, however it does provide additional detail to the HwLDP in relation to the safeguarding of natural environment, specifically in relation to the role of Special Landscape Areas (SLAs) and Hinterland.

5.3.6 The emerging Inner Moray Firth Local Development Plan 2 was submitted to the Scottish Ministers and the Report of Examination was published on 23 January 2024.

[20] The Highland Council (2015). Inner Moray Firth Development Plan July 2015. Available at: https://www.highland.gov.uk/downloads/file/15008/adopted_inner_moray_firth_local_development_plan

Moray Local Development Plan

5.3.7 The Moray Local Development Plan 2020[21] takes account of a range of national and local drivers, covering a broad spectrum of issues such as the need to meet housing requirements, creating employment opportunities and supporting economic development, protecting our environment, connecting our communities, providing good health and education facilities, generating electricity from renewable sources, addressing climate change, supporting health challenges by promoting physical activity and mental well-being and helping to reduce inequalities and improve life chances for everyone to enjoy a good quality of life.

5.3.8 Policy DP9 is the policy of most relevance to the Proposed Development given that it is specific to Renewable Energy. The policy states that the energy proposals will be considered favourably where they meet the following criteria:

i) They are compliant with policies to safeguard and enhance the built and natural environment;

ii) They do not result in the permanent loss or permanent damage of prime agricultural land;

iii) They avoid or address any unacceptable significant adverse impacts including:

- Landscape and visual impacts.
- Noise impacts.
- Air quality impacts.
- Electromagnetic disturbance.
- Impact on water environment.
- Impact on carbon rich soils and peat land hydrology.
- Impact on woodland and forestry interests.
- Traffic impact - mitigation during both construction and operation.
- Ecological Impact.
- Impact on tourism and recreational interest.

5.3.9 The Environment policies from Moray Local Development Plan are listed in **Table 5-2**.

Table 5-2: List of Environment Policies

Policy Reference	Name
EP1	Natural Heritage Designations
EP2	Biodiversity
EP3	Special Landscape Areas and Landscape Character
EP4	Countryside Around Towns
EP5	Open Space
EP6	Settlement Boundaries
EP7	Forestry, Woodlands and Trees
EP8	Historic Environment
EP9	Conservation Areas
EP10	Listed Buildings
EP11	Battlefields, Gardens and Designed Landscapes

[21] Moray Council (2020). Moray Local Development Plan 2020 Interactive web map. Available at: http://www.moray.gov.uk/moray_standard/page_133434.html.

Policy Reference	Name
EP12	Management and Enhancement of the Water Environment
EP14	Pollution, Contamination and Hazards
EP15	MOD Safeguarding
EP16	Geodiversity and Soil Resources
EP17	Coastal Change

Aberdeenshire Local Development Plan

5.3.10 The Aberdeenshire Local Development Plan 2023[22] interprets and implements the Aberdeen City and Shire Strategic Development Plan (SDP) 2020[23], providing specific information on how the principles established in the SDP will be applied at a local level. Since publication of the Local Development Plan, the SDP has been superseded by NPF4.

5.3.11 The Environment policies from Aberdeenshire Local Development Plan are listed in **Table 5-3**.

Table 5-3: List of Environment Policies

Policy Reference	Name
E1	Natural Heritage (Nature Conservation Sites, Protected Species, Wider Biodiversity and Geodiversity
E2	Landscape
E3	Forestry and Woodland
HE1	Protecting Listed Buildings, Scheduled Monuments and Archaeological Sites (including other historic buildings)
HE2	Protecting Historic, Cultural and Conservation Areas
HE3	Enabling development to safeguard Historic Buildings at Risk
PR1	Protecting Important Resources (Air Quality, Water Environment, Prime Agricultural Land, Open Space, Trees and Woodlands, Minerals, Peat and carbon rich soils)
PR2	Reserving and Protecting Important Development Sites
PR3	Reuse, Recycling and Waste
C2	Renewable Energy (Wind Energy, Solar Panels, Hydro–Electric Schemes, On-farm Biomass Facilities, Renewable Energy Technologies)

[22] Aberdeenshire Council (2023). Aberdeenshire Local Development Plan - January 2023 - Introduction and Policies. Available at: https://www.aberdeenshire.gov.uk/planning/plans-and-policies/ldp-2023/

[23] Aberdeenshire Council, Aberdeen City Council, Aberdeen City and Shire Strategic Development Planning Authority (2020). Aberdeen City and Shire Strategic Development Plan (SDP) 2020. Available at: https://www.aberdeencity.gov.uk/sites/default/files/2023-01/AberdeenCityShireSDPA2020.pdf

6. LANDSCAPE AND VISUAL AMENITY

6.1 Introduction

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

6.2 Baseline Conditions

6.2.1 The following sets out the baseline conditions for each section of the Proposed Development, describing the landscape designations, landscape character and key visual receptors present. Reference should also be made to **Figure 2** and **Figure 4**.

6.2.2 Consideration of the baseline conditions to inform this scoping process has been informed through desk-based research and by site visits carried out in February, April and August 2023.

Study Area

6.2.3 Perceptibility studies[24] have shown that steel lattice tower overhead lines can be noticeably visible from up to 10 km away. The starting point for the study area will therefore be the OHL alignment buffered by 10 km in all directions.

6.2.4 The study area will be based on the zone of theoretical visibility (ZTV) as well as site visits. As visual effects can, by definition, only occur where the Proposed Development may be visible, the study area for the visual assessment will be the area identified by the ZTV, which will extend to 10 km from each indicative tower position.

6.2.5 For the landscape assessment it is considered that the effects would be more local: that the introduction of a new overhead line is unlikely to alter the perception of a landscape beyond 5 km, except in the case of landscapes with a high degree of wild land characteristics. To ensure a focus on potentially significant effects, the landscape assessment will therefore consider the effects of the Proposed Development on the landscapes within 5 km of the Proposed Development, except where there are National Parks, National Scenic Areas or Wild Land Areas present or the landscape character assessment highlights wild land characteristics, in which case the landscape study area will extend to the full 10 km.

Landscape Context

6.2.6 The Proposed Development, running west to east from Beauly to Peterhead, passes through three local planning authority areas, Highland, Moray and Aberdeenshire, as illustrated in **Figure 1**.

6.2.7 Within Highland, the landscape of the Proposed Development is characterised by rolling, well wooded farmland either side of steep sided Glens associated with the River Ness valley with Loch Ness to the south. To the west of the farmed valley of the River Nairn, which traverses the Proposed Development north to south, are rolling uplands and forestry to the south of coastal farmlands. The area broadly between Nairn to the west and Elgin to the east, into Moray, is influenced by the rising landform of the Cairngorm Mountains foothills and is typically a larger scale landscape with widely spaced rounded hills and upland plateaus. Landform is predominantly extensive coniferous forestry and heather moorland while more intimate farmed landscapes are typically found on the margins and close to burns and roads.

6.2.8 To the east of Elgin is the broad farmed, settled and well wooded valley of the River Spey as it runs northeast from the Cairngorms National Park boundary to dissect the uplands and moorlands of southern Moray. Beyond the River Spey to the east, a large-scale landscape of upland farmland can be found within Moray, typified by broad shallow valleys, rectilinear fields in the central farmland interspersed by smaller fields and pasture. Views from higher ground can be attained to the Cairngorms and higher moorland edges to the south.

6.2.9 Continuing east into Aberdeenshire, the River Deveron is a distinctive feature with a diverse range of valleys contained by rolling hills, while the river is open with little marginal wetland vegetation. Quiet roads and paths give a

[24] Mark Turnbull Landscape Architects 2015. Perceptibility of Overhead Steel Lattice Transmission Towers, Collected Papers.

sense of seclusion and there is a sense of time depth through the presence of castles, mansions, and historic built features. Moving east from the River Deveron valley is a broader landscape that steadily becomes less dramatic away from the Cairngorms foothills. The landscape is predominantly farmed, less wooded, with large fields, and allows for wider, more extensive views through the landscape. The landscape is well settled with a number of small settlements and regularly dispersed farmsteads.

6.2.10 The landscape at the eastern end of the study area is characterised by an extensive coastal agricultural plain with exposed farmland influenced by the sea. Existing large scale industrial and commercial structures and electricity transmission infrastructure as well as busy arterial routes of the A90 and A953 are openly appreciated through the very gently undulating landscape. Farming is predominantly arable with large fields, dispersed farmsteads, and a number of settlements. OHLs and towers are highly visible in proximity to Peterhead Power Station.

6.2.11 The landscape and visual impact assessment (LVIA) will consider the effect on the landscape character types (LCTs) identified below (refer to **Table 6-2**) that are intersected by the Proposed Development. Those LCTs within 10 km will be refined for consideration and assessment down to those sensitive to the Proposed Development. Due to the scale of the landscape character types and the subtle differences within them, the assessment will also consider landscape character at a finer and more local grain, where appropriate, to be defined as part of the assessment.

Designated and Protected Landscapes – statutory

6.2.12 The following designations are national designations based on formal statutory procedures which give the areas special management or protection. The following are statutory landscape designations:

National Parks

6.2.13 The National Parks in Scotland are established under the provisions of the National Parks (Scotland) Act 2000[25]. The Act sets out four National Park aims, to:

- Conserve and enhance the natural and cultural heritage of the area;
- Promote sustainable use of the natural resources of the area;
- Promote understanding and enjoyment (including enjoyment in the form of recreation) of the special qualities of the area by the public; and
- Promote sustainable economic and social development of the areas' communities.

National Scenic Areas

6.2.14 National Scenic Areas (NSA) are defined as areas of outstanding scenic value in a national context.

Inventory of Gardens and Designed Landscapes

6.2.15 The Inventory of Gardens and Designed Landscapes (GDLs) is maintained by Historic Environment Scotland, and so are considered as cultural heritage assets and are appraised in the Cultural Heritage chapter. Where they are also popular visitor attractions, they are also considered as recreational receptors and the present-day visual effects are considered within the visual amenity section.

Designated and Protected Landscapes – non-statutory

6.2.16 The following designations are defined by local authorities who can also designate sites where certain policies apply, typically to help protect or manage local areas of special value. The following are non-statutory landscape designations:

Wild Land

6.2.17 Wild Land Areas (WLAs) are the most extensive areas of high wildness, defined and mapped by NatureScot. They are

[25] UK Government (2000). National Parks (Scotland) Act 2000. Available at: https://www.legislation.gov.uk/asp/2000/10/contents

identified as nationally important in Scottish planning policy but they are not a statutory designation.

Special Landscape Areas

6.2.18 Special Landscape Areas (SLAs) are regionally valuable landscapes identified by a local planning authority to protect and enhance landscape qualities and promote their enjoyment.

Designated and Protected Landscapes in the Study Area

6.2.19 The landscape designations listed below within **Table 6-1** are either crossed by the Proposed Development or are located within 5 km for SLAs or within 10 km for National Parks, NSAs or WLAs and will be considered within the LVIA.

Table 6-1 Designated or Otherwise Protected Landscapes

Designation Type	Name	Distance to nearest part of Proposed Route	Comments
Wild Land Area (WLA)	24. Central Highlands	Approximately 6.0 km to the west of the Proposed Route	The Central Highlands WLA lies 6 km to the west of the Proposed Development, which is likely to be barely perceptible from that distance with limited intervisibility. The Proposed Development is unlikely to have the potential to impact the key characteristics of the WLA, such as its strong sense of sanctuary and solitude, due to the limited and distant intervisibility between them.
National Park	Cairngorms Mountains	Approximately 7.5 km to the south of the Proposed Route	The Proposed Development may impinge on long-distance views from the National Park.
Special Landscape Area (SLA)	Loch Ness and Duntelchaig	Approximately 3.0 km to the south of the Proposed Route	The Proposed Development will cross the River Ness to the north of the SLA, potentially intruding on views from the north of the SLA.
Special Landscape Area (SLA)	Sutors of Cromarty, Rosemarkie and Fort George	Approximately 10.0 km to the north of the Proposed Route	Although the key characteristics of the SLA are largely coastal, the distant mountain backdrop in many views gives distinctive Highland context to the interplay of views back and forth across the Moray Firth. Views of the Proposed Development from the SLA will be predominantly screened from view by the increased distance in separation, and intervening areas of woodland which are features within the landscape.
Special Landscape Area (SLA)	Drynachan, Lochindorb and Dava Moors	Approximately 0.6 km to the south of the Proposed Route	The proximity of the Proposed Development may impinge on key views from this SLA, reducing the sense of remoteness and isolation which are key characteristics of the SLA.
Special Landscape Area (SLA)	Findhorn Valley and the Wooded Estates	Approximately 0.35 km to the north of the Proposed Route	The Proposed Development is situated in the uplands adjacent to the SLA, which may intrude on views from rare open areas within woodland and potentially affect the setting of the river, designed landscapes and valued buildings.
Special Landscape Area (SLA)	Pluscarden Valley	Approximately 2.0 km to the north of the Proposed Route	The key characteristic of the SLA is the strongly contained and diversely wooded setting the landscape provides to Pluscarden Abbey. The Proposed Development will not directly impact the SLA and is unlikely to impact upon the seclusion and tranquillity of the SLA due to the topography and woodland between the two. Given proximity, however, there may still be some visual intrusion.
Special Landscape Area (SLA)	The Spey Valley	Proposed route intersects this SLA for	Key characteristics of this area includes the broad and open floodplain of the Spey south of Fochabers. The Proposed Development will sever the SLA, adversely

Designation Type	Name	Distance to nearest part of Proposed Route	Comments
		approximately 5.0 km	affecting its characteristics, qualities and associated views.
Special Landscape Area (SLA)	Quarrelwood	Approximately 9.0 km to the north of the Proposed Route	The Proposed Development will not directly impact upon the mixed woodland or the prehistoric and cultural heritage characteristics of the area. It will also not impact upon woodlands to the north of the Proposed Development, that form the attractive approach to Elgin from the west.
Special Landscape Area (SLA)	Spynie	Approximately 7.0 km to the north of the Proposed Route	The SLA has been designated due to its variety of landscape features that represent both cultural heritage and nature conservation interest. Due to the increased distance in separation, it is considered unlikely that the Proposed Development will impact the SLA's sense of seclusion and tranquillity, or visual awareness due to being screened from view by intervening features.
Special Landscape Area (SLA)	Lossiemouth to Portgordon Coast	Approximately 6.5 km to the north of the Proposed Route	Coastal landscape characteristics are key to this SLA. Views of the Proposed Development from the SLA will be predominantly screened from view, by the increased distance in separation, and intervening topography and features within the landscape.
Special Landscape Area (SLA)	Lower Spey and Gordon Castle Policies	Approximately 1.3 km to the north of the Proposed Route	The SLA is representative of an enclosed landscape, sensitive to visual intrusion. Adverse effects are likely to arise where the Proposed Development directly crosses the River Spey, affecting views from within the SLA.
Special Landscape Area (SLA)	Portgordon to Cullen Coast	Approximately 8.0 km to the north of the Proposed Route	Views of the Proposed Development from the SLA are predominantly screened by the intervening topography and vegetation. Key characteristics are largely limited to coastal features, framed by the Bin of Cullen.
Special Landscape Area (SLA)	Deveron Valley (Moray Council)	Approximately 0.6 km to the north of the Proposed Route	The proximity of the Proposed Development could affect views from the SLA and the intimate scale and sense of seclusion currently associated with it.
Special Landscape Area (SLA)	Deveron Valley (Aberdeenshire Council)	Proposed route intersects this SLA for approximately 8.0 km	The Proposed Development could directly impact the key characteristics of the SLA. The Proposed Development could potentially have adverse impacts upon the nature of the key views across the river valley. It may also directly affect the integrity of natural and historic features within the SLA.
Special Landscape Area (SLA)	North East Aberdeenshire Coast	Approximately 5.0 km to the east of the Proposed Route	The SLA could be indirectly impacted by the Proposed Development, due to affecting the nature of the view, both to and from the SLA. The nature of the existing view is one of the defining qualities of the SLA, and thus is to be protected.

Landscape Character

6.2.20 The Proposed Development crosses a number of broad landscapes defined by Scottish Natural Heritage (SNH - now NatureScot) in their Landscapes of Scotland map[26] and broken down into landscape character types (LCTs)[27] . These

[26] Scottish Natural Heritage (2012). Landscapes of Scotland Map. Available at: https://www.nature.scot/landscapes-scotland-map
27 NatureScot. Landscape Character Assessment. Available at https://www.nature.scot/professional-advice/landscape/landscape-character-assessment.

LCTs are of the appropriate scale to the type of development proposed to be considered within the detailed landscape character assessment. LCTs are defined by NatureScot in the national map and database[28].

6.2.21 The LCTs listed with **Table 6-2** below are located within the study area between Beauly and Peterhead and intersect the Proposed Development. As a result, all LCTs within this table are considered to be potentially impacted by the Proposed Development, however distances have been based on the Proposed Route and further consideration will be given to inclusion once a Proposed Alignment has been confirmed.

Table 6-2 Landscape Character Types (LCT's) intersected by the Proposed Development

Name	Distance to nearest part of Proposed Route	Comments
LCT 229 – 'Enclosed Farmland'	LCT is intersected by the Proposed Route for 5.5 km	The Proposed Development may impact upon the amount of the proportion of woodland and tree cover which is a key characteristic of this LCT. This may also impact upon the sense of enclosure within the LCT, another key characteristic.
LCT 342 – 'Farmed River Plains'	LCT is intersected by the Proposed Route for 4.0 km	The Proposed Development may impact an expanse of river valley flood plain which is a key characteristic of this LCT.
LCT 222 – 'Rocky Moorland Plateau – Inverness'	LCT is intersected by the Proposed Route	The Proposed Development will likely impact upon the amount of conifer forest within the northeast of the LCT, where they are a dominant key characteristic.
LCT 228 – 'Rolling Farmland and Woodland'	LCT is intersected by the Proposed Route for 10.0 km to the east and 4.0 km further west.	The Proposed Development is likely to impact upon the large-scale open landscape characteristic which is key to this LCT.
LCT 225 – 'Broad Steep-Sided Glen'	LCT is intersected by the Proposed Route for 2.2 km	The Proposed Development will cross the River Ness and the Caledonian Canal, crossing the Great Glen within this LCT. The Proposed Development may interrupt the linear focus directed along the linear route, which is a key characteristic of this LCT. It is likely the Proposed Development will require the removal of areas woodland which is a key characteristic within this LCT.
LCT 223 – 'Flat Moorland Plateau with Woodland'	LCT is intersected by the Proposed Route for c7.0 km	The Proposed Development may impact upon areas of conifer forest and heather moorland within this LCT which are key characteristics.
LCT 227 – 'Farmed Strath – Inverness'	LCT is intersected by the Proposed Route for 4.3 km	The Proposed Development may impact upon the sense of linear enclosure, which directs distant views along the strath, which is a key characteristic of this LCT.
LCT 221 – 'Rolling Uplands – Inverness'	LCT is intersected by the Proposed Route for 2.3 km	The Proposed Development may require the removal of conifer forest to edge of the LCT which is a key characteristic.
LCT 291 – 'Open Rolling Upland'	LCT is intersected by the Proposed Route for 9 km to the east and for 11.5 km further west.	The Proposed Development would introduce detracting features into the LCT in the form of built structures, for which the current lack of is a key characteristic. The Proposed Development also crosses the Dava Way within this LCT, from where most people experience the area. The Proposed Development may also impact upon the sense of remoteness, which is also a key characteristic of this LCT.
LCT 285 – 'Roling Farmland and	LCT is intersected by the Proposed Route for 3.5 km to the east	The Proposed Development may impact upon key characteristics of this LCT, such as conifer forests and heather moorland. The Proposed Development may also impact upon areas of the LCT that possess a

[28] NatureScot. Scottish Landscape Character Types Map and Descriptions. Available at: https://www.nature.scot/professional-advice/landscape/landscape-character-assessment/scottish-landscape-character-types-map-and-descriptions

Name	Distance to nearest part of Proposed Route	Comments
Forests - Moray & Nairn'	and for 1.0 km further west.	strong wild character, due to their remoteness, rugged terrain, and perceived naturalness.
LCT 290 – 'Upland Moorland and Forestry'	LCT is intersected by the Proposed Route for 28.0 km to the east and for 8 km to the west.	The Proposed Development cuts through large sections of this LCT and may impact upon key characteristics, such as woodland plantations and farmland mosaic.
LCT 286 – 'Narrow Wooded Valley – Moray & Nairn'	LCT is intersected by the Proposed Route for 2.5 km	The Proposed Development intersects this LCT across the River Findhorn. Shelter and seclusion provided by intricate, enclosed landform, woodland cover and general lack of roads and river crossings are likely to be impacted as a result of the Proposed Development.
LCT 284 – 'Coastal Farmlands – Moray & Nairn'	LCT is intersected by the Proposed Route for 4.5 km	The Proposed Development may impinge on expansive open long range views, which are a key characteristic of this LCT.
LCT 287 – 'Broad Farmed Valley'	The north of the LCT is intersected by the Proposed Route for 1.0 km	The Proposed Development will only impact a small section of the LCT along its northern boundary. OHLs are already affiliated with the local area.
LCT 293 – 'Low Forested Hills'	LCT is intersected by the Proposed Route for 5.5 km	The Proposed Development may impact upon Wood of Ordiequish, which is an area of extensive woodland within the LCT and as a result a key characteristic.
LCT 288 – 'Upland Farmland'	LCT is intersected by the Proposed Route for 10.5 km	The Proposed Development may impact upon extensive views across open farmland within the LCT. It may also impact upon views towards the Hill of Mulderie, which is a local landmark.
LCT 27 – 'Farmed Moorland Edge – Aberdeenshire'	LCT is intersected by the Proposed Route for 11.0 km	The Proposed Development may impact upon key characteristics within this LCT in terms of woodland and farmland areas.
LCT 32 – 'Farmed and Wooded River Valleys'	LCT is intersected by the Proposed Route in two places. First for 2.5km in the east and then for 5.0 km in the west.	The Proposed Development may potentially impact the high degree of integrity that this landscape possesses. To the west the Proposed Developed intersects the strongly contained valley of the River Deveron, which is a key characteristic in this landscape.
LCT 19 – 'Farmed Rolling Ridges and Hills'	LCT is intersected by the Proposed Route for 17.0 km	The Proposed Development is likely to impinge on long range views and open character that are a key characteristic of the LCT. The Proposed Development may also impact upon areas of woodland that are also a key characteristic.
LCT 20 – 'Undulating Agricultural Heartland'	The Proposed Route lies within this LCT for approximately 17.5 km.	Its open and expansive character with long views of the surrounding landscape is a key characteristic to this LCT. The Proposed Development would be highly visible and likely to impinge on long views in places. The Proposed Development will also potentially impact upon the wider panoramic views from The Culsh monument which is a key landmark within this landscape.
LCT 21 – 'Farmland and Wooded Policies'	LCT is intersected by the Proposed Route for 9.5 km	The Proposed Development may impact upon areas of woodland and farmland which are key characteristics in this landscape. It would also introduce large built infrastructure within a landscape affected very little by this.
LCT 17 - Coastal Agricultural Plain – Aberdeenshire'	The Proposed Route lies within this LCT for approximately 6.0 km.	A key characteristic of this LCT is the extensive areas of low lying and often very open sweep of exposed farmland. The Proposed Development may potentially be highly visible within this landscape and adversely impact upon the strong sense of openness and space.

6.2.22 The LCTs listed within **Table 6-3** below are situated within the 10 km study area of the Proposed Development but not directly crossed by the Proposed Development. Comments within this table summarise whether the Proposed Development would potentially impact the LCT. These LCTs will be considered and refined further during the assessment to include only those with the potential for significant effects.

Table 6-3 Landscape Character Types (LCTs) that are within the Study Area but outside of the Proposed Development

Name	Distance to nearest part of Proposed Route	Comments
LCT 220 - Rugged Massif - Inverness	LCT lies 2.0 km west of the Proposed Route	Potential intervisibility between the Proposed Development and LCT may impact upon views from hill tops within the LCT across the wider landscape to the east.
LCT 331 - Rounded Rocky Hills	LCT lies 6.0 km northwest of the Proposed Route	Intervisibility between the Proposed Development and LCT is likely to be limited, due to the topography and areas of woodland between the two.
LCT 341 - Forest Edge Farming	LCT lies 3.0 km north of the Proposed Route	Intervisibility between the Proposed Development and LCT may be possible from the summit of Cnoc Udais, from which the Proposed Development may impact upon far reaching views.
LCT 345 - Farmed and Forested Slopes - Ross & Cromarty	LCT lies 1.0 km north of the Proposed Route	Intervisibility between the Proposed Development and LCT may impact upon views across the lowlands.
LCT 346 - Open Farmed Slopes	LCT lies 0.65 km north of the Proposed Route	Intervisibility between the Proposed Development and LCT may impact upon open, expansive, and outward looking views.
LCT 226 - Wooded Glen - Inverness	LCT lies 9.5 km west of the Proposed Route	Intervisibility between the Proposed Development and LCT is likely to be limited, due to the topography and areas of woodland between the two.
LCT 343 - Coastal Shelf	LCT lies 1.2 km north of the Proposed Route	The Proposed Development is unlikely to impact upon any of the key characteristics of this LCT, given the small size of the section of LCT in proximity to the Proposed Development and its separation form it by forested coastal slopes, hills, and woodland.
LCT 224 - Farmed and Wooded Foothills	LCT lies 2.0 km south of the Proposed Route	Intervisibility between the Proposed Development and LCT may impact upon panoramic views from summits within the LCT, such as Stac an Fhithich and Stac na.Cathaig.
LCT 294 - Upland Valleys - Moray & Nairn	LCT lies 5.5 km south of the Proposed Route	The Proposed Development is unlikely to impact upon any of the key characteristics of this LCT. The LCT has a more enclosed character, which is not defined by long-distance panoramic views. As such, the distance from the Proposed Development and the more enclosed nature of the LCT is unlikely to result in significant intervisibility.
LCT 132 - Undulating Wooded Farmland - Cairngorms	LCT lies 9.0 km south of the Proposed Route	The Proposed Development is unlikely to impact upon any of the key characteristics of this LCT due to distance, the small size of the LCT and its heavily wooded character.
LCT 125 - Rolling Uplands - Cairngorms	LCT lies 7.5 km south of the Proposed Route	The Proposed Development may be visible from the distinctive summits and impact on the sense of relative remoteness.

Name	Distance to nearest part of Proposed Route	Comments
LCT 292 - Open Upland	LCT lies 4.5 km south of the Proposed Route	LCT 292 has a sense of remoteness derived from the near and distant enclosure of hills and slopes, which visually and physically separate this area from almost all surrounding landscapes. As a result, potential intervisibility between the Proposed Development and this LCT is not anticipated to impact any of its key characteristics.
LCT 289 - Upland Farmed Valleys	LCT lies 2.5 km south of the Proposed Route	Intervisibility between the Proposed Development and LCT may impact upon views from the LCT to the hills in surrounding landscapes, and to the coastal farmlands.
LCT 283 - Coastal Forest	LCT lies 10.0 km north of the Proposed Route	The Proposed Development is unlikely to impact upon any of the key characteristics of this LCT due to distance and the heavily forested, enclosed nature of the LCT.
LCT 281 - Beaches, Dunes and Links - Moray & Nairn	LCT lies 6.5 km north of the Proposed Route	Intervisibility between the Proposed Development and LCT is likely to be limited, due to the topography and pockets of woodland between the two.
LCT 28 - Outlying Hills and Ridges	LCT lies 4.5 km south of the Proposed Route	Intervisibility between the Proposed Development and LCT may impact upon views across the surrounding lowlands of Aberdeenshire from the LCT.
LCT 18 - Low Hills and Basins	LCT lies 4.0 km north of the Proposed Route	Intervisibility between the Proposed Development and LCT is likely to be limited, due to the topography between the two and containment of the LCT to the south by higher hills.
LCT 14 - Gently Undulating Coastal Farmland	LCT lies 3.3 km north of the Proposed Route	Where discernible within view, from areas of higher ground, the Proposed Development is considered unlikely to impact significantly upon the character of the LCT, due to the increased separation, and more prominent features within the landscape discernible within views.
LCT 15 - Broad Ridges and Valleys	LCT lies 6.5 km north of the Proposed Route	Where discernible within views, from areas of higher ground, the Proposed Development is considered unlikely to impact significantly upon the character of the LCT, due to the increase in separation, and more prominent features within the landscape discernible within view.
LCT 25 - Farmed Strath – Aberdeenshire	LCT lies 1.8 km south of the Proposed Route	Potential intervisibility between the Proposed Development and the LCT will not directly impact its key characteristics. The Prop of Ythsie lies approximately 12.5 km south of the Proposed Development, with topography together with the distance likely to inhibit intervisibility significantly impacting on the LCTs key characteristics.
LCT 16 - Coastal Farmland with Ridges and Valleys	LCT lies 7.0 km north of the Proposed Route	Intervisibility between the Proposed Development and LCT is likely to be limited, due to the topography and pockets of woodland between the two.
LCT 12 - Beaches Dunes and Links – Aberdeenshire	LCT lies 4.0 km east of the Proposed Route	Potential intervisibility between the Proposed Development and the LCT could impact on the sense of naturalness and remoteness of the LCT, however due to the separation between the LCT and the Proposed Development, it is considered unlikely that the Proposed Development will significantly impact upon the areas sense of place, and characteristic features.
LCT 11 - Fragmented Rocky Coast	LCT lies 5.7 km east of the Proposed Route	Potential intervisibility between the Proposed Development and the LCT could impact on the sense of naturalness and sense of wild character of the LCT. However, due to the increased distance in separation between the LCT and the Proposed Development, it is considered unlikely that the Proposed Development will significantly impact upon the LCT's sense of place or key characteristic features.

Visual Amenity Receptors

6.2.23 Potential visual receptors are to be found throughout the study area although in some areas the presence of mature woodland vegetation and forestry plantation as well as undulating topography would help to limit views to the Proposed Development.

6.2.24 There are strong concentrations of population locations along the Proposed Development, including at Beauly, Inverness, Keith and Turriff. This is contrasted with smaller villages and hamlets and areas that are much more sparsely settled.

6.2.25 Potential visual receptors will include farms, farmsteads, and isolated rural properties, residents within and on the outskirts of larger settlements, towns, villages and hamlets, users of the local transport network and recreational users which are all found throughout the study area.

6.2.26 Potential visual receptors to be considered in the LVIA include, but are not limited to:

Residential

- residents within or on the edge of the settlements of Beauly, Kiltarlity, Kirkhill, Inverness, Nairn, Forres, Rothes, Elgin, Lhanbryde, Mosstodloch, Fochabers, Keith, Huntly, Aberchirder, Turriff, New Deer, Maud, Mintlaw, and Peterhead;
- residents of properties in smaller settlements, villages and hamlets of Easter Moniack, Reelig, Inchmore, Inchberry, Lentran, Newtonhill, Ferness, Daviot, Newlands of Culloden, New Mill, Dallas, Fogwatt, Cairnie, Ruthven, Milltown of Rothiemay, Forgue, Cuminestown, New Byth, Auchnagatt, Stuartfield, Old Deer, Hatton, Aultmore and Longside; and
- isolated / more remote residential properties and farmsteads throughout.

Recreational and Tourist

- recreational users of the Great Glen Way, which runs north to south from Inverness west to Drumnadrochit, crossing the Proposed Development;
- recreational users of Dava Way Great Trail, which runs north to south from Forres to Grantown-on-Spey crossing the Proposed Development;
- recreational users of the Speyside Way Great Trail, which runs north to south from Buckie on the coast, through the Proposed Development south of Fochabers, where the Great Trail continues to Cragganmore. Here it splits in two, continuing South to either Newtonmore in the west, or Tomintoul in the east;
- recreational users of the Moray Coast Trail, which lies 6.5 km north of the Proposed Development, and runs from Cullen in the east to Forres in the west;
- recreational users of the Formartine & Buchan Way (Great Trail) which runs north of the Proposed Development from Maud to Peterhead and to the south through the study area from Maud to Ellon;
- recreational users of the National Cycle Network (NCN) including Routes: 78 from Campbeltown to Inverness, 1 from Dover to the north of Scotland and 7 from Sunderland and Inverness (part of the Coast to Coast route (C2C);
- recreational users of the Cairngorms National Park;
- recreational users of the Highland Tourist Route;
- recreational users of Culloden Battlefield and Visitor Centre;
- recreational users of the Malt Whiskey Trail;
- recreational users of the Forestry and Land Scotland open access land in the area surrounding the Proposed Development (distances vary);
- recreational users of the many lakes, lochs and waterways, including, but not limited to, the River Deveron, River Isla, River Spey, Loch Dallas, River Findhorn, Loch Ashie, and Caledonian Canal;
- local paths, including core paths, hill access paths / known hillwalking areas within the study area; and

- GDLs where they are tourist attractions.

Transport

- users of the local and trunk road network; and
- users of the local and main railway network.

6.3 Potential Effects

Landscape Effects

6.3.1 The Proposed Development would introduce a highly noticeable and intrusive man-made element into the landscape. Where the Proposed Development passes through forestry, a new Operational Corridor swathe would be created, which may affect the pattern of the landscape; alternatively, the forestry block may be clear-felled and replanted to accommodate the proposed OHL and Operational Corridor.

6.3.2 The effect of any development on the landscape depends on the scale at which the landscape character is considered. The Proposed Development is likely to result in significant effects on the character of the landscape when considered at the scale of the NatureScot LCT level. The impact of the Proposed Development on the perception of the landscape is likely to reduce with distance. The key characteristics of the wild, high, open and remote landscapes within the study area would be more widely affected than those lower lying landscapes with extensive commercial forestry, as the Proposed Development would be more clearly perceived. The scale of the Proposed Development is highly likely to give rise to significant, long term, permanent effects on the LCTs directly intersected by the Proposed Development, while those with inter-visibility beyond 5 km also have the potential for significant effects.

6.3.3 The large scale and robust nature of the towers for the Proposed Development would intensify the degree of intrusion of an industrial nature into the designated landscapes – primarily SLAs. This has the potential to give rise to significant, long term, permanent effects on these designated landscapes.

6.3.4 Construction activities would also have the potential to be intrusive in the landscape both locally and more widely, giving rise to temporary significant landscape effects.

6.3.5 The Proposed Development, during its construction and subsequent operation, is expected to potentially affect the landscape in the following ways:

- Temporary impacts as a result of the movement of materials and vehicles (including helicopters), uncharacteristic activity, plant and heavy vehicles to erect towers, laydown areas, access tracks; any undergrounding works; erection of terminal end compounds; movement of work crews and similar during enabling and construction works.
- Permanent impacts from construction including linear feature / linear wayleave / permanent access tracks retained through woodland resulting in permanent alteration and loss of existing land cover.
- The exposure of towers and OHL through the landscape where there is an absence of an existing OHL.
- The introduction of an industrial element into the landscape, modifying the way in which the existing rural landscape is perceived, and adding a new linear feature into the landscape, with potential severance of wide open expansive areas.

Visual Amenity Effects

6.3.6 The Proposed Development crosses a varied landscape allowing different visual experiences. Where the line crosses high ground, open and exposed areas allow for long views which can result in towers becoming skylined, whilst across the valleys, views of the line may be more constrained or focussed, or backdropped by rising ground beyond. There is the potential for visual effects up to 10 km from the Proposed Development, although significant effects are more likely within four or five kilometres.

6.3.7 The Proposed Development passes close to many residential receptors as well as many tourist and recreational receptors using the trails, waterways, tourist routes, or core paths, or visiting key tourist attractions with the potential for significant effects.

6.3.8 There is similarly potential for significant effects on users of the transport network.

6.3.9 In all cases the potential for adverse effects arises primarily from the presence of new, large, steel lattice towers, which may form an intrusive element in views where a tower was not previously visible. The potential also exists for visual effects arising where trees or forestry are removed to accommodate the new line, which may open up views or alter local visual amenity. This includes removal of trees to allow for construction activities, including pulling points and access tracks.

6.3.10 The Proposed Development, during its construction and subsequent operation is expected to potentially affect visual amenity in the following ways:

- temporary impacts as a result of the movement of materials and vehicles (including helicopters), uncharacteristic activity, plant and heavy vehicles to erect towers, laydown areas, access tracks; any undergrounding works; erection of terminal end compounds; movement of work crews and similar during enabling and construction works;
- Permanent impacts from construction including linear feature / linear wayleave / permanent access tracks retained through woodland resulting in permanent alteration of views;
- the exposure of steel-lattice towers and OHL through the landscape, particularly where there is an absence of an existing OHL;
- the introduction of a highly discordant element of an industrial nature into views, in both close proximity, and across longer distance views with the potential to permanently disrupt open expansive views as well as within short-distance immediate views; and
- the presence of robust, industrial, steel lattice towers, including angle towers, terminal towers, sealing end compounds into long-distance and short-distance views, permanently disrupting the existing visual amenity.

6.3.11 The construction and operation of the Proposed Development is expected to impact on the range of visual receptors identified above, potentially giving rise to a significant effect.

6.4 Mitigation

6.4.1 Potential landscape and visual amenity impacts formed a key input into the routeing and alignment selection process. Recognising the scale of development proposed within sensitive landscapes and the potential impact on the visual amenity of sensitive visual receptors, these formed an important element in the decision-making process to develop embedded mitigation and a route selection that minimised potential landscape and visual effects.

6.4.2 Through the detailed assessment, the LVIA will seek to inform any further refinements to the alignment and micro siting of the Proposed Development and consider how and where landscape mitigation measures may be developed to further reduce potential landscape and visual effects.

6.4.3 Restoration planting plans are not anticipated to be undertaken as part of the LVIA. Vegetation clearance will be kept only to that essential for the placement of the towers and OHL, which require a standard permanent clearance offset to be maintained depending on the size and voltage of the tower (refer to Electricity Safety, Quality and Continuity Regulations (ESQCR) 2002 regulations[29] and The Electricity Act 1989). The implementation of a landscape restoration plan has therefore been scoped out.

6.4.4 The routeing and alignment selection process included consideration of Rules 1 to 7 of the Holford Rules.[30]

[29] UK Government (2002). The Electricity Safety, Quality and Continuity Regulations (2002). Available at: https://www.legislation.gov.uk/uksi/2002/2665/contents/made

[30] Scottish & Southern Electricity Networks. The Scottish Hydro-Electric Transmission Limited (SHETL) (2004), The Holford Rules: Guidelines For The Routeing Of New High Voltage Overhead Transmission Lines With NGC 1992 And SHETL 2003 Notes.

6.5 Proposed Scope and Assessment Methodology

Scope

6.5.1 The LVIA will consider effects on landscape and visual receptors within the study area during construction and operation.

6.5.2 The general scope for the LVIA, which will be applicable to all sections of the Proposed Development, would include:

- An LVIA carried out in accordance with the 3rd Edition of the Guidelines for Landscape and Visual Impact Assessment (2013) (GLVIA3)[31];
- The landscape assessment will describe the key components, features and characteristics of any designated landscape, including national designations (National Parks, Wild Land Areas, National Scenic Areas) and Regional Designations (Special Landscape Areas) within the study area with the potential for significant effects. The assessment will consider the extent to which any of the designated areas' key characteristics or special qualities are lost as a result of the Proposed Development;
- The landscape assessment will describe the key components, features and characteristics that make up the various LCTs with the potential for significant effects found within the study area. It would consider the extent to which the loss of features and the introduction of the Proposed Development would impact the character of the LCTs; and
- The visual assessment will consider views obtained by those living, working, travelling and undertaking recreation within the study area including views from settlements; the transport network; recreational routes, spaces and trails; and visitor attractions.

Methodology

6.5.3 The LVIA will be undertaken in accordance with best practice guidance, in particular the Landscape Institute and IEMA Guidelines for Landscape and Visual Impact Assessment 3rd Edition, and Landscape Institute guidance on assessing landscape value[32].

6.5.4 The LVIA will include:

- Assessment of the impact of the Proposed Development on the landscape character and value of the area. The statement will include a description of the methodology used to assess character and the criteria to determine value;
- Assessment of the visual impact of the Proposed Development on visual receptors and locations to which the public have access; and
- The assessment will be accompanied by appropriate graphics, including computer modelling of a Zone of Theoretical visibility (ZTV). Effects on sensitive receptors will also be illustrated by representative viewpoints within the ZTV. Identification of the representative viewpoints will be developed through the EIA LVIA process in consultation with the determining authorities.

6.5.5 The following references would be used to inform the LVIA:

- NatureScot Landscape Character Assessment in Scotland, 2019[33];
- NatureScot Local Landscape Areas, 2017[34][35];

31 Landscape Institute and IEMA (Third edition, 2013). Guidelines for Landscape and Visual Impact Assessment. Available at: https://www.landscapeinstitute.org/technical/glvia3-panel/

32 Landscape Institute (2021). Technical Guidance Note TGN 02-21 Assessing landscape value outside national designations. Available at: https://www.landscapeinstitute.org/publication/tgn-02-21-assessing-landscape-value-outside-national-designations/

33 NatureScot (2019). Landscape Character Assessment in Scotland. Available at: https://www.nature.scot/professional-advice/landscape/landscape-character-assessment/landscape-character-assessment-scotland

34 Naturescot (2017) Local Landscape Areas. Available at: https://www.nature.scot/professional-advice/protected-areas-and-species/protected-areas/local-designations/local-landscape-areas

35 Also known as Special Landscape Areas (SLA) by The Highland Council, Moray Council and Aberdeenshire Council.

- Highland Council's Assessment of Highland Special Landscape Areas[36];
- Moray Local Landscape Designation[37];
- NatureScot Landscape Character Assessment: Aberdeenshire - Landscape Evolution and Influences[38]; and
- Aberdeenshire Special Landscape Areas, 2017[39].

6.5.6 It is anticipated that significant effects are unlikely beyond 10 km from the OHL on the landscape or on visual amenity, although it is anticipated that effects on Landscape (including regionally designated landscapes) may be refined down to 5 km. An initial study area limit of 10 km from the OHL for landscape and visual effects is therefore proposed, to be tested in the early stages of the assessment and refined if appropriate to ensure a focus on potentially significant effects.

6.5.7 The initial study area for the visual assessment will be the area covered by the ZTV, cut off at 10 km, which will also inform the landscape study area.

6.5.8 The initial stage of the process is the identification of the existing landscape and visual conditions of the study area (the baseline conditions). This will be informed by desktop research and field surveys. The field work will consider both potential impacts on landscape character and potential impacts on the visual amenity of receptors within the study area, the latter considering both static locations and the view from routes when travelling. Visits will also be made to the agreed representative viewpoint locations.

6.5.9 The landscape character baseline will be informed by the NatureScot National Landscape Character Assessment.

6.5.10 The LCTs may cover a wide area, and where this is the case a finer scale of local landscape character assessment of the study area may be completed. The key features of the existing landscape character will be identified to establish the immediate and wider context of the development. A level of sensitivity to the type of development proposed within each LCT and the local landscape character assessment will be derived.

6.5.11 Baseline reporting in the LVIA chapter will include the identification of relevant landscape planning policy at a national and regional level. Reference will be made to the following documentation:

- National Planning Framework 4 2023;
- Highland-wide Local Development Plan 2012;
- Moray Local Development Plan 2020 and
- Aberdeenshire Local Development Plan 2023.

6.5.12 The assessment of effects on Landscape Character and Visual Amenity during the construction phase and operational phases will then be undertaken. In accordance with GLVIA3 the level of effect and whether it is significant or not will be assessed based on the sensitivity of the affected receptor and the magnitude of change. The sensitivity and magnitude are then considered together to determine the level of effect and whether or not it is significant. Note that effects can be either beneficial or adverse and, in some cases, neutral (neither beneficial nor adverse).

6.5.13 In all cases the criteria are used as guidelines, not hard and fast rules. The gradations in significance levels are shown as discrete steps but in reality, represent a continuum, and conclusions about the sensitivity of receptors, the magnitude of impacts and the significance of effects are always based on professional judgement.

36 The Highland Council (June 2011). Assessment of Highland Special Landscape Areas. Available at: https://www.highland.gov.uk/download/downloads/id/2937/assessment_of_highland_special_landscape_areas.pdf
37 Moray Council (2018) Moray Local Landscape Designation. Available at: http://www.moray.gov.uk/moray_standard/page_121575.html
38 NatureScot (2019). Landscape Character Assessment: Aberdeenshire - Landscape Evolution and Influences. Aavailable at: https://www.nature.scot/doc/landscape-character-assessment-aberdeenshire-landscape-evolution-and-influences.
39 Aberdeenshire Council (2017). Aberdeenshire Special Landscape Areas. Available at: https://www.aberdeenshire.gov.uk/media/20071/9-special-landscape-areas-part-1.pdf

Visualisation Methodology

6.5.14 The visual assessment will be illustrated with photographs from a selection of key and representative viewpoints, to be agreed with the relevant local planning authorities and with NatureScot through the EIA LVIA process. Based on experience of similar schemes, it is anticipated that up to fifty viewpoint locations may be required, with visualisations prepared for each. The number and location of representative viewpoints will be selected based on review of the ZTV, OS mapping, field surveys and desk-based review to draw up a proposed set of representative viewpoint locations. These will then be discussed with the local planning authorities to agree a definitive list of viewpoints to illustrate the visual assessment.

6.5.15 It is proposed that visualisations will consist of A1 single frame views with two sheets per viewpoint. The first will show the current view, and the second will show the proposed view at Year 1 using the 3D model of the Proposed Development. It is assumed that photography will be completed in the winter months of 2023/2024.

6.5.16 The assessment will consider the effects on visual amenity across the whole of the area affected within narrative text, accompanied by representative viewpoint photography. The viewpoints to be included will provide a balance of views from different directions and different distances from a range of receptors as well as to pick out key viewpoints. Receptors will be grouped where appropriate, with a focus on receptors likely to experience significant effects.

Cumulative Assessment

6.5.17 The assessment of cumulative effects with nearby development projects will also be completed.

6.5.18 The cumulative visual assessment will consider schemes within the 10 km study radius that would have a significant cumulative effect when combined with the Proposed Development. Given the more local nature of the potential landscape character effects, the cumulative landscape assessment will consider any such schemes within a 5 km radius of the Proposed Development.

6.6 Issues Scoped Out

Visual

6.6.1 Night time working is not anticipated and there is no permanent lighting associated with the towers. There are therefore no anticipated impacts from light pollution as a result of the Proposed Development and a night-time visual assessment will therefore not be considered.

6.6.2 Residential Visual Amenity Assessment (RVAA) determines whether the impact of a development is of such a nature and / or magnitude that it potentially affects 'living conditions' or Residential Amenity. RVAA does not consider other components of Residential Amenity such as noise or air quality and therefore is of value only where residential properties in close proximity to the Proposed Development may be significantly impacted in relation to visual Residential Amenity. Effects on residential receptors are anticipated to be captured sufficiently and holistically within the LVIA to identify significant adverse effects (taking in to account perceptual qualities as well as visual changes on receptors) and therefore a separate RVAA is scoped out of this assessment.

Landscape

6.6.3 Significant effects on the key characteristics of LCTs beyond the 10 km study area are not anticipated, as at this distance the perceptibility of changes would be small. Effects on LCTs beyond 10 km will therefore not be considered.

6.6.4 Significant effects or impacts on specific qualities of the Central Highlands WLA, 6 km to the west, are not anticipated due to the distance of views and intervening topography and woodland. Any key views from higher ground or viewpoints within the WLA towards the Proposed Development are distant and likely to be intermittent through the intervening topography and woodland and will be backdropped by the locally well wooded landscape. Therefore, whilst the WLA will be considered within the landscape assessment, a separate WLA impact assessment (in

accordance with Nature Scot's 'Assessing impacts on Wild Land Areas - technical guidance'[40]) is not considered necessary and has been scoped out.

6.6.5 Night time working is not anticipated and there is no permanent lighting associated with the towers. There are therefore no anticipated impacts from light pollution as a result of the Proposed Development and a night-time landscape assessment will not be considered.

6.6.6 Landscape restoration plans have been scoped out.

[40] Assessing impacts on Wild Land Areas - technical guidance, Nature Scot, September 2020 [online], available at: https://www.nature.scot/doc/assessing-impacts-wild-land-areas-technical-guidance#F2

7. ECOLOGY AND NATURE CONSERVATION

7.1 Introduction

7.1.1 This Chapter of the Scoping Report provides a brief overview of the currently known terrestrial and freshwater ecological baseline conditions, the potential effects associated with construction and operation of the Proposed Development, and the proposed scope and assessment methodology to be considered in the EIA Report.

7.2 Baseline Conditions

7.2.1 The Proposed Development has undergone a series of desktop assessments during route selection stages and these same studies are being updated to inform selection of a Proposed Alignment that will be taken forward to design and EIA. The assessments have covered designated sites, habitats and the suitability of the route options to support protected species. Route (and later alignment) selection has also been informed by a series of 'spot check' surveys using UK Habitats (UKHab) survey and protected species suitability assessments, covering over 20 locations or up to 20 % of the route options. This combination of desktop analysis and field spot checks has been used to inform the Proposed Route, together with feedback from the consultation process for the corridor and route selection stages.

7.2.2 The area within which the Proposed Development will be routed passes through a mixture of upland agricultural terrain, lowland and near-coastal agriculture, commercial forestry and upland moorland habitat. Further detail on the currently known baseline is presented below. This information is a high-level summary of information available in the more detailed route selection studies that have already been consulted upon and gives an indication of areas of study for the EIA to come.

Designated sites

7.2.3 This section discusses relevant sites designated for biodiversity and nature conservation, including:

- Special Areas of Conservation (SAC);
- Special Protection Areas (SPA);
- Ramsar Sites;
- Sites of Special Scientific Interest (SSSI);
- National Nature Reserves (NNR);
- Local Nature Reserves (LNR); and
- Local Nature Conservation Sites.

7.2.4 Details of ornithological features associated with these designations are discussed in Section 8.2.

7.2.5 The Proposed Route for the Proposed Development does not enter any statutory designated sites except for some rivers where it oversails these, see **Figure 2** and **Figure 3**.

7.2.6 The Proposed Route's proximity to and potential for impact on designated sites has been assessed in the corridor and route selection studies and is complemented by (for European and Ramsar sites) a Habitats Regulations Appraisal (HRA). The corridor and route selection studies have sought to identify the routes that avoid designated sites, including functional linkages to these sites such as hydrological connections or connectivity to sites designated for bird species that can use habitats outside the designated areas. Note that more general information on ornithology is discussed in Chapter 8, with cross reference to the designated sites discussed in this section where relevant.

7.2.7 The Proposed Route is within 0.5 km of Moniack Gorge SAC which is designated for green shield-moss, and spans the River Findhorn upstream of the Lower Findhorn Woods SAC (designated for mixed woodland). Further east, the Proposed Route crosses the River Spey SAC/SSSI (designated for Atlantic salmon, freshwater pearl mussel, sea lamprey and otter) and passes within 0.5 km of Mortlach Moss SAC (designated for base-rich fens).

7.2.8 There are no Local Nature Reserves or National Nature Reverses, and Local Nature Conservation Sites (non-statutory) are avoided. The Proposed Development crosses a number of Buglife B-Lines.

7.2.9 The Proposed Route from west to east, passes through a range of habitat types from ancient woodland, blanket bog, heath and wooded river valleys as far as Speyside, then primarily agricultural land east of the Spey Valley towards Peterhead. Walkover surveys at spot-check locations chosen to help inform the route and alignment selection stages of the Proposed Development, together with desktop examination of online mapping sources and aerial imagery, noted the habitats and suitability for protected species as discussed below.

Habitats

7.2.10 A multi-criteria analysis (MCA) of online habitat maps was carried out to assign habitat types at a broad scale across the length of the Proposed Route. The outputs from the MCA were reviewed by a suitably qualified ecologist and UK Habitat Survey (UKHab) categories confirmed. Data sources are the same as those described in more detail under Section 7.5 below, where the MCA process will be repeated once a Proposed Alignment is chosen and taken forward for design and EIA.

7.2.11 Major rivers crossed are the River Ness, River Nairn, River Findhorn and River Spey.

7.2.12 From Beauly to the Caledonian Canal, woodlands, including ancient woodland of semi-natural origin (category 1a and 2a on the Ancient Woodland Inventory (AWI)) and Annex I (as listed on the EC Habitats Directive) woodlands, are present (old sessile oak woods, Caledonian forests and alluvial forests). These woodlands occur in a mosaic of habitats including arable and horticultural land as well as other neutral grassland, dense scrub, fen, marsh and swamp, upland oakwood, wet woodlands, upland birchwoods, other broadleaved woodland and other coniferous woodlands, built up areas and gardens. The area does not include any Class 1 or Class 2 peatland (as defined on the Carbon Peatland Map of Scotland (CPM)). Croiche Wood, adjacent to the River Beauly, is classified as irreplaceable category 2a ancient woodland of semi-natural origin and is unavoidable.

7.2.13 From the Caledonian Canal to Blackhillock, the range of habitats includes those found in the land between Beauly and the canal, but in addition there are areas of blanket bog around Drumossie Muir, Riereach Burn, and in land in the upper parts of the River Findhorn; as well as Annex I *Tilio-Acerion* forests. Other habitats include upland acid grassland, upland heathland, gorse scrub, standing open water and canals, and other coniferous woodland. The section along the River Nairn includes upland acid grassland, bracken, modified grassland, upland heathland, gorse scrub, standing open water including ponds and lochans, rivers including the River Nairn, the River Lossie, the River Findhorn and the River Spey, wet woodland, broadleaved woodland, other coniferous woodland and built linear features. Of these, the blanket bog and upland heathland have the potential to be Annex I habitat. Some of the ancient woodland around the River Nairn and Dulnain Lodge is classified as irreplaceable category 1a ancient woodland of semi-natural origin.

7.2.14 Wet heath and species-rich grassland are found eastwards, with Annex I species-rich *Nardus* grassland habitats present, including an area immediately west of the River Spey where the Proposed Development would cross.

7.2.15 Habitats east of the Spey are increasingly dominated by agriculture, although habitats of interest include Annex I grassland species rich *Nardus* and irreplaceable category 2a ancient woodland occurring immediately around Blackhillock to the southeast of Keith. There are pockets of this grassland, as well as Caledonian forest and old sessile oakwoods. There is irreplaceable category 2a ancient woodland and Class 1 peatland between Blackhillock and New Deer. East of New Deer, one small pocket of Class 1 peatland is found along the Proposed Route, with the only habitat identified of potential conservation interest being an area of LEPO (Long-established of plantation origin) woodland south of Stuartfield.

Protected Species

7.2.16 Species considered in the route selection and alignment selection studies so far have included the following European Protected Species (EPS), protected under the Conservation (Natural Habitats &c.) Regulations 1994 (as

amended) [41], those identified as priority species on the Scottish Biodiversity List (SBL)[42] and/or protected under national legislation such as the Wildlife and Countryside Act 1981[43] as amended (WCA) or Protection of Badger Act 1992 (PBA)[44]:

- badger;
- bats;
- red squirrel;
- pine marten;
- wildcat;
- otter;
- water vole;
- amphibians (great crested newt (GCN) and toads);
- reptiles;
- migratory salmonids;
- freshwater pearl mussel (FWPM);
- lampreys; and
- invertebrates.

Mammals

7.2.17 The Beauly to Caledonian Canal region of the Proposed Development has the potential to support badgers, bats, red squirrel and pine marten, with desktop data review and spot-check surveys carried out at alignment selection stages indicating that the area has habitats that are highly suitable for these species/species groups. Suitability for these species groups becomes less as the Proposed Development moves eastwards, but with areas of high suitability for wildcat, pine marten and red squirrel still occurring in more eastern areas of woodland. There are multiple badger setts in woodland around the Beauly and Groam of Annat areas. The River Beauly supports otter and there is a mix of broadleaf woodland that can support bats. Smaller watercourses in each section may also have the potential to support water vole, but would require dedicated surveys to confirm.

7.2.18 East of the Caledonian Canal to Blackhillock, the River Nairn, Allt Dearg Burn, Rierach Burn, Muckle Burn, River Findhorn, Logie Burn, Red Burn, Commissary Burn and River Spey can all support otter (with the Spey being designated in part for otter), and the more lowland areas to the west of the Proposed Route have mosaics of broadleaved woodland and coniferous woodland (induing plantations) that can respectively support bats and/or pine marten and red squirrel.

7.2.19 East of the Spey, there are areas of broadleaved woodland mainly within riparian areas along watercourses that can support bats. Badger setts were observed northeast of Keith and in Dunnyduff Wood. There is a large undisturbed area of woodland immediately east of the Spey that has high suitability for wildcat and the Strathbogie Wildcat Priority Area is south of Keith. Wood of Ordequish sits within the Wood of Ordiequish, Whiteash and Ben Aigan Red Squirrel Stronghold; the same woodland is highly suitable for pine marten.

7.2.20 Between Blackhillock and New Deer, woodland east of Chapelhill has the potential to support bats, badger, wildcat, and red squirrel. Pine marten could be supported by the woodland at Newmill of Pitfancy, and Burn of Drumblade in this same woodland can support otter.

[41] UK Government (1994)/ Conservation (Natural Habitats &c.) Regulations 1994 (as amended). Available at https://www.legislation.gov.uk/uksi/1994/2716/contents/made

[42] NatureScot. Scottish Biodiversity List. Available at https://www.nature.scot/scotlands-biodiversity/scottish-biodiversity-strategy-and-cop15/scottish-biodiversity-list

[43] UK Government (1981). Wildlife and Countryside Act 1981 (as amended). Available at: https://www.legislation.gov.uk/ukpga/1981/69 Note that species listed as protected on Schedule 5 of this Act are different in Scotland to those listed on Schedule 5 for England and Wales

[44] UK Government (1992). Protection of Badger Act 1992. Available at: https://www.legislation.gov.uk/ukpga/1992/51/contents

7.2.21 Beavers have recently been released in the upper Spey catchment and there is the potential for them to disperse towards the Proposed Development, where they are not currently present.

Amphibians and Reptiles

7.2.22 Near Balvonie of Leys there is a network of waterbodies with potential to support great crested newts (GCN). There is suitable network habitat for GCN either side of the River Lossie, although dispersal of the species across the area would be dependent upon the width and flow rate of the river. There is a small network of waterbodies suitable for GCN in the woodland east of Chapelhill. Pockets of gorse scrub; hedge lines; woodlands; and overgrown field margins where they exist throughout the length of the Proposed Route, also have potential to support reptiles.

Freshwater Pearl Mussel and Fish

7.2.23 The River Beauly is within the range for freshwater pearl mussel (FWPM) as is the River Ness. The River Nairn, Alt Dearg Burn, Rierach Burn, Muckle Burn, are all within the range for FWPM and are potentially suitable for migratory salmonids, whilst there is an impassable natural waterfall on the River Lossie (north side of Glen Lossie); there are also barriers for migratory salmonids at Cold Burn, Burn of Yellowbog and Glenlatterach Reservoir. The River Spey is highly suitable for migratory salmonids and lampreys, together with FWPM. It is designated for all three faunal groups along with otters.

7.3 Potential Effects

7.3.1 At this stage in the Proposed Development's life cycle, potential effects cannot be fully defined. However, it is anticipated, given the nature of the development and the data gathered on ecology and nature conservation during earlier corridor, routeing and alignment selection study stages, that the following effects would be likely to arise:

- Temporary and permanent habitat loss during construction and operation including native woodland, peatland, heath and lowland grassland habitats.
- Habitat fragmentation along wayleaves, during operation.
- Temporary disturbance to protected species due to construction noise, lighting and human activity.
- Risk of injury and/or mortality of protected species during construction, due to collision with vehicles, accidental pollution of watercourses (for aquatic species), entrapment in excavations (for underground cable elements).

7.4 Mitigation

7.4.1 The routeing and alignment selection process for the Proposed Development has enabled consideration of potentially significant impacts and their effects on habitats and species, and for such effects to be minimised where practicable through this process. This will continue through the EIA process; whereby further survey data will help inform the siting of infrastructure and construction access to further minimise effects on habitats and species where practicable.

7.4.2 In addition, the Applicant has established best practice construction techniques and procedures that have been agreed with statutory consultees, including Scottish Environmental Protection Agency (SEPA) and NatureScot. These are set out within the Applicant's GEMPs and SPPs. The Proposed Development will be constructed in accordance with these plans.

7.4.3 A contractual management requirement of the successful Principal Contractor would be the development and implementation of a comprehensive and site-specific, robust CEMP. This document will detail how the successful Principal Contractor would manage the works in accordance with all commitments and mitigation detailed in the EIA Report, the Applicant's GEMPs, SPPs, statutory consents and authorisations, and industry best practise and guidance, including pollution prevention guidance.

7.5 Proposed Scope and Assessment Methodology

7.5.1 A significant amount of desktop study has already been carried out for the earlier optioneering stages of the Proposed Development. Information gathered during the optioneering stages on international sites, nationally

designated sites and Local Nature Conservation Sites will be reviewed for international sites up to 20 km from the Proposed Development for SPAs designated for certain goose and raptor species; up to 10 km from the Proposed Development for other international sites (on occasion further when hydrological connections or similar exist), and up to 1 km from the Proposed Development for national and local sites. These search parameters are typical for ecological desk studies and have been extended to 20 km where NatureScot guidance advises[45]. The review will include readily available data sources such as NatureScot Site Link, the Ancient Woodland Inventory, the NatureScot Carbon and Peatland Map 2016 and National Biodiversity Network (NBN) Gateway. Relevant Local Biodiversity Action Plans and targets set out in the Scottish Biodiversity Strategy will also be reviewed.

7.5.2 The general focus of study at each optioneering stage has been to avoid crossing directly into designated sites when selecting proposed corridors and routes; the same process has been applied to avoiding habitats of higher conservation value (Annex I) habitats, or irreplaceable habitats such as ancient woodland of semi-natural origin or habitats on Class 1 and 2 peatland. Similarly, the optioneering process has aimed to inform the choice of a Proposed Route that avoids the areas of highest suitability for protected species.

7.5.3 Given the scale of the Proposed Development, desktop mapping of habitats has been carried out for all alignment options using a multi-criteria analysis (MCA) process. This method comprises collation and categorisation of online data sources to assign habitat types to the various land types along the OHL alignment. The Proposed Alignment to be assessed at EIA stage will therefore have had habitat types assigned to it using the MCA process.

7.5.4 The MCA process allows for efficient ground truthing of habitats in the field, rather than surveying from basic maps without context, and is also of use in providing an indication of areas most likely to be suitable for protected species. Online data sources used included OS Master Map, National Woodland Survey of Scotland, Habitat Map of Scotland (HABMOS), the Ancient Woodland Inventory, the Carbon and Peatland Map and Habitats and Land Cover Maps (Scotland, 2020), which would then be ground truthed during field surveys.

7.5.5 Baseline surveys for protected species and any additional detailed botanical surveys will be undertaken during 2023 to 2024, focussing along the Proposed Alignment once it is identified. The scope of surveys will be informed by:

- Outcomes of the protected species habitat suitability assessments carried out at alignment selection stage. These alignment stage surveys were carried out in late summer 2023 and focussed on suitability of habitats within the alignment options for European Protected Species (EPS), protected under the Conservation (Natural Habitats &c.) Regulations 1994 (as amended), those identified as priority species on the Scottish Biodiversity List (SBL) and/or protected under national legislation such as the Wildlife and Countryside Act 1981 as amended (WCA) or Protection of Badger Act 1992 (PBA).
- Review of relevant desktop data sources, including publicly available map resources and aerial photography; and known protected species distribution maps and priority species conservation areas, including:
  - red squirrel strongholds;
  - wildcat priority areas;
  - GCN, revised geographic zones;
  - pine marten, distribution map;
  - Butterfly Conservation, Scottish priority landscapes;
  - Buglife, B-Lines; and
  - important invertebrate areas.

7.5.6 It is currently anticipated that the following surveys will be required to inform the EIA:

- UK Habitat (UKHab)[46] surveys to identify habitats of conservation importance, ground truth the MCA-based habitat mapping described above, to collect habitat condition assessment data for Biodiversity Net Gain

[45] SNH (2016). Assessing Connectivity with Special Protection Areas (SPAs) Guidance. Available at: https://www.nature.scot/sites/default/files/2022-12/Assessing%20connectivity%20with%20special%20protection%20areas.pdf

[46] Butcher, B., Carey, P., Edmonds, R., Norton, L. and Treweek, J. (2020). The UK Habitat Classification User Manual Version 1.1 Available at: http://www.ukhab.org/

Assessment (BNG) and to inform the need for National Vegetation Classification[47] (NVC) surveys. UKHab surveys will cover the length of the Proposed Alignment, and will cover up to 700 m width to include: alignment and limits of deviation (100 m each side of alignment) plus 250 m each side of this area to gather habitat data that may be need to inform Groundwater Dependant Terrestrial Ecosystem (GWDTE) assessments (see below); plus consideration of habitats for access tracks.

- NVC surveys – targeted to habitats of increased nature conservation importance and potential GWDTE within up to 250 m of a proposed alignment (and where relevant, access tracks). The 250 m survey area follows SEPA guidance[48].
- Otter walkover survey of high suitability watercourses – covering 200 m up and downstream of watercourse crossings[49].
- Monitoring of potential otter resting sites identified during the otter walkover survey.
- Water vole walkover survey of high suitability watercourses – where feasible, covering 200 m up and downstream of watercourse crossings[50] undertaken concurrently with the otter survey.
- Fish and FWPM habitat suitability survey of high suitability watercourses – undertaken concurrently with the otter survey.
- Habitat Suitability Index (HSI) surveys of high suitability groups of waterbodies with the potential to support GCN.
- eDNA surveys of waterbodies found to present the potential to support GCN during the HSI survey.
- Badger walkover surveys will be undertaken up to 100 m[51] from the Proposed Alignment and access tracks in high suitability habitats. Surveys will identify and record badger signs and potential setts.
- Wildcat habitat suitability walkover survey, extended to up to 200 m from the Proposed Alignment and access tracks, in moderate and high suitability habitats.
- Red squirrel, pine marten and bat surveys will be undertaken across woodland/identified trees with suitability to support these species / groups. Surveys for each will comprise the following:
    - Red squirrel walkover surveys will be undertaken across high suitability habitat within 50 m[52] of the Proposed Alignment (and access tracks where relevant). Surveys will identify signs (sightings, feeding signs) and drays/potential drays.
    - Pine marten walkover surveys will be undertaken across high suitability habitat within 250 m[53] of the Proposed Alignment (and access tracks where relevant). Surveys will identify signs (sightings, feeding signs) and dens/potential dens.
    - Bat Preliminary Roost Assessment (PRA) will be undertaken across high suitability habitat within 30 m of the Proposed Alignment (and access tracks where relevant) to identify individual structures, trees or woodland coppices (as appropriate) with bat roost suitability[54].
    - Bat detailed surveys comprising aerial tree climbing and bat activity surveys of potential roost features identified during the bat PRA.

[47] Rodwell, J. S. (2006). NVC Users' Handbook. ISBN 978 1 86107 574

[48] SEPA (2017). Guidance on Assessing the Impacts of Development Proposals on Groundwater Abstractions and Groundwater Dependent Terrestrial Ecosystems. Available at: https://www.sepa.org.uk/media/144266/lups-gu31-guidance-on-assessing-the-impacts-of-development-proposals-on-groundwater-abstractions.pdf

[49] NatureScot (2020). Standing advice for planning consolations. Protected species – Otter. Available at: https://www.nature.scot/doc/standing-advice-planning-consultations-otters#:~:text=All%20suitable%20otter%20habitat%20within,if%20breeding%20is%20taking%20place.

[50] NatureScot (2020). Species planning advice – water vole. Available at: https://www.nature.scot/sites/default/files/2018-09/Species%20Planning%20Advice%20-%20water%20vole.pdf

[51] NatureScot (2020). Species planning advice – badger. Available at: https://www.nature.scot/sites/default/files/2020-06/Species%20Planning%20Advice%20-%20badger.pdf

[52] NatureScot (2020). Standing advice for planning consolations. Protected species – red squirrel. Available at: https://www.nature.scot/doc/standing-advice-planning-consultations-red-squirrels#:~:text=Design%20the%20development%20and%20construction,NatureScot%20before%20they%20can%20proceed.

[53] NatureScot (2020). Species planning advice – pine marten. Available at: https://www.nature.scot/doc/standing-advice-planning-consultations-pine-martens#:~:text=For%20dens%20where%20pine%20martens,(March%2DJune%20inclusive).

[54] Collins J. (ed.) (2023). Bat Surveys for Professional Ecologists, Good Practice Guidelines (4th Edition). The Bat Conservation Trust, London.

7.5.7 Invasive non-native species will be recorded as incidentals during all of the above surveys. Locations and approximate extents will be recorded as target notes with records focusing on the species listed by NatureScot as potentially causing the most damage to biodiversity.

7.5.8 Protected species surveys listed above would be targeted to areas of high suitability for all species, except for wildcat which would be focused on area of high and medium suitability for wildcat.

7.5.9 The results of these surveys would be used to inform an Ecological Impact Assessment (EcIA) of the Proposed Development, carried out in accordance with the Chartered Institute of Ecology and Environmental Management (CIEEM) Guidelines for Ecological Impact Assessment (2018[55]), and with due consideration of any other relevant legislation, policy or guidance.

7.5.10 Where appropriate, mitigation measures would be recommended within the EcIA to remedy any adverse effects, and measures to enhance the local ecology would also be incorporated within the assessment. An assessment of residual effects would then be undertaken and reported within the EIA Report.

7.5.11 The HRA will be carried out in parallel with the EcIA.

7.6 Issues to be Scoped Out

7.6.1 At present the EcIA and surveys to inform it are as stated above. As surveys and consultation progress, the scope of survey and assessment will be reviewed to ensure a proportionate assessment.

[55] CIEEM (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine (version 1.2 updated April 2022). Chartered Institute of Ecology and Environmental Management, Winchester. Available at: https://cieem.net/wp-content/uploads/2018/08/ECIA-Guidelines-2018-Terrestrial-Freshwater-Coastal-and-Marine-V1.2-April-22-Compressed.pdf

8. ORNITHOLOGY

8.1 Introduction

8.1.1 This Chapter of the Scoping Report provides an overview of the desk studies and field surveys that have been undertaken and are ongoing to inform the ornithological baseline conditions, the potential effects associated with the Proposed Development and the proposed scope of assessment methodology to be considered in the EIA Report.

8.2 Baseline Conditions

Field Survey Methodologies

Background to Establishing Scope of Ornithological Survey Programme

8.2.1 As part of the previous Corridor Options appraisal, a high-level habitat suitability assessment of the corridor options was undertaken for legally protected and notable species of conservation concern (referred to hereafter as 'Target Species'). Target Species are those which correspond to any of the following criteria, in accordance with the relevant NatureScot[56, 57] and Scottish Hydro Electric Transmission guidance[58], but do not include passerines as they are not considered to be at risk of being significantly affected by OHL developments (as noted in NatureScot's guidance[56]):

- listed on Annex I of the EU Directive on the Conservation of Wild Birds 79/409/EEC (the 'Birds Directive') (Annex I);
- listed on Schedule 1 (including Schedule 1A and/or A1) of the Wildlife and Countryside Act (1981) (Schedule 1);
- listed as 'Red' Birds of Conservation Concern 2021 (BoCC)[59]; and
- listed on the Scottish Biodiversity List (SBL).

8.2.2 The habitat suitability assessment identified that the low-lying agricultural land associated with the coastal plain between Beauly and Blackhillock represents potentially suitable foraging habitat for overwintering waterfowl associated with the coastal and estuarine wetland habitats, such as swans, geese and wading birds. These lowland areas are interspersed with moderate to large areas of forestry which have the potential to support various raptor Target Species including red kite, osprey and goshawk. Some of the more extensive areas of coniferous forestry may also support capercaillie. Further inland the land rises up towards the Cairngorms National Park and these upland habitats could support other sensitive species such as breeding wading birds, black grouse, peregrine, hen harrier and possibly golden eagle. Additionally, the various agricultural, woodland and upland habitats located between Beauly to Blackhillock are likely to support a range of other Target Species during the breeding and non-breeding seasons.

8.2.3 Between Blackhillock and Peterhead the landscape is dominated by a patchwork of intensively managed agricultural land interspersed by small blocks of coniferous and mixed woodland. Those areas located nearest to the coast at Peterhead represent potentially suitable foraging habitat for overwintering waterfowl associated with the adjacent and wider surrounding coastal, estuarine and freshwater wetland habitats, such as swans, geese and wading birds. Inland from the coast, the agricultural fields and scattered woodlands could potentially support raptor species such as red kite and goshawk as well as a range of other Target Species during the breeding and non-breeding seasons. Through consultation with RSPB Scotland, Scotland's only breeding pairs of common crane are also understood to occur in this part of the Proposed Route.

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[56] SNH (2016). Assessment and mitigation of impacts of power lines and guyed meteorological masts on birds. Version 1, July 2016. Available at: https://www.nature.scot/doc/guidance-assessment-and-mitigation-impacts-power-lines-and-guyed-meteorological-masts-birds

[57] SNH (2017). Recommended bird survey methods to inform impact assessment of onshore windfarms. Version 2, March 2017. Available at: https://www.nature.scot/sites/default/files/2018-06/Guidance%20Note%20-%20Recommended%20bird%20survey%20methods%20to%20inform%20impact%20assessment%20of%20onshore%20windfarms.pdf

[58] Coleman, M., Fitchet, A., Seller, J., Williams, F. & Wright, P. (2016). SHE Transmission Ornithology Workshop – Ornithology Methods for Transmission Developments. SHE Transmission.

[59] Birds of Conservation Concern 2021. https://www.bto.org/sites/default/files/publications/bocc-5-a5-4pp-single-pages.pdf

8.2.4 Following the Corridor and Route appraisal stages, a Proposed Route was selected which traversed the predominantly agricultural and forested habitats of the River Beauly, River Nairn, River Findhorn, River Lossie and River Spey valleys between Beauly and Blackhillock, before continuing eastwards across the intensively managed agricultural land which predominates between Blackhillock and Peterhead.

8.2.5 To inform the ongoing alignment selection stage and the overall assessment of the Proposed Development, a 12-month programme of ornithological surveys has been carried out between September 2022 and August 2023 to inform the selection of a Proposed Route and to aid in informing the Ornithological Impact Assessment (OIA) of the EIA. An overview of these surveys is provided below.

Overview of Ornithological Surveys Undertaken

Flight Activity Surveys

8.2.6 The ornithological surveys have involved a series of flight activity surveys which have been carried out from 11 strategic VPs overlooking the areas of habitat for key Target Species (particularly overwintering waterfowl and raptors) along the Preferred Route[60]. The majority of VPs have been positioned overlooking river valleys, woodlands and areas of open moorland, while one VP was also informed by responses from local residents during consultation at Routing Stage. It should be noted though that due to the scale of the proposed OHL, the number of VPs and the coverage of their viewsheds has been rationalised to focus only on those areas which are considered to represent the most suitable habitat for key Target Species. This approach has been understood and accepted by NatureScot through consultation on the scope of ornithological surveys to inform the EIA for the Proposed Development[61, 62]. By extension, these were areas where flight activity by Target Species was expected to be most frequent and hence where potential 'collision hotspots' with the proposed OHL may exist. In summary, these areas were the following:

- Surveys from those VPs overlooking river valleys which may be used by commuting corridors by overwintering waterfowl. Surveys commenced in September 2022 and covered the 2022/23 non-breeding season (September to February, inclusive) as well as the 2023 breeding season (March to August inclusive).
- Surveys overlooking moorland and woodland habitats primarily for breeding raptors and wading birds were conducted over the 2023 breeding season only. A minimum of 36 hours of survey effort has been completed from each of these VPs in each season.

8.2.7 Following the completion of the above surveys, an additional programme of flight activity surveys focussing overwintering geese is being undertaken over the 2023/24 non-breeding season (September to March inclusive) at the eastern end of the Proposed Route, between Maud and Longside. These surveys involve two VPs overlooking areas of open agricultural fields which are reported to be regularly overflown by geese during the autumn, winter and spring months.

Breeding Bird Surveys

8.2.8 As well as the flight activity surveys detailed above, a range of surveys have also been conducted along the Preferred Route over the 2023 breeding season for scarce raptors, common crane, lekking black grouse and capercaillie and wading birds. As with flight activity surveys, the scope of these surveys has been rationalised to focus on the most suitable habitats for these various Target Species due to the scale of the Proposed Development. This approach has been agreed in consultation with NatureScot[61, 62].

8.2.9 Scarce breeding bird surveys were undertaken between March and July 2023 across focal areas of suitable habitat for scarce raptors within 2 km of the Preferred Route. These surveys also included searches for breeding divers and breeding waders within 1 km and 500 m of the Preferred Route respectively where suitable habitat existed.

[60] VP surveys started at an early stage in the route optioneering process, originally based on the Preferred Corridor and then refined to the Preferred Route, and have continued to be refined as the OHL routeing process has evolved. Original VPs that became irrelevant were removed from the survey programme.
[61] NatureScot (2022). Response to Beauly - Peterhead 400kV OHL Response to Initial Consultation Request Regarding Ornithological Survey Methods: Jennifer Heatley (e-mail dated 27 October 2022).
[62] NatureScot (2023). Response to Beauly - Peterhead 400kV OHL Response to Further Consultation on Breeding Bird Survey Methods: Jennifer Heatley (e-mail dated 31 May 2023).

8.2.10 Capercaillie surveys were undertaken between March and May 2023 and involved initial, early season walkover surveys of potentially suitable habitat to identify suitable lekking habitat and potentially the presence/absence of capercaillie. Survey areas were also informed by records received from RSPB Scotland. These were followed by lek surveys in areas of most suitable habitat to locate lek sites. The surveys focussed on all potentially suitable woodlands within at least 1.5 km of the Preferred Route between Newlands of Fleenas Wood and Dulsie Wood in the west (located south of Nairn) and Wood of Ordiequish in the east (located west of Keith).

8.2.11 Black grouse surveys were undertaken between March and May 2023 and involved walkover surveys to locate leks across focal areas of suitable habitat within 1.5 km of the Preferred Route.

8.2.12 Common crane surveys were completed across areas in eastern parts of the Preferred Route and were based on records received from RSPB Scotland. The surveys focused on areas around Moss of Crombie near Aberchirder and agricultural lands west of Peterhead.

8.2.13 Additionally, a programme of goose field use surveys is being undertaken over the 2023/24 non-breeding season (September to March inclusive) alongside the additional flight activity surveys at the eastern end of the Proposed Route. These surveys involve monthly counts of geese and any other waterfowl, using the agricultural fields within the preferred route corridor between Maud and Longside.

8.2.14 A second season of breeding bird surveys will be carried out in 2024 focussing on areas where Target Species were identified to be breeding/lekking or where they were readily observed to be present.

Designated Sites

8.2.15 This section discusses relevant sites designated for ornithological interest, including:

- Special Protection Areas (SPAs);
- Ramsar Sites; and
- Sites of Special Scientific Interest (SSSIs).

8.2.16 The Proposed Route is within 2 km of the Inner Moray Firth SPA and Wetland of International Importance (Ramsar Site). The designated interests of these sites include overwintering waterfowl and breeding osprey and the lowland agricultural land and rivers within the Proposed Route represent potentially suitable foraging habitat for these species. The Proposed Route also lies 3.1 km from Loch Ashie SPA which is designated for breeding Slavonian grebe and is 2.4 km from the southern part of Darnaway and Lethen Forest SPA which is designated for breeding capercaillie.

8.2.17 There are also a number of designated sites in the nearby and wider area surrounding the Proposed Route. These include coastal seabird colonies (e.g. Troup, Pennan and Lion's Heads SPA and Buchan Ness to Collieston Coast SPA); estuaries and inland waters which support overwintering waterfowl (e.g. Loch of Strathbeg SPA and Ythan Estuary, Sands of Forvie and Meikle Loch SPA); and important breeding sites for Slavonian grebe (Loch Flemington SPA) and common gull (Tips of Corsemaul and Tom Mor SPA).

Specially Protected and Notable Birds of Conservation Concern

8.2.18 The flight activity surveys undertaken between September 2022 and August 2023 have identified regular passage of migratory and overwintering waterfowl across several sections of the Proposed Route, especially by pink-footed geese and greylag geese. Flight activity has typically occurred along river corridors such as the River Beauly, River Ness/Caledonian Canal, River Findhorn, River Spey and River Isla.

8.2.19 The flight activity surveys have also confirmed the presence and regular flight activity by a range of raptor and wading bird Target Species, particularly over and around the open moorland and forest edge habitats. Red kite has been the most frequently and extensively recorded species with birds having been present throughout the year, while the occurrence of species such as osprey, goshawk, hen harrier, peregrine, merlin, barn owl, red-throated diver and curlew has been more localised along the Proposed Route.

8.2.20 Black grouse have been recorded lekking at several locations along the Proposed Route, predominantly in moorland/forest edge settings, although records have typically involved no more than one or two individual males.

8.2.21 There were no records of capercaillie other than an incidental record of a female bird provided by RSPB Scotland. Similarly, there were no records of common crane within the areas surveyed although birds were observed incidentally in other, wider parts of Aberdeenshire.

8.3 Potential Effects

8.3.1 The potential ornithological effects associated with the construction and operation of the Proposed Development include:

- effects on the integrity of qualifying features of designated nature conservation sites;
- reductions in productivity and/or survival following displacement from key habitats due to disturbance during construction, direct loss of habitat and avoidance of otherwise suitable habitat as a result of the Proposed Development's presence; and
- increased mortality due to collision with the OHL.

8.4 Mitigation

8.4.1 The routeing and alignment selection process for the Proposed Development has considered the potential for significant adverse effects on ornithological receptors throughout the evolution of the project. Any such effects will be avoided wherever possible or at least minimised to an acceptable level through the design process.

8.4.2 Further assessment will continue through the EIA process, and mitigation measures will be developed and embedded into the Proposed Development's design to minimise adverse effects on ornithological receptors, where necessary.

8.5 Proposed Scope and Assessment Methodology

8.5.1 The findings of the ornithological survey programme will be supplemented by data obtained from the Highland and North East Raptor Study Groups, the Roy Dennis Wildlife Foundation (specifically for osprey records), RSPB Scotland and Forestry and Land Scotland (FLS). Data will also be obtained from NBN Atlas and the 2007-2011 Bird Atlas (Balmer et al, 2013[63]). Additionally, the relevant Local Biodiversity Action Plans and targets set out in the Scottish Biodiversity Strategy will also be reviewed.

8.5.2 The results of the surveys and information obtained from the data consultation and desk study exercises would be used to inform the OIA of the Proposed Development which will be carried out in accordance with the CIEEM Guidelines for Ecological Impact Assessment (2018[55]), and with due consideration of any other relevant legislation, policy or guidance.

8.5.3 Where appropriate, mitigation measures would be recommended within the OIA to avoid or at least minimise any adverse effects. Standard good practice construction and operating measures such as sensitive timing of works and pre-works checks for nesting birds will be implemented in line with SSEN Transmission's Bird Species Protection Plan (SPP). Where significant effects on ornithological receptors are identified, measures to prevent, reduce, and where possible offset these adverse effects will be investigated and proposed. Where necessary, a bespoke Bird Protection Plan (BPP) will be produced, focussing on the specific species and aspects of the Proposed Development which pose a risk of adverse impacts, in order to ensure that all reasonable precautions are taken to protect them from significant adverse effects. Additionally, measures to enhance the habitat conditions for features of ornithological interest would also be identified and incorporated into the assessment, where relevant and feasible. An assessment of residual effects would then be undertaken and reported within the EIA Report.

8.5.4 As stated in Section 3.5, an HRA considering likely significant effects on European sites, including those designated for their ornithological interests, will be carried out in parallel with the EIA.

[63] Balmer, D.E.; Gillings, S.; Caffrey, B.J.; Swann, R.L.; Downie, I.S. and Fuller, R.J. (2013). Bird Atlas 2007-2011: the breeding and wintering birds of Britain and Ireland. BTO Books, Thetford.

8.6 Issues to be Scoped Out

8.6.1 In agreement with NatureScot through initial consultation[61], impacts on species associated with the following SPAs have been scoped out for the reasons given below:

- **Tips of Corsemaul and Tom Mor SPA** (breeding common gull): this SPA is approximately 5 km from the Proposed Route, and the birds associated with the SPA are expected to predominantly use agricultural land within this distance in which to forage.
- **Buchan Ness to Collieston Coast SPA** (breeding seabirds): the terminal Peterhead end of the Proposed Route is located over 1 km inland from the coast/SPA, where qualifying species are not expected to occur.
- **Loch Aishe SPA** (post-breeding Slavonian grebe): the Proposed Route is more than 2 km away from this designated site and these birds are not expected to be disturbed by works associated with the Proposed Development at this distance (Goodship and Furness, 2022[64]).

[64] Goodship, N.M. and Furness, R.W. (MacArthur Green) Disturbance Distances Review: An updated literature review of disturbance distances of selected bird species. NatureScot Research Report 1283.

9. CULTURAL HERITAGE

9.1 Introduction

9.1.1 This Chapter of the Scoping Report provides an overview of the cultural heritage baseline in relation to the Proposed Development, describes the potential effects associated with construction and operation of the Proposed Development and presents the assessment methodology to be used in the EIA.

9.2 Baseline Conditions

9.2.1 The assessment will be informed by a review of all available archaeological records, historical documentary evidence, cartographic evidence, and photographic material. This will involve consultation of the following sources:

- GIS data on Scheduled Monuments, Listed Buildings, Conservation Areas, Registered Battlefields, Marine Protection Areas, and Gardens and Designed Landscapes (GDL) obtained from Historic Environment Scotland (HES);
- GIS data on other, non-designated heritage assets obtained from the Scottish National Record of the Historic Environment (SNRHE) which is maintained by HES, and from the local planning authority Historic Environment Records (HER) maintained by the Highland Council Historic Environment Team (HCHET) and the Aberdeenshire Council Archaeology Service (ACAS);
- readily accessible primary and secondary historical sources for information relating to the area's historical past, including past land use;
- pre-Ordnance Survey maps of the Proposed Development area, available online from the National Library of Scotland (NLS);
- first and subsequent editions of the Ordnance Survey (OS) maps of the Proposed Development area, examined via the NLS;
- LIDAR datasets of the general area through NLS;
- the solid and drift geology for the Proposed Development area based on that recorded by the British Geological Survey/Geological Survey of Great Britain maps; and
- the results of a walkover survey of the Proposed Development conducted during the alignment stage, and further walkover surveys to be conducted following design freeze.

9.2.2 A 1 km study area was applied around the Proposed Route to take into consideration the potential for impacts arising through changes within the setting of designated heritage assets. The 1 km study area was chosen due to the lack of potential for significant effects to arise from impacts on designated heritage assets outside of this study area, following initial assessments at route selection stage and responses from consultees. The designated heritage assets within the Proposed Route and within a 1 km study area surrounding it are listed in **Table 9-1** and illustrated on **Figure 2**. Additional heritage assets may be added following consultation with HES and the local planning authority archaeological advisors.

Table 9-1 Designated Heritage Assets

Heritage Asset Designation	Heritage Asset Names and Reference Numbers
Gardens and Designed Landscapes (GDLs)	The following GDLs have been identified within the Proposed Route or within 1 km of the Proposed Route: • Beaufort Castle (GDL00052); • Leys Castle (GDL00264); • Dochfour Castle (GDL00137); • Hatton Castle (GDL00399); • Forglen (GDL00398); and • Blackhills House (GDL00409).

Heritage Asset Designation	Heritage Asset Names and Reference Numbers
Scheduled Monuments	The following Scheduled Monuments have been identified within the Proposed Route or within 1 km of the Proposed Route: • Caledonian Canal, Loch Ness - Dochgarroch Lock (SM6498); • Crow Wood Cottage, chambered cairn and standing stones 265m W of (SM11546); • Torbreck, stone circle SW of (SM3098); • Daviot Castle (SM5486); • Borlum, ring-ditch 170m NE of (SM5142); • Caledonian Canal, Dochgarroch Lock (SM5417); • Kiltarlity Old Parish Church (SM5570); • Milton Tower, Keith (SM5533); • Kinnoir Old Church, church 550m WSW of Corse of Kinnoir (SM5619); • Clackriach Castle (SM5534); • Culburnie, ring cairn & stone circle (SM2425); • Corff House, fort SW of (SM3195); • Dun Mor, fort, Ballindoun (SM2423); • Culdoich, chambered cairn and standing stone 620m S of (SM11851); • Achvraid, hut circles 800m SE of (SM11786); • Easter Rattich, depopulated settlement 575m SSW of Ruallan (SM11876); • Levrattich, cairn 340m W of (SM11738); • Daltullich House, enclosure 245m NE of (SM11533); • Balblair Stone, symbol stone, Moniak Castle Wineries (SM932); • Mains of Daviot Farm, ring cairn and stone circle 600m NNE of (SM3085); • Carn Glas, chambered cairns 815m SE of Achvraid (SM2392); • Arn Hill, stone circle, Rothiemay Station (SM4); • Hare Stone, stone circle 480m NW of Feith-Hill (SM338); • Corrydown, stone circle 150m NE of (SM16); • Parkhouse Hill stone circle (Aikey Brae) (SM2); • North Pitglassie, stone circle 1320m SW of (SM38); • Bogbain Wood, hut circle and field system 400m SSW of Bogbain Farm (SM4698); • Rehiran Farm House, cairn 1530m ESE of (SM11797); • Caledonian Canal, Dochgarroch Lock - Muirtown Locks (SM6499); • Easterton of Lenabo, airship station 750m ESE of (SM13679); and • Stone circle, 365m WSW of Raich Farm (SM42).
Battlefields	• There is a single Inventory Battlefield within 1 km of the Proposed Route – Battle of Culloden (BTL6).
Conservation Areas	• The following Conservation Areas have been identified within the Proposed Route or within 1 km of the Proposed Route: • Culloden Muir (CA667); • Old Deer (CA430); • Keith Mid Street (CA185); and • Keith Fife Keith (CA 186).
Listed Buildings	• The following Category A Listed Buildings have been identified within the Proposed Route or within 1 km of the Proposed Route: Category A: • Ardclach Bell Tower (LB551); • Kellas House (LB2345);

Heritage Asset Designation	Heritage Asset Names and Reference Numbers
	• Auchanachie Castle (LB2345); • Beaufort Castle (LB8068); • Lovat Bridge (LB8083); • Old Parish Church, Longside (LB9410); • Churchyard Gateway, Inn Brae, Longside (LB9412); • Frendraught House (LB9449); • Towie Barclay Castle (LB9412); • St Rufus Church, Church Road, Keith (LB35629); • Old Bridge of Keith, River Islay (LB35661); • Strathisla Distillery, Seafield Avenue, Keith (LB35679); and • West Outbuilding at Corse Croft, Kinnoir, Huntly (LB43681). There are an additional 144 Category B and 92 Category C Listed Buildings within the Proposed Route or within 1 km of the Proposed Route.

9.2.3 Further to the designated heritage assets, an initial assessment has identified 540 non-designated heritage assets on the SNRHE and an additional two heritage assets identified from a walkover survey within the Proposed Route. These include a range of heritage assets dating from the prehistoric to the post-medieval period. It is anticipated that more non-designated heritage assets will be present within the Proposed Development once the data from the HER is provided by the local planning authority archaeological advisors (HCHET and ACAS).

9.3 Potential Effects

9.3.1 The potential cultural heritage effects associated with the construction and operation of the Proposed Development include:

- direct physical impacts to heritage assets during construction; and
- direct impacts through changes within the setting of heritage assets during operation.

9.3.2 It is anticipated that there would be significant effects on non-designated heritage assets where the tower placement, accesses and ancillary works could not avoid their location. Due to the amount of heritage assets within the Proposed Route, it may not be possible to avoid physical impacts on all of them, especially where there are large clusters of known heritage assets, or heritage assets with extensive footprints. Any physical impacts to non-designated heritage assets may result in significant effects prior to mitigation.

9.4 Mitigation

9.4.1 The route selection process (and ongoing alignment selection stage) for the Proposed Development has enabled consideration of likely significant effects on cultural heritage receptors throughout the evolution of the project to date, and the design of the Proposed Development has taken these potential effects into consideration throughout. Further assessment will continue through the alignment and EIA stages, and mitigation measures developed to minimise adverse effects on cultural heritage.

9.5 Proposed Scope and Assessment Methodology

9.5.1 A detailed desk study will be undertaken to inform the cultural heritage baseline, developed through the use of the sources stated above, and will include consultation with HES and the local planning authority archaeological advisors for the Highlands, Moray and Aberdeenshire. The significance of an effect will be assessed by looking at what the changes will be against the existing, or predicted, baseline as a result of the Proposed Development. Impacts on non-designated heritage assets (within the LOD of the Proposed Alignment and access tracks) will be assessed for the Proposed Development.

9.5.2 Effects on the cultural heritage resource will be determined by identifying the value of the heritage assets within the baseline and assessing the magnitude of any potential impacts. Mitigation measures will be recommended to minimise the impact of the development on cultural heritage, and a residual effect will be determined.

9.5.3 The determination of the value of heritage assets is based on statutory designation and/or professional judgement against the characteristics and criteria expressed in HES Designation Policy and Selection Guidance[65] and the Historic Environment Policy for Scotland[66].

9.5.4 **Table 9-2** identifies factors which are appropriate to consider during the assessment of heritage asset value, with the adoption of five ratings for value: very high, high, medium, low, and negligible.

Table 9-2: Criteria for assessing the value of heritage assets

Value	Example
Very High	World Heritage Sites (including nominated sites); and Heritage assets of acknowledged international importance.
High	Scheduled Monuments (including proposed sites); Listed Buildings (Category A and B); Battlefields included within the inventory; Marine Protected Areas; Gardens and Designed Landscapes; Conservation areas containing nationally important buildings; Non-designated heritage assets of scheduled quality and importance; and Heritage assets of national importance.
Medium	Listed Buildings (Category C); Conservation areas containing buildings that contribute significantly to its historic character; and Heritage assets of regional importance.
Low	Heritage assets of local importance; Heritage assets compromised by poor preservation and/or poor survival of contextual associations; and Buildings of modest quality in their fabric or historical association.
Negligible	Heritage assets with very little or no surviving archaeological interest; Artefact find spots (where the artefacts are no longer in situ and where their provenance is uncertain); and Poorly preserved examples of particular types of minor historic landscape features (e.g., quarries and gravel pits, dilapidated sheepfolds, etc).

9.5.5 The criteria for assessing the magnitude of impact from the Proposed Development on heritage assets is shown in **Table 9-3**.

Table 9-3: Criteria for assessing the magnitude of impact on heritage assets

	Adverse	Beneficial
Major	Loss of most or all key archaeological materials or key historic building elements such that the significance of the heritage asset is totally altered.	Preservation of a heritage asset in situ where it would otherwise be completely or almost lost.

[65] Historic Environment Scotland (2019). *Designation Policy and Selection Guidance.* Available at: https://www.historicenvironment.scot/archives-and-research/publications/publication/?publicationId=8d8bbaeb-ce5a-46c1-a558-aa2500ff7d3b

[66] Historic Environment Scotland (2019). *Historic Environment Policy for Scotland.* Available at: https://www.historicenvironment.scot/archives-and-research/publications/publication/?publicationId=1bcfa7b1-28fb-4d4b-b1e6-aa2500f942e7

	Adverse	Beneficial
	Comprehensive changes to setting such as extreme visual effects, gross change of noise or change to sound quality, or fundamental changes to use or access.	Changes that appreciably enhance the cultural significance of a heritage asset and how it is understood, appreciated, and experienced.
Moderate	Changes to many key archaeological materials or key historic building elements, such that the significance of the heritage asset is clearly modified. Considerable changes to setting that affect the character of the heritage asset such as visual change to many key aspects or views, noticeable differences in noise or sound quality, or considerable changes to use or access.	Changes to important elements of a heritage asset's fabric or setting, resulting in its cultural significance being preserved (where this would otherwise be lost) or restored. Changes that improve the way in which the heritage asset is understood, appreciated, and experienced.
Minor	Changes to key archaeological materials or key historic building elements, such that the significance of the heritage asset is slightly altered. Slight changes to setting such as slight visual changes to few key aspects or views, limited changes to noise levels or sound quality, or slight changes to use or access.	Changes that result in elements of a heritage asset's fabric or setting detracting from its cultural significance being removed. Changes that result in a slight improvement in the way a heritage asset is understood, appreciated, and experienced.
Negligible	Changes to archaeological materials or historic buildings elements such that alterations to the significance of the heritage asset are very minor. Very minor changes to setting such as virtually unchanged visual effects, very slight changes in noise levels or sound quality, or very slight changes to use or access.	Very minor changes that result in elements of a heritage asset's fabric or setting detracting from its cultural significance being removed. Very minor changes that result in a slight improvement in the way a heritage asset is understood, appreciated, and experienced.
No Change	Changes to fabric or setting that leave significance unchanged.	

9.5.6 The significance of the effect of change on an attribute of a heritage asset is a function of the importance of the attribute and the scale of change. For this assessment, impacts of **Moderate** or greater significance are potentially significant in the context of the EIA regulations and are highlighted in bold in **Table 9.4**.

Table 9.4: Significance of Effect

		Magnitude of impact				
		Major	Moderate	Minor	Negligible	No Change
Value	Very high	**Very Large**	**Large or Very Large**	**Moderate or Large**	Slight	Neutral
	High	**Large or Very Large**	**Moderate or Large**	**Moderate** or Slight	Slight	Neutral
	Medium	**Moderate or Large**	**Moderate**	Slight	Neutral or Slight	Neutral
	Low	Slight or **Moderate**	Slight	Neutral or Slight	Neutral or Slight	Neutral
	Negligible	Slight	Neutral or Slight	Neutral or Slight	Neutral	Neutral

9.6 Issues to be Scoped Out

9.6.1 It is not anticipated that there will be any indirect impacts from the construction or operation of the Proposed Development, therefore the assessment of indirect impacts on all heritage assets has been scoped out.

9.6.2 The direct physical impacts during construction of the Proposed Development on Scheduled Monuments, Listed Buildings, and Conservation Areas will be scoped out of the cultural heritage assessment as these will be avoided as part of the embedded mitigation for the Proposed Development.

10. WATER AND GEOLOGICAL ENVIRONMENT (HYDROLOGY, HYDROGEOLOGY, GEOLOGY AND SOILS)

10.1 Introduction

10.1.1 This Chapter of the Scoping Report provides a brief overview of the hydrology, hydrogeology, geology and soils environment, the potential effects associated with the Proposed Development, and the proposed scope of assessment methodology to be considered in the EIA Report.

10.2 Baseline Conditions

Study Area

10.2.1 The study area for hydrology, hydrogeology, geology and soils receptors is the Proposed Route for the Beauly to Peterhead OHL.

10.2.2 SEPA's guidance on assessing the impacts of developments on Groundwater Dependent Terrestrial Ecosystems (GWDTE) (LUPS-GU31)[67] requires assessment of potential GWDTE located within 250 m of excavations greater than 1 m in depth and within 100 m of excavations less than 1 m in depth. Therefore, the 'GWDTE study area' includes the area within 250 m of the LOD for the Proposed Development.

Geology and Soils (including peat)

10.2.3 Given the large extent of the Proposed Development, British Geological Survey (BGS) GeoIndex Onshore[68] indicates numerous records of bedrock and superficial deposits at 1:625,000 scale underly the Proposed Development.

10.2.4 The National Soil Map of Scotland indicates a range of soil types including peat throughout the Proposed Route. NatureScot Carbon and Peatland mapping indicates a range of peatland 'Classes' throughout the Proposed Route, including Classes 1 and 2 (nationally important carbon-rich soils, deep peat and priority peatland habitat), particularly in the western extents of the Proposed Route.

Hydrogeology

10.2.5 The online BGS hydrogeology map (1:625,000 scale)[69] shows the Proposed Route is underlain by a combination of both moderate and low productivity aquifers.

10.2.6 The Proposed Route is underlain by numerous groundwater bodies, classified by SEPA as having an overall status ranging from 'Good' to 'Poor' in 2020[70] in their most recent assessment.

Hydrology

10.2.7 There is a complex network of rivers, streams and burns throughout the Proposed Route, along with several standing water bodies.

10.2.8 The main watercourses are:

- The River Beauly, which passes through the far western extents of the Proposed Route in a southwest – northeast direction;

[67] SEPA. SEPA Guidance Note 31 (2017). Available at: https://www.sepa.org.uk/media/144266/lups-gu31-guidance-on-assessing-the-impacts-of-development-proposals-on-groundwater-abstractions.pdf
[68] BGS (2023). GeoIndex Onshore. Available at: https://mapapps2.bgs.ac.uk/geoindex/home.html?_ga=2.214383955.519299777.1698760637-1329375161.1698760637)
[69] BGS (2023). GeoIndex Onshore. Available at: https://mapapps2.bgs.ac.uk/geoindex/home.html?_ga=2.214383955.519299777.1698760637-1329375161.1698760637)
[70] SEPA Water Classification Hub (2023). [online] Available at: https://www.sepa.org.uk/data-visualisation/water-classification-hub/ (Accessed October 2023)

- The Caledonian Canal and River Ness pass through the Proposed Route prior to passing through Inverness in a southwest – northeast direction;
- The River Nairn passes through the western part of the Proposed Route in a southwest – northeast direction;
- The River Findhorn passes through the western part of the Proposed Route in a southwest – northeast direction;
- The River Spey passes through the central part of the Proposed Route, in a southwest – northeast direction;
- The River Deveron passes through the eastern part of the Proposed Route and flows in a southwest-northeast direction between Huntly and Turriff, and then heads north towards its mouth at Banff;
- The River Isla flows in a northwest-southeast direction to the east of Keith until it converges with the River Deveron; and
- The South Ugie Water is the main tributary of the River Ugie, flowing in a west-east direction from the north of Maud to the east of Longside, where it converges with the River Ugie.

10.2.9 Notable standing water bodies include:

- Clunas Reservoir lies at the foot of the northern slopes of Carn Maol in the western part of the Proposed Route;
- Loch Dallas lies central to the Proposed Route; and
- Glenlatterach Reservoir lies central to the Proposed Route.

Flooding

10.2.10 Given the large extent of the Proposed Route, there are numerous sections of the Proposed Development located in areas subject to both river and surface water flooding, based on SEPA indicative flood risk mapping[71].

Water Supplies

10.2.11 According to information provided by the Scottish Environment Protection Agency (SEPA), The Highland Council, Moray Council, and Aberdeenshire Council, there are many authorised abstractions and private water supplies throughout the Proposed Route. There are numerous distilleries in this region that are likely to be abstracting from a range of surface water and groundwater sources.

10.2.12 It is recognised that there are Scottish Water assets and associated Drinking Water Protected Areas (DWPA) within the Proposed Route, including:

- 'The Spey Boreholes, Dipple and the Ordiequish Collecting Chambers' which supply the Spey Scheme (Badentinan) Water Treatment Works (WTW);
- 'Glenlatterach reservoir' which supplies Glenlatterach WTW;
- 'Burn of Davidstone and Shenwell Spring' which supply Herricks WTW;
- 'River Deveron (Muiresk Intake)' which supplies Turriff WTW; and
- 'River Ugie' which supplies Forehill WTW.

10.2.13 The SEPA DWPA maps indicate that the Proposed Route encompasses DWPAs for both groundwater and surface water.

Fisheries

10.2.14 There are several fisheries responsible for the management of rivers, such as those noted above and their tributaries, and their fish populations, including Atlantic salmon and sea trout.

[71] SEPA (2023). Flood Maps. Available at: https://scottishepa.maps.arcgis.com/apps/webappviewer/index.html?id=b3cfd390efa44e3b8a72a07cf5767663&showLayers=FloodMapsBasic_5265;FloodMapsBasic_5265_0;FloodMapsBasic_5265_1;FloodMapsBasic_5265_2;FloodMapsBasic_5265_3;FloodMapsBasic_5265_4;FloodMapsBasic_5265_5;FloodMapsBasic_5265_6;FloodMapsBasic_5265_7;FloodMapsBasic_5265_8;FloodMapsBasic_5265_9;FloodMapsBasic_5265_10;FloodMapsBasic_5265_11

Groundwater Dependent Terrestrial Ecosystems

10.2.15 Habitat survey information was not available at the time of this Scoping Report to establish habitats indicative of potential GWDTE. However, potential GWDTE are anticipated to be present within the GWDTE study area and will be considered when UKHab and NVC information becomes available as part of the EIA.

10.3 Potential Effects

10.3.1 Construction and operation of the Proposed Development has the potential to result in the following effects without appropriate controls or mitigation:

Construction

- pollution of surface watercourses and groundwater; including from suspended sediment in surface water bodies, hydrocarbon and oil pollution;
- impacts on public and private water supplies, including DWPAs, both in terms of water quality and security of supply;
- flooding; including from the obstruction of watercourses during construction and increased runoff due to soil compaction;
- soil erosion, compaction and excavation losses during access or construction;
- mobilisation of contaminated soil / bedrock;
- peat disturbance and losses during access or construction;
- the carbon emissions arising from loss or disturbance to peatland;
- impact on water resource availability, including impacts to groundwater levels from any dewatering required;
- modifications to groundwater conditions, including levels and flows, which may cause alteration to receptors such as GWDTE or groundwater-fed water supplies; and
- impact of pollution on fisheries; including from suspended sediment in surface water bodies, hydrocarbon and oil pollution;

Operation

- impacts on groundwater levels and flows as a result of the proposed permanent access tracks;
- modifications to groundwater conditions, including levels and flows, which may cause alteration to receptors such as GWDTE or groundwater-fed water supplies; and
- flooding, through increased surface water runoff from new impermeable areas.

10.4 Mitigation

10.4.1 The EIA process will advise the iterative design process for the Proposed Development, to ensure the careful siting of infrastructure and construction access, where practicable, to reduce the potential effects to the hydrology, hydrogeology, geology and soils environment. With the assumption that construction good practice will be applied and through implementation of standard mitigation measures detailed within the Applicant's GEMPs, it is anticipated that potential effects will be further reduced.

10.4.2 Specific mitigation measures will be proposed, where required, for potential significant effects. In this case, it is anticipated that the main issues are potential significant effects related to:

- impacts on public and private water supplies, including DWPAs, both in terms of water quality and security of supply;
- peat disturbance and losses during access or construction; and
- modifications to groundwater conditions, including levels and flows, which may cause alteration to receptors such as GWDTE or groundwater-fed water supplies.

10.5 Proposed Scope and Methodology of Assessment

10.5.1 The assessment of effects will be carried out in accordance with a range of standard guidance documents from Construction Industry Research and Information Association (CIRIA), Forestry and Land Scotland (FLS), SEPA, NatureScot, the Scottish Government and Scottish Renewables relating to water pollution, abstractions, watercourse crossings, sustainable drainage, peat management and forestry; taking into account that the Applicant's GEMPs and the project CEMPs will be adhered to.

10.5.2 The following tasks will be undertaken in the completion of the assessment:

- desk-based study to obtain baseline and historical data;
- site-based work (private water supplies and peat surveys);
- identification of the potential impacts of the Proposed Development and assessment of their significance based on the magnitude of the impact and the sensitivity of receptors; and
- identification of options for the mitigation of potential effects in accordance with applicable legislation, policies, and guidance.

10.5.3 The desk-based study will be designed to assist in determining the baseline characteristics within the specified study areas and will collate baseline information from available sources. The desk-based study will typically involve the following elements:

- use of Ordnance Survey (OS) maps to identify watercourse catchments and standing water bodies within 1 km of the Proposed Development;
- identification of any relevant designated or protected sites within 1 km of the Proposed Development;
- collation of historical hydrological and flooding information (where available);
- review of SEPA flood risk areas;
- collation of preliminary data on public and private water abstractions;
- collation of available meteorological data for the Eastern and Northern Scotland climate regions;
- collation of available surface water and groundwater quality data for the region;
- interpretation and collation of habitat information in relation to potential GWDTE; and
- collation of current land use information.

10.5.4 Site surveys will establish specific receptors considered to be at risk. The impact assessment will be undertaken in accordance with the EIA Regulations and the significance of effects will be determined using a combination of magnitude of effect, sensitivity of receptor and probability.

10.5.5 This assessment will include the impacts of any works required for access routes. Particular attention will be paid to the potential hydrological and water quality impacts upon any water supplies within the vicinity of the Proposed Development and any aquatic ecological features identified within the ecology assessment. The potential water quality impacts through enhanced erosion of disturbed peat will also be considered.

10.5.6 The design will aim to maintain a 50 m buffer from water features in general and a 10 m minimum buffer in accordance with SEPA advice (20 m if a watercourse identified as having geomorphic risk as specified by SEPA). If this minimum buffer cannot be achieved further detail will be provided of the location and what is proposed in terms of engineering works.

10.5.7 A private water supply screening assessment will be undertaken to identify supplies at risk of adverse effect from the Proposed Development. Consultation with supply owners and site visits will verify information collated, where required. Detailed private water supply risk assessment will be undertaken as identified as required, in accordance with SEPA guidance[72].

[72] SEPA (2017). SEPA Guidance Note 31 (2017). Available at: https://www.sepa.org.uk/media/144266/lups-gu31-guidance-on-assessing-the-impacts-of-development-proposals-on-groundwater-abstractions.pdf

10.5.8 Phase 1 peat depth data to inform the OHL alignment selection stage and access strategy is being gathered using a combination of 10 m resolution modelled soil carbon mapping data from the James Hutton Institute and validation peat probing across the study area. This approach is considered to be proportionate considering the large spatial extent of the study area. Conventional Phase 2 peat probing and coring will subsequently be undertaken of the Proposed Development to inform the EIA. This will be used in combination with known areas of which include nationally important carbon-rich soils, deep peat and priority peatland habitat, to provide a good level of understanding of site baseline peat stability conditions. A Peat Landslide Hazard and Risk Assessment (PLHRA) will be undertaken, which shall include characterisation of the peatland features, description of observed peat instability, interpretation of aerial imagery, analysis of peat depth and factor of safety stability data to highlight any areas of specific initial concern (high or moderate risk) informed by the Peat Landslide Hazard and Risk Assessments: Best Practice Guide for Proposed Electricity Generation Developments 2017 Scottish Government Guidance[73]. This will utilise peat depth and condition survey data (probing and coring) collected in accordance with Scottish Government Peat Survey guidance[74].

10.5.9 An Outline Soil and Peat Management Plan (SPMP) is proposed to define the likely excavation volume based on the Proposed Development's layout and underlying peat conditions, which will evaluate options to minimise/re-use excavated volumes. The findings of this Outline SPMP will be used by the appointed Principal Contractor as a basis for preparing the detailed construction SPMP, as part of a Construction Environmental Management Plan (CEMP) during construction.

10.5.10 A peatland carbon emission assessment will be undertaken in line with the Peatland Carbon Code[75] and the NPF4 Policy 5 to assess the potential effects of the Proposed Development through peatland disturbance. This assessment will utilise the peat depth and condition survey data (probing and coring) collected in accordance with Scottish Government peat survey guidance.

10.5.11 A GWDTE assessment will be completed as part of the EIA Report, and the assessment will be informed by the findings of the UKHab habitat and NVC surveys, and hydrogeological information from BGS.

10.5.12 The Proposed Development will be assessed for flood risk in line with NPF4. A basic flood risk assessment will be undertaken, which will involve a review of previous flood risk assessment undertaken during routeing and alignment stages, and current SEPA flood risk mapping. A full flood risk assessment would be carried out, if required.

10.6 Issues to be Scoped Out

10.6.1 Based on professional judgement and with the assumption of good design and implementation of good practice construction measures including the Applicant's GEMPs, it is considered that the following would not give rise to significant construction effects and therefore can be scoped out:

- pollution of surface watercourses and impact of pollution on fisheries and groundwater; including from suspended sediment in surface water bodies, hydrocarbon and oil pollution;
- impact on watercourses and standing waters, including impacts to groundwater levels from any dewatering required;
- soil erosion, compaction and excavation losses during access or construction.

[73] Scottish Government (2017). Peat Landslide Hazard and Risk Assessment: Best Practice Guide for Proposed Electricity Generation Developments. Available at: https://www.gov.scot/binaries/content/documents/govscot/publications/advice-and-guidance/2017/04/peat-landslide-hazard-risk-assessments-best-practice-guide-proposed-electricity/documents/00517176-pdf/00517176-pdf/govscot%3Adocument/00517176.pdf

[74] Scottish Government (2017), Scottish Natural Heritage, SEPA (2017). Peatland Survey. Guidance on Developments on Peatland. Available at: https://www.gov.scot/binaries/content/documents/govscot/publications/advice-and-guidance/2018/12/peatland-survey-guidance/documents/peatland-survey-guidance-2017/peatland-survey-guidance-2017/govscot%3Adocument/Guidance%2Bon%2Bdevelopments%2Bon%2Bpeatland%2B-%2Bpeatland%2Bsurvey%2B-%2B2017.pdf

[75] International Union for the Conservation of Nature (ICUN) (2023). Peatland Carbon Code. Available at: https://www.iucn-uk-peatlandprogramme.org/peatland-code-0

11. FORESTRY

11.1 Introduction

11.1.1 This Chapter of the Scoping Report provides a brief overview of the forestry baseline conditions, the potential effects associated with construction and operation of the Proposed Development and the proposed scope of assessment methodology to be considered in the EIA Report.

11.2 Baseline Conditions

11.2.1 The Proposed Development, running west to east from Beauly to Peterhead, passes through three local planning authority areas, Highland, Moray and Aberdeenshire, as illustrated in **Figure 1**.

Section 1: The Highland Council

*Beauly to Craig Leach (**Figure 2, page 1 of 12**)*

11.2.2 Within this section the Proposed Development interacts with sporadic areas of commercial conifer and broadleaved plantations, including Fanellan Wood to the east of the proposed Fanellan 400 kV substation site, Balblair Wood to the south of the existing Beauly Substation, Croiche Wood to the west of the River Beauly and Balchraggan Wood to the east of the River Beauly. New wayleaves would be required through each of these plantations over a short distance. To the southeast of Easter Moniack, the Proposed Development passes through significant areas of commercial conifer plantations at Mam Mor, Cnoc na Moine and Craig Leach, where new wayleaves would be required over an extended distance.

*Craig Leach to Meall Morr (**Figure 2, page 2 of 12**)*

11.2.3 Within this section the Proposed Development interacts with sporadic commercial conifer and broadleaved plantations, including at Lagnalean to the west of the Caledonian Canal crossing, and east through Cullaird, Essich and Balrobert plantations. New wayleaves would be required through these plantations over short distances. Further east, the Proposed Development passes through significant areas of commercial conifer plantations leading through Wester Caulan, Dundavie and Meall Mor. The Proposed Development runs parallel to an existing 275 kV OHL through Dundavie and Meall Mor plantations, potentially providing the opportunity to extend the current wayleave to the south in these areas rather than creating a new wayleave.

*Meall Mor to Clunas (**Figure 2, page 3 of 12**)*

11.2.4 The Proposed Development interacts with a sporadic distribution of sparsely planted commercial conifer plantation through nearby Beinn Uan and Saddle Hill. A new or extended wayleave would be required over medium distances dependent on the final alignment selection. Further east, the Proposed Development interacts with significant areas of predominantly commercial conifer and some broadleaved plantations through Clunas Wood. This section would require a new wayleave over an extended distance.

*Clunas to Cairn Duhie (**Figure 2, page 4 of 12**)*

11.2.5 Within this section the Proposed Development interacts with significant areas of commercial conifer plantations including Newlands of Fleenas Wood, the northern part of Dulsie Wood and the south of New Inn Wood. The existing 275 kV OHL affords the opportunity to run parallel and extend the current wayleave, or a new wayleave may be required, dependent on the final alignment selection.

Section 2: Moray Council

*Cairn Duhie to Hill of Tomchole (**Figure 2, page 4 of 12**)*

11.2.6 Within this section the Proposed Development interacts with small areas of commercial conifer plantation at Tombain Wood and Tomcork Wood, through which new wayleaves would be required over short distances.

*Hill of Tomchole to Lochbuie (**Figure 2, page 5 of 12**)*

11.2.7 The Proposed Development interacts with a significant area of commercial conifer plantation spanning from Hill of Tomchole to Moss of Bednawinny. This would require a new wayleave over extended distances. A smaller area of commercial conifer plantation, at Mill Buie, would also require a new wayleave.

*Lochbuie to the River Spey (**Figure 2, page 6 of 12**)*

11.2.8 Within this section, the Proposed Development interacts with a significant area of commercial conifer plantation from Lochbuie to Hart Hill, through which a new wayleave would be required over an extended distance. Smaller areas of commercial plantation at Teindland Wood would require a new wayleave over shorter distances, dependant on the final alignment selection. The existing 275 kV OHL affords the opportunity to run parallel to the south, extending the current wayleave through this area.

*The River Spey to Blackhillock (**Figure 2, page 7 of 12**)*

11.2.9 Within this section, the Proposed Development interacts with significant areas of commercial conifer plantations through the Wood of Ordiequish. Dependent on final alignment selection there may be an opportunity to run parallel with the existing 132 kV and 275 kV OHLs and extend the current wayleave, or create a new wayleave further north. Smaller areas of commercial plantations are present to the east at Forgie Hill and Tarrycroys, and to the south of Keith at Hillockhead Wood and Hill of Greenwood. Dependant on final alignment selection, new wayleaves may be required over shorter distances through these areas.

Section 3: Aberdeenshire Council

*Blackhillock to Millburn (**Figure 2, page 8 of 12**)*

11.2.10 The Proposed Development interacts with small areas of commercial conifer and broadleaved plantations, including the south of Balloch Wood, Garrowmuir Wood, Brown Hill Plantation, the north of The Bin Forest and Auchmull Wood. Dependent on the final alignment selection, new wayleaves would be required through these areas over short to medium distances.

*Millburn to Hillhead of Ardmiddle (**Figure 2, page 9 of 12**)*

11.2.11 Within the west of this section, the Proposed Development interacts with small areas of commercial conifer plantations including Longmoor Wood and Newmill of Pitfancy. These would require a new wayleave over short distances dependant on the location of the final alignment. Further east, more significant areas of commercial forestry plantations are present at Bogcoup, South Balnoon, Drumblair Woods, Feith Hill and Lenshaw. A new wayleave may be required through these plantations over extended distances depending on final alignment selection.

*Hillhead of Ardmiddle to Allathan (**Figure 2, page 10 of 12**)*

11.2.12 The Proposed Development interacts with small areas of commercial conifer plantations at Wood of Ardmiddle, Hill of Dorlaithers, Bogside, Balquholly, Den of Gask, Woodlands of Craighill, Wood of Boggieshalloch, Wood of Darra, Torunament Hillock, Roadside, Boghead and Northburnhill. Dependant on final alignment selection a new wayleave may be required over short distances through these areas.

*Allathan to Brae of Coynach (**Figure 2, page 11 of 12**)*

11.2.13 Within this section, the Proposed Development interacts with a sporadic distribution of relatively small areas of commercial conifer and broadleaved plantations, including Wind Hill, Bruntbrae and Mains of Crichie. A new wayleave over short distances would be required, dependant on the final alignment selection.

*Brae of Coynach to Netherton (**Figure 2, page 12 of 12**)*

11.2.14 Within this section, the Proposed Development interacts with a sporadic distribution of relatively small areas of unnamed commercial conifer plantations. Dependant on final alignment selection a new wayleave may be required over short distances through these areas.

11.2.15 Across all regions several areas of woodland are classed as Long Established Woodland of Plantation Origin and there are also small pockets of woodland classed as Ancient Woodland of Semi-natural Origin, which are listed on the Ancient Woodland Inventory (AWI).

11.2.16 Native Woodland, as defined by the Native Woodland Survey of Scotland, is present generally in small coups scattered across the Proposed Route, with larger areas at Daviot Wood and Dulsie Wood.

11.3 Potential Effects

11.3.1 The Proposed Development would require the felling of commercial forestry plantation during construction, and the creation of a managed wayleave once operational. The potential forestry effects associated with the construction and operation of the Proposed Development therefore includes:

1 Temporary or Permanent woodland cover loss and fragmentation;

2 Potential for wind throw risk and identification of wind firm boundaries;

3 Potential for forest landscape impact and identification of forest landscape design boundaries; and

4 Loss of timber volume production due to early felling.

11.4 Mitigation

11.4.1 The routeing and alignment selection process for the Proposed Development has enabled consideration of likely significant effects on forestry throughout the evolution of the project to date.

11.4.2 In line with the Scottish Government's policy on control of woodland removal[76], compensatory planting would be required for all areas of woodland loss associated with the Proposed Development. This would be discussed with Scottish Forestry, Forestry and Land Scotland, other forestry owners and The Highland Council, Moray Council and Aberdeenshire Council.

11.5 Proposed Scope and Methodology of Assessment

11.5.1 The forestry assessment will focus on areas of commercial forestry through which the Proposed Development would be routed. Consideration will be undertaken on achieving resilience from tree fall e.g. Powerline tree 'Red Zone' assessment based on a pragmatic appraisal of the maximum growth height of trees. Tree growth height appraisal will consider all site and species factors. Where necessary, forestry wind throw hazard and forest landscape assessment will be considered on the impact of woodland removal areas. Where wind throw and forest landscape impact is predicted, consideration will be made as to the requirement of felling to desirable wind firm and forest landscape boundaries.

11.5.2 This assessment will be based on the requirement to form an Operational Corridor (OC), while recognising the potential impact over broader forest management from the Proposed Development. The assessment will consider the OC only and is not proposed to address overall Forest Plans. Any felling undertaken outwith the OC would be solely under the control of the land owner, and the Applicant would not have any influence or control over such. Consequently, the assessment is limited to consideration of the effects of the Proposed Development on forest composition and yield.

[76] Scottish Government, (2019). *The Scottish Government's Policy on Control of Woodland Removal.* (online) Available at: https://forestry.gov.scot/publications/285-the-scottish-government-s-policy-on-control-of-woodland-removal/viewdocument (Last accessed: 26 March 2020).

11.6 Issues to be Scoped Out

11.6.1 Secondary effects resulting from forestry activities, including effects on habitats and species, ornithology, hydrology and landscape and visual effects, would be considered within their respective chapters of this EIA Report and would not be included within the Forestry Chapter.

12. TRAFFIC AND TRANSPORT

12.1 Introduction

12.1.1 This Chapter of the Scoping Report provides a brief overview of the traffic and transport baseline conditions, the potential effects associated with construction and operation of the Proposed Development and the proposed scope of assessment methodology to be considered in the EIA Report.

12.2 Baseline Conditions

12.2.1 While the Proposed Route crosses a number of classified roads, including the A9 and A95 which form part of the strategic road network, the nature of the OHL results in it passing through predominantly rural areas. Construction activities will be supported by the use of existing roads and forestry tracks where practicable, with new stone tracks constructed where necessary.

12.2.2 The route of the Proposed Development crosses the following roads and it is intended that these form the basis of the study area for the purpose of the assessment:

- The A831, A833 and A862 south of Beauly;
- The A82, A8082 and A9 south of Inverness;
- The A939, A940 and A941 south of Nairn, Forres and Elgin;
- The A96 and A95 west of Keith;
- The A97 to the northeast of Keith;
- The A947 to the south of Turriff;
- The A981 and A948 in the vicinity of New Deer;
- The A952 to the south of Mintlaw; and
- The A950 and A90 which will support construction vehicles accessing the Proposed Development to the west of Peterhead.

12.2.3 Baseline traffic flow information will be obtained from Transport Scotland and the Department of Transport's Road Traffic Statistics website [77] to support the assessment, with additional traffic surveys undertaken through the installation of Automatic Traffic Counts where no data is available.

12.2.4 Personal injury accident data will be extracted from the Crashmap database[78] for the roads located within the study area to enable a review of the Proposed Development's impact on the safety of road users to be assessed.

12.2.5 The Proposed Route also crosses a number of national cycle routes and footpaths.

12.3 Potential Effects

12.3.1 While the Proposed Route is approximately 192 km in length, its construction is not anticipated to generate a significant number of vehicles, with the impact of these movements further reduced with access from the adopted road network being taken from multiple locations.

12.3.2 In accordance with the Institute of Environmental Management and Assessment (IEMA) Guidelines for the Environmental Assessment of Traffic and Movement[79], the thresholds above which there is considered to be the potential for significant effects are:

- on road links where traffic flows are predicted to increase by more than 30 % (or where the number of heavy goods vehicles is predicted to increase by more than 30 %); and

[77] Department for Transport. Road Traffic Statistics. Available at https://roadtraffic.dft.gov.uk/#6/55.250/-1.000/basemap-regions-countpoints]
[78] Crashmap database. Available at www.crashmap.co.uk
[79] Institute of Environmental Management and Assessment (2023). Guidelines for the Environmental Assessment of Traffic and Movement. Available at: https://www.iema.net/resources/blog/2023/07/12/new-iema-guidance-environmental-assessment-of-traffic-and-movement]

- traffic flows are predicted by 10 % or more in any other specifically sensitive areas.

12.3.3 Where the predicted growth in traffic flow is below the thresholds, the IEMA guidelines suggest the significance of the effects can be stated to be negligible and further detailed assessment is not warranted.

12.3.4 Potential effects may include:

- increased traffic flows;
- severance;
- fear and intimidation;
- driver delay;
- accidents and safety; and
- pedestrian amenity and pedestrian delay.

12.4 Mitigation

12.4.1 A Construction Traffic Management Plan (CTMP) will be developed to ensure road safety for all other road users during construction works, and for suitable management of any abnormal loads involved. The CTMP will be developed in consultation with The Highland Council, Moray Council and Aberdeenshire Council as roads authorities for the areas through which the Proposed Development will pass through.

12.5 Proposed Scope and Methodology Assessment

12.5.1 The proposed scope for the traffic and transport assessment, which will be applicable to all sections of the Proposed Development, includes:

- Where the relevant thresholds[80] are exceeded, an assessment will be provided as part of the EIA Report to include the likely number of construction traffic movements and the capacity of local roads to accommodate construction traffic, with reference to the potential effects of severance; fear and intimidation; accidents and safety; driver delay; pedestrian amenity; and pedestrian delay.
- Where thresholds for potential significant effects are not exceeded, no detailed assessment will be provided. However, an outline CTMP will be produced as part of the EIA Report, to be developed and adopted by the Principal Contractor as a Condition of Consent provided, along with a commitment to work with Transport Scotland and the local roads authorities in order to agree detailed traffic management proposals for implementation during the construction phase.
- Baseline traffic numbers will be obtained from Transport Scotland and the Department for Transport (DfT) open traffic count site. It is anticipated that this will need to be supplemented by additional count data on a selection of local roads, with this data captured via Automatic Traffic Counters installed for a seven day period. Accident data would be sourced from Crashmap.co.uk, an online accident review resource.
- The assessment would be completed with reference to the IEMA guidelines for the Environmental Assessment of Traffic and Movement, and other relevant guidelines and policy.

12.6 Issues to be Scoped Out

12.6.1 The potential for the Proposed Development to give rise to traffic impacts would be limited to the construction phase only. No impacts are anticipated during the operational phase as the Proposed Development would not generate any new traffic, apart from during infrequent maintenance activities. On this basis, operational traffic assessment is scoped out of the EIA in its entirety, in common with other similar developments.

[80] As noted in the IEMA Guidelines for the Environmental Assessment of Traffic and Movement (2023)

13. RECREATION AND TOURISM

13.1 Introduction

13.1.1 This Chapter of the Scoping Report provides a brief overview of the recreation and tourism baseline conditions, the potential effects associated with the Proposed Development and the proposed scope of assessment methodology to be considered in the EIA Report.

13.2 Baseline Conditions

13.2.1 The main settlements within the vicinity of the Proposed Development include Beauly, Kirkhill, Inverness, Elgin, Keith, Turriff, New Deer, Maud and Stuartfield. The Proposed Development runs over or proximal to the A833, A82, A9, A939, A940, A941, A95, A96, A97, A948 and the A952 among various B-roads and single lane tracks. Other smaller settlements, rural communities and clusters of properties are present along the Proposed Route.

13.2.2 There are a number of walking and cycling routes, many of which are noted as Core Paths by The Highland Council, Moray Council and Aberdeenshire Council, or identified as Rights of Way and Wider Path Network paths. The Proposed Development also crosses designated Long Distance Paths including The Great Glen Way, The Caledonia Way, Dava Way Great Trail, Speyside Way Great Trail as well as Formartine and Buchan Way (Great Trail)[81]. The Proposed Route is in the vicinity of the following National Cycle Network (NCN) routes: 78 from Campbeltown to Inverness, 1 from Dover to the north of Scotland and 7 from Sunderland and Inverness (part of the Coast to Coast route (C2C)[82]. The Loch Ness 360° is a walking, cycling, running and outdoor activity trail in the Scottish Highlands. The trail is located within the vicinity of the Proposed Development and loops the entire circumference of Loch Ness[83]. For the purpose of this report, these receptors have collectively been termed recreational routes.

13.2.3 There are also a number of promoted recreational road routes within Scotland, with three being in the vicinity of the Proposed Development. Highland Tourist Route stretches between Aberdeen and Inverness and is 116 miles (187 km) in length. The North Coast 500 is a 500 mile (805 km) long route that starts and finishes in Inverness. North East 250 is a circular touring route that starts in Ballindalloch and ends in Glenshee; it is 250 miles (402 km) in length[84].

13.2.4 Key visitor attractions and activities throughout the area include the main settlements noted above, as well as a variety of walks, other outdoor activities including, for example, fishing and stalking. There are also a number of cultural heritage and nature based attractions including the Culloden Battlefield and Visitor Centre. There are many lakes, lochs and waterways, including the River Isla, River Spey, Loch Dallas, Caledonian Canal and Loch Ness in the vicinity of the Proposed Development. Numerous distilleries are located within the area including Dunphail, Coleburn, Strathisla and Glendronach. There is also the Malt Whiskey Trail which encompasses a number of whisky distilleries[85]. Forestry and Land Scotland (FLS) open access land is also located within the area surrounding the Proposed Development.

13.2.5 Tourist accommodation is located in the vicinity of the Proposed Development and is, generally, centered around the main settlements.

13.3 Potential Effects

Recreation

13.3.1 The following aspects have been considered for the recreation assessment:

- The Proposed Development would require temporary and permanent land-take during construction and operation. This temporary and permanent land-take could lead to a complete or partial loss of a recreational asset and/or land associated with the recreational asset. For recreational routes, access may be temporarily

[81] Long Distance Walkers Association (2023) *Long Distance Paths* . Available at: https://ldwa.org.uk/ldp/members/search_by_path.php
[82] Sustrans (2023). *The National Cycle Network* . Available at: https://www.sustrans.org.uk/national-cycle-network
[83] Loch Ness 360◦ (2023). *Welcome to the Loch Ness 360° Trail.* Available at: https://lochness360.com/
[84] VisitScotland (2023). *Scotland's Road Trips.* Available at: https://www.visitscotland.com/travel-planning/getting-around/driving/route-planner/overview
[85] The Malt Whisky Trail (2023). *The Malt Whisky Trail.* Available at: https://maltwhiskytrail.com/

restricted in order to accommodate construction of the Proposed Development, which could lead to some recreational routes being temporarily diverted. In addition, some recreational routes may need to be permanently diverted. Proposed temporary and permanent recreational route diversions will be presented in the EIA Report. The Proposed Development could also have an adverse effect on amenity experienced by recreational users, of both recreational assets and recreational routes, during the construction and operational phases of the Proposed Development.

- There is also the potential for temporary adverse effects on access to recreational assets during the construction of the Proposed Development, as a result of increased traffic movements on the local road network as well as vehicular, pedestrian and cyclist diversions that could be implemented.
- During operation, land associated with recreational assets and/or recreational routes may be restricted around the towers or access roads for maintenance activities. However, this would be for a small area around the infrastructure and for a limited time and is not anticipated to lead to significant effects.
- During operation, there would be minimal traffic movements on the local road network as a result of maintenance activities. It is unlikely there would be vehicular, pedestrian and cyclist diversions associated with the maintenance activities. Therefore, significant effects are not anticipated.

Tourism

13.3.2 The following aspects have been considered for the tourism assessment:

- There is the potential for adverse effects on tourism during the construction and operation of the Proposed Development. The construction and operation of the Proposed Development could affect availability, accessibility and amenity of tourist attractions, including recreational assets and routes. Changes in availability would be due to a loss or partial loss of a resource.
- The construction of the Proposed Development could also affect the availability of tourist accommodation due to the influx of construction workers.
- The operation of the Proposed Development could also have an adverse effect on the tourism economy, however, due to the nature of the Proposed Development these effects are not anticipated to be significant. These effects will be highlighted within a separate socio-economic report that will accompany the Application.

13.4 Mitigation

13.4.1 An Outdoor Access Plan will be included within the CEMP and will demonstrate how continued access for recreational users along Core Paths, and other recreational routes in the area will be managed in a way that least affects their recreational users.

13.4.2 An Outline CEMP will also be prepared as part of the Application. The CEMP will provide a framework from which a detailed CEMP will be developed by the appointed Principal Contractor.

13.4.3 The CEMP would include the need for public notices to be issued before the construction works commence to inform recreational users of dates and durations of the works.

13.4.4 A Construction Accommodation Strategy will be developed as part of the Application. The Construction Accommodation Strategy will set out the approach that will be taken to accommodating construction workers along the length of the Proposed Development.

13.4.5 The recreation and tourism assessment considers other environmental topics including landscape and visual amenity, noise as well as traffic and transport. Therefore, the mitigation measures outlined in these chapters are also relevant for recreation and tourism.

13.4.6 The mitigation measures for recreation and tourism will be progressed and refined as part of the EIA.

13.5 Proposed Scope and Assessment Methodology

13.5.1 The recreation and tourism assessment will establish potential significant effects of the Proposed Development on recreation and tourism. There is no established guidance for conducting a recreation and tourism assessment as part

of the EIA process. The assessment methodology will be based upon professional judgement and drawn on Design Manual for Roads and Bridges (DMRB) LA 112 Population and Human Health[86].

Study Area

13.5.2 There are no recognised standards or methodologies for assessing recreation and tourism effects of OHLs. Therefore, the study areas have been defined based on professional judgement and using guidance available for other types of development i.e. DMRB LA 112 Population and Human Health. The study area for the assessment of recreation and tourist assets will be 500 m from the Proposed Alignment LOD and associated access tracks. The study area will be extended beyond 500 m at specific locations if deemed appropriate. For the assessment on tourist accommodation, the study area will be 500 m from the Proposed Alignment LOD and associated access tracks as well as settlements where construction workers are likely to reside.

Recreation

13.5.3 The EIA Report will include a qualitative assessment of the effect of the Proposed Development on recreational assets and land associated with recreational assets within the study area. The assessment will consider changes in availability, accessibility and amenity on these receptors. Changes in availability would be due to a loss or partial loss of a recreational asset and/or land associated with an asset. For the purposes of the assessment, the loss of a recreational asset and/or land associated with a recreational asset will be considered as a permanent, long-term construction effect within the EIA. Amenity is considered to be a combination of visual amenity, air quality and noise levels experienced by recreational users.

13.5.4 It is anticipated that the construction of the Proposed Development would lead to temporary and potentially permanent diversions of recreational routes. For the purposes of the assessment, any permanent diversion of recreational routes will be considered as a permanent, long term construction effect within the EIA. The assessment will consider changes to access, severance and diversion lengths for recreational routes during the construction phase of the Proposed Development. Loss of amenity for recreational routes will also be considered for both the construction and operational phases of the Proposed Development. As detailed above, amenity is considered to be a combination of visual amenity, air quality and noise levels experienced by recreational users.

13.5.5 The assessment will be informed by the landscape and visual, noise and traffic and transport assessments that will be undertaken for the Proposed Development.

Tourism

13.5.6 Key tourist attractions and activities (including recreational assets and routes) within the study area will be identified using publicly available sources. A qualitative assessment will be undertaken based on changes in availability, accessibility and amenity to tourist attractions/activities during the construction and operation of the Proposed Development. Changes in availability would be due to a loss or partial loss of a resource. For the purpose of this assessment, amenity is considered to be a combination of visual amenity, air quality and noise levels experienced by users of tourist attractions and activities. The assessment will be informed by the landscape and visual, noise and traffic and transport assessments that will be undertaken for the Proposed Development.

13.5.7 The construction of the Proposed Development could also affect the availability of tourist accommodation due to the influx of construction workers. A qualitative assessment will be undertaken considering the anticipated number of construction workers and where the construction workers are likely to reside. Tourist accommodation within the study area will be identified using publicly available sources.

Assessment Methodology

13.5.8 The assessment of significance will be based on the environmental value/sensitivity of a recreational receptor and the magnitude of change from baseline conditions.

[86] Highways England (now known as National Highways), Transport Scotland, Welsh Government and Department for Infrastructure (2020). Population and Human Health. Available at: https://www.standardsforhighways.co.uk/tses/attachments/1e13d6ac-755e-4d60-9735-f976bf64580a?inline=true

13.5.9 Recreational and tourist receptors will be assigned a value and/or sensitivity using the criteria set out in **Table 13-1** as a basis. The criteria have drawn on DMRB LA 112 Population and Human Health and have been adapted for the recreation and tourism assessment. Each receptor's value will be assigned taking account of professional judgement and past experience of similar schemes.

Table 13-1 – Recreation and Tourism Sensitivity Criteria

Sensitivity	Criteria
High	• Recreational and tourist assets and land associated with assets that are of national or international status and/or have high visitor numbers; • Tourist accommodation where no alternative in the local area is available; and • Recreational routes frequently used by walkers and cyclists for recreational and leisure purposes (e.g. national trails).
Medium	• Recreational and tourist assets and land associated with assets that are of regional status and/or have medium visitor numbers; • Tourist accommodation where limited alternatives are available in the local area; and • Recreational routes moderately used by walkers and cyclists for recreational and leisure purposes (e.g. regional trails).
Low	• Recreational and tourist assets and land associated with assets that are of local status and/or low visitor numbers; • Tourist accommodation where alternatives are available in the local area; and • Locally designated recreational routes for which alternative routes can be taken.
Negligible	• Recreational and tourist assets and land associated with assets that have very low visitor numbers; • Tourist accommodation where numerous alternatives are available in the local area; and • Recreational routes not/infrequently used by walkers and cyclists for recreational purposes.

13.5.10 The magnitude of change shall be reported in line with the criteria outlined in **Table 13-2** below. The criteria have drawn on DMRB LA 112 Population and Human Health. Each receptor's value will be assigned taking account of professional judgement and past experience of similar schemes. For tourist accommodation, the magnitude of change will be determined on a case-by-case basis taking into account the surrounding local context and anticipated duration of the impact. If the percentage of tourist accommodation that will become unavailable is not known, professional judgement will be used to determine the magnitude of impact.

Table 13-2 – Recreation and Tourism Magnitude of Impact Criteria

Magnitude of Impact	Criteria
Major	Recreation and tourism: • Loss of asset and/or quality and integrity of asset; severe damage to key characteristics, features or elements, e.g. direct acquisition and demolition of buildings and direct development of land to accommodate the Proposed Development. • Loss of use of 100% of tourist accommodation premise (due to leasing of tourist accommodation being required for construction workers). Recreational routes: • Permanent loss/severance of an existing recreational route used by walkers and cyclists.
Moderate	Recreation and tourism:

Magnitude of Impact	Criteria
	• Partial loss of/damage to key characteristics, features or elements, e.g. partial removal or substantial amendment to access or acquisition of land compromising viability of recreation asset. • Loss of use of 50% of tourist accommodation premise (due to leasing of tourist accommodation being required for construction workers). Recreational routes: • Disruption of a recreational route used by walkers and cyclists with large increase/decrease in journey length/time and/or large changes to amenity for recreational users.
Minor	Recreation and tourism: • A discernible change in attributes, quality or vulnerability; minor loss of, or alteration to, one (maybe more) key characteristics, features or elements, e.g. amendment to access or acquisition of land resulting in changes to operating conditions that do not compromise overall viability of recreation asset. • Loss of use of 25% of tourist accommodation premise (due to leasing of tourist accommodation being required for construction workers). Recreational routes: • Alteration of a recreational route used by walkers and cyclists but with minor increase in journey length/time and/or minor changes to amenity for recreational user.
Negligible	Recreation and tourism: • Very minor loss or detrimental alteration to one or more characteristics, features or elements, e.g. acquisition of non-operational land or buildings not directly affecting the viability of recreation asset. • Loss of use of less than 10% of tourist accommodation premise (due to leasing of tourist accommodation being required for construction workers). Recreational routes: • Very minor change to recreational route used by walkers and cyclists.

13.5.11 The overall significance of effects will be determined based on the matrix shown in **Table 13-3**. Effects that are classified as moderate or above are considered to be significant and are highlighted in bold. Effects classified as minor or below are considered to be not significant.

Table 13-3 – Recreation and Tourism Matrix of Significance

		Magnitude of impact			
		Major	Moderate	Minor	Negligible
Resource value and/or sensitivity	High	**Major**	**Major or Moderate**	**Moderate** or Minor	Minor
	Medium	**Major or Moderate**	**Moderate**	Minor	Minor or Neutral
	Low	**Moderate** or Minor	Minor	Minor or Neutral	Minor or Neutral
	Negligible	Minor	Minor or Neutral	Minor or Neutral	Neutral

13.6 Issues to be Scoped Out

13.6.1 The following aspects have been scoped out of the recreation assessment:

- During operation, land associated with recreational assets and/or recreational routes may be restricted around the towers or access roads for maintenance activities. However, this would be for a small area around the infrastructure and for a limited time and is not anticipated to lead to significant effects.
- During operation, there would be minimal traffic movements on the local road network as a result of maintenance activities. It is unlikely there would be vehicular, pedestrian and cyclist diversions associated with the maintenance activities. Therefore, significant effects are not anticipated.

13.6.2 The operation of the Proposed Development could also have an adverse effect on the tourism economy, however, due to the nature of the Proposed Development these effects are not anticipated to be significant. These effects will be highlighted within a separate socio-economic report that will accompany the Application.

14. NOISE AND VIBRATION

14.1 Introduction

14.1.1 This Chapter of the Scoping Report provides a brief overview of the noise and vibration baseline conditions, the potential effects associated with construction and operation of the Proposed Development and the proposed scope of assessment methodology to be considered in the EIA Report.

14.2 Baseline Conditions

14.2.1 The Proposed Route of the OHL is located within a predominantly rural area. The main settlements within the vicinity of the Proposed Route include Beauly, Inverness, Keith, Turriff and Peterhead. Smaller settlements, individual dwellings, and clusters of properties are also distributed along the length of the Proposed Route.

14.3 Potential Effects

14.3.1 At this preliminary stage, possible effects associated with construction and operation of the Proposed Development include:

- noise and vibration during the construction phase; and
- operational effects of noise from the OHL, including:
  - operational effects of noise from the 'corona discharge' during damp weather along the OHL;
  - operational effects of noise from potential 'aeolian noise' where wind passing over OHL components creates a tonal noise; and
  - noise from operational maintenance.

Construction Noise

14.3.2 There is the potential for construction noise and vibration impacts from static, quasi static and mobile plant items during construction activities including:

- establishment of temporary construction compounds, laydown areas and temporary and permanent access;
- delivery of components and materials to site, potentially including the use of helicopters;
- excavation and formation of tower foundations;
- steel lattice tower construction including the use of cranes;
- conductor stringing; and
- reinstatement.

Operational Noise

14.3.3 OHL noise is generally associated with a phenomenon known as "corona discharge". This is essentially a limited electrical breakdown of the air which, in the main, occurs during damp weather. Corona discharge will create a source of audible noise (a crackling sound occasionally accompanied by a low frequency hum in certain wet conditions). Power transmission line conductors are designed to minimise corona discharge, but this may be affected by minor surface irregularities caused by damage, insects, raindrops or pollution. The highest noise levels generated by an OHL usually occur during light rain when water droplets, collecting on the surface of the conductor, can initiate corona discharge. The number of droplets that collect, and hence the amount of noise, depends on the rate of rainfall.

14.3.4 Aeolian noise is caused by wind blowing through the conductors and/or tower structures. This type of noise is usually infrequent and depends on wind velocity and direction. Wind must blow steadily and perpendicular to the lines to set up an Aeolian vibration, which can produce resonance if the frequency of the vibration matches the natural frequency of the line. Dampeners can be attached to the lines to minimize Aeolian noise.

14.4 Mitigation

Mitigation during Construction

14.4.1 A Construction Noise Management Plan (CNMP) will be developed in consultation with the Highland Council, Moray Council and Aberdeenshire Council to ensure construction noise is controlled in accordance with the guidance and procedures outlined in BS-5228-1[87]. Procedures will include:

- Minimising the noise as much as is reasonably practicable at source;
- Attenuation of noise propagation;
- Carrying out identified high noise level activities at a time when they are least likely to cause a nuisance to residents; and
- Providing advance notice of unavoidable periods of high noise levels to residents.

Mitigation during Operation

14.4.2 Potential operational noise impacts have formed a key input into the conductor selection study, to ensure noise source levels from the conductors are as low as possible whilst still fulfilling the power transfer requirements of the OHL.

14.4.3 The routeing and alignment selection process for the Proposed Development has also enabled consideration of likely significant effects on noise sensitive receptors (NSRs) throughout the evolution of the project to date, with alignment options designed to ensure distances from NSRs are maximised as far as possible to reduce operational noise effects. Further assessment will continue throughout the alignment selection and EIA stages, and mitigation measures developed to minimise effects on NSRs where required.

14.4.4 To avoid potential aeolian generated noise, any components with a known history of being susceptible to such a phenomenon should be avoided. Otherwise, dampers can be used to reduce resonance.

14.5 Proposed Scope and Assessment Methodology

Background Noise Surveys

14.5.1 A survey of the background (LA90,T) ambient noise (LAeq,T), and 1/3rd octave band spectrum levels will be conducted to determine the existing noise level in the area and at any nearby NSRs likely to be affected by the noise in accordance with TGN(E)322[88]. To ensure that values are reliable and representative of the outdoor amenity of NSRs, attended spot measurements will be conducted in suitably dry conditions and very low wind.

14.5.2 NSRs are in this instance defined as residential properties within 200 m of the centreline of the Proposed Alignment[89]. Where the OHL meets properties in groups or close settlements, one location may be chosen as representative of several properties that would produce duplicate readings. The noise assessment conducted for these properties will have the highest noise impact from the Proposed Development, and therefore if the chosen properties meet noise criteria, then any property at greater distances will also pass the criteria.

Construction Noise Assessment

14.5.3 The assessment of construction noise will comply with the following standards and guidance.

British Standard 5228-1:2009 +A1:2014 (BS5228), Code of Practice for Noise and Vibration Control on Construction and Open Sites

14.5.4 Guidance on the prediction and assessment of noise and vibration from construction sites is provided in British Standard (BS) 5228 2009 +A1:2014 Code of Practice for Noise and Vibration Control on Construction and Open Sites – Part 1: Noise. BS5228-1 provides recommended limits for noise from construction sites.

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87 BSI (2009) BS 5228-1:2009 +A1:2014 (BS5228), Code of Practice for Noise and Vibration Control on Construction and Open Sites, BSI

88 National Grid (2021). Technical Guidance Note Report No. TGN(E)322, 2021. Operational Audible noise Assessment For Overhead Lines, National Grid

89 Initial noise screening calculations based on the conductor types under consideration indicate that noise impacts are not anticipated to occur beyond 200 m from the centreline of the OHL.

14.5.5 The construction noise impact assessment (CNIA) would be carried out according to the ABC method specified in Table E.1 of BS5228-1, in which noise sensitive receptors (NSRs) are classified in categories A, B or C according to their measured or estimated background noise level.

14.5.6 In line with best practice (BS 5228-1), a Construction Noise Management Plan (CNMP) will be developed by the Principal Contractor prior to starting construction works. The details of the CNMP will be agreed with the Highland Council, Moray Council, and Aberdeenshire Council and is expected to be secured by an appropriately worded planning condition.

Operational Noise Assessment

14.5.7 The assessment of operational noise will comply with the following standards and guidance.

Planning Advice Note (PAN) 1/2011: 'Planning and Noise'

14.5.8 Published in March 2011[90], this document provides advice on the role of the planning system in helping to prevent and limit adverse effects of noise (Scottish Government, 2011). Information and advice on noise assessment methods are provided in the accompanying Technical Advice Note (TAN): Assessment of Noise. Included within the PAN document and the accompanying TAN are details of the legislation, technical standards, and codes of practice for specific noise issues.

14.5.9 Neither PAN 1/2011 nor the associated TAN provides specific guidance on the assessment of noise from fixed plant, but the TAN includes an example assessment scenario for '*New noisy development (incl. commercial and recreation) affecting a noise sensitive building*', which is based on BS 4142:1997: Method for rating industrial noise affecting mixed residential and industrial areas. This British Standard has been replaced with BS 4142:2014: Methods for rating and assessing industrial and commercial sound.

British Standard 4142:2014+A1:2019: Methods for rating and assessing industrial and commercial sound (BS 4142)

14.5.10 British Standard 4142[91] describes methods for rating and assessing the following:

- sound from industrial and manufacturing processes;
- sound from fixed installations which comprise mechanical and electrical plant and equipment;
- sound from the loading and unloading of goods and materials at industrial and/or commercial premises; and
- sound from mobile plant and vehicles that is an intrinsic part of the overall sound emanating from premises or processes, such as that from forklift trucks, or that from train movements on or around an industrial and/or commercial site.

14.5.11 The methods use outdoor sound levels to assess the likely effects of sound on people who might be inside or outside a dwelling or premises used for residential purposes upon which sound is incident.

14.5.12 In accordance with the assessment methodology, the specific sound level (LAeq,T) of the noise source being assessed is corrected, by the application corrections for acoustic features, such as tonal qualities and/or distinct impulses, to give a "rating level" (LAr,Tr).The British Standard effectively compares and rates the difference between the rating level and the typical background sound level (LA90,T) in the absence of the noise source being assessed.

14.5.13 The British Standard advises that the time interval ('T') of the background sound measurement should be sufficient to obtain a representative or typical value of the background sound level at the time(s) when the noise source in question is likely to operate or is proposed to operate in the future.

14.5.14 Comparing the rating level with the background sound level, BS 4142 states:

- "*Typically, the greater this difference, the greater the magnitude of impact.*
- *a difference of around +10 dB or more is likely to be an indication of a significant adverse impact, depending on the context.*

[90] The Scottish Government (2011). Planning Advice Note, PAN 1/2011, Planning and Noise.
[91] BSI. (2014). BS 4142:2014, 2014. Methods for Rating and Assessing Industrial and Commercial Sound,

- *a difference of around +5 dB is likely to be an indication of an adverse impact, depending on the context.*
- *the lower the rating level is relative to the measured background sound level, the less likely it is that the specific sound source will have an adverse impact or a significant adverse impact. Where the rating level does not exceed the background sound level, this is an indication of the specific sound source having a low impact, depending on the context.*"

TGN(E)322 – Operational Audible Noise Assessment Process For Overhead Lines

14.5.15 The National Grid has derived a procedure[92] to assess the impact of OHL noise in both dry and rainy conditions. The guidance of the British Standard BS 4142: 2014 can also be used to assess the impact of the noise from a specific industrial source at NSRs.

14.5.16 The procedure requires a series of assessments are conducted in tiers. Tier 3 requires that the background noise (BGN) at NSRs within a set distance from the OHL (usually 200 m) be measured during quiet night times and in dry conditions with little wind. The nature of the ground surface around the sensitive receptors is noted, so that the contribution to BGN of the surface noise attributable to the rainfall can be derived from empirically derived curves (Miller curves). The logarithmic sum of the measured BGN and the empirically derived contribution for rainfall is adopted as the BGN level, in rainy conditions, against which to compare the predicted received noise from the OHL. Using the parameters provided in TGN(E)322 the likelihood of an adverse impact can be assessed.

14.5.17 The assessment procedure follows TGN(E)322, and will be conducted in the following stages:

- the outcome of the Tier 1 assessment will determine whether the 'worst case' wet noise impact is predicted to be acceptable, or whether further assessment is required.
- the outcome of the Tier 2 assessment will determine whether the combined wet and dry noise impact is acceptable, or whether further assessment is required.
- the outcome of the Tier 3 assessment will determine whether the noise impact is acceptable, whether the noise needs to be mitigated and minimised or whether the noise is unacceptable.

14.5.18 Noise limits (in line with best practice guidance) will be agreed with the Highland Council, Moray Council and Aberdeenshire Council. Appropriate mitigation measures will be implemented where required to ensure these limits will be met.

14.6 Issues to be Scoped Out

14.6.1 There are no known vibration (structural / ground borne) issues associated with the operation of the Proposed Development at nearby NSRs. It is therefore proposed that vibration is scoped of the EIA.

14.6.2 Any operational maintenance works required along the line will be short term and intermittent and are not anticipated to give rise to significant effects relating to noise and vibration. As such, this topic is proposed to be scoped out of the EIA.

[92] Technical Guidance Note Report No. TGN(E)322, 2021. Operational Audible noise Assessment For Overhead Lines, National Grid

15. OTHER ISSUES SCOPED OUT OF EIA

15.1 Introduction

15.1.1 This Chapter of the Scoping Report provides the rationale for excluding certain effects on specified environmental topics from the EIA. The following topics are included:

- Land Use;
- Air Quality and Climate Change;
- Material Assets and Waste;
- Major Accidents and Disasters;
- Electric and Magnetic Fields; and
- Radio and TV Interference.

15.2 Land Use

Baseline conditions

15.2.1 Land use across the Proposed Route comprises predominantly forestry/woodland and agriculture, with some areas of moorland, scattered properties (residential and commercial), hamlets, roads, railway and wind farms. The project does not interface with any areas allocated for future development as listed in the Local Development Plans for The Highland Council, Moray Council and Aberdeenshire Council.

15.2.2 Impacts on forestry are discussed in **Chapter 11: Forestry** and are not discussed further here.

Potential for significant effects

15.2.3 Potentially significant effects which can arise on land use from developments of this type include temporary or permanent loss of utilised land, including agricultural land; temporary or permanent severance and impact on the viability of existing activities; and impacts on land designated for future development.

15.2.4 Land use impacts associated with the Proposed Development are anticipated to be limited. 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 the use of a Construction Access Management Plan.

15.2.5 The permanent loss of land to tower locations and new access tracks would be managed through agreements with the relevant landowners and farmers and is not considered to result in a likely significant effect on land use during the operational lifetime of the Proposed Development.

15.2.6 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.

Issue Scoped Out

15.2.7 Regarding land use specifically, no likely significant effects are predicted as a result of the Proposed Development and therefore an assessment on land use (with the exception of forestry) is proposed to be scoped out of the EIA Report in its entirety.

15.3 Air Quality

Baseline conditions

15.3.1 Due to the largely rural nature of the Proposed Route, air quality pollutant levels are indicated to be low.

15.3.2 The Proposed Route does not pass through any Air Quality Management Areas.

Potential for Significant Effects

15.3.3 Impacts can arise on air quality from developments of this type due primarily to generation and dispersal of dust and airborne particulate matter and emissions from plant, construction traffic and construction activities. However, as construction works would be temporary and short term at any specific location, and given the relatively small amount of emissions generating plant or vehicles required, the effects would be localised, short term and intermittent, and not considered to be significant. Potential effects would further be minimised through the implementation of mitigation measures, in particular the project CEMP and relevant GEMPs.

Issues Scoped Out

15.3.4 No likely significant adverse effects are predicted as a result of the Proposed Development and therefore an assessment on air quality is proposed to be scoped out of the EIA Report in its entirety.

15.4 Climate Change

15.4.1 Climate change has been considered both in terms of life cycle/embodied carbon and land use change carbon.

Life cycle/embodied carbon

15.4.2 Carbon in materials and components for OHLs is acknowledged in NPF4 as requiring consideration for adverse climate effects. However, the carbon quantum embedded into materials and components associated with the infrastructure is not predicted to be significant in relation to the carbon saving, because of the carbon reduction targets the Proposed Development would facilitate at a national level. The priority is therefore to ensure that the carbon embodied in the Proposed Development would be minimised as far as possible (as NPF4 Policy 2a requires) through commitments in relation to activities such as re-use, recycling of materials, circular economy principles, supply chain procurement requirements in contracts and adoption of low carbon construction methodologies. This will also support demonstration of compliance with the principles of NPF4 Policy 12 (Zero Waste).

15.4.3 It is proposed that an assessment of life cycle/embodied carbon is scoped out of the EIA Report as it has been demonstrated through the Integrated impact assessment produced for NPF4 that "*the lifecycle greenhouse gas emissions assessment concludes this development will likely have an overall net positive impact on achieving national greenhouse gas emissions reduction targets*"[93]. This is because of the role that renewable energy, and the necessary transmission infrastructure, provides in meeting the national greenhouse gas emission reduction targets.

15.4.4 No likely significant adverse effects are predicted as a result of the Proposed Development and therefore an assessment on life cycle/embodied carbon is proposed to be scoped out of the EIA Report in its entirety.

Land use change carbon

15.4.5 Impacts from loss or damage to peatlands and/or from extensive loss of woodlands are also acknowledged in NPF4 climate change assessment as having some potential for adverse climate effects, although these were typically evaluated at the strategic level as being likely to be 'negligible'. While it is acknowledged that NPF4 Policy 5d(iii) indicates a requirement for an assessment of net climate effects, it also acknowledges the process that should be followed to avoid and reduce effects on peatland through design and by following the mitigation hierarchy.

15.4.6 In the context of EIA therefore, mitigation should be considered in determining whether the effects of OHLs on peatlands would be significant. These will include demonstration of the process to avoid peat through design and siting/alignment and (as the NatureScot peatland guidance identifies) securing the production of relevant plans such as CEMPs, Habitat Management Plans and SPMPs. Further compensatory measures such as woodland planting and/or peatland restoration also provide opportunities to create carbon sequestering habitats, and these will be

[93] Scottish Government (2022). National Planning Framework 4 Research Project: Lifecycle Greenhouse Gas Emissions of NPF4 Proposed National Developments Assessment Findings. Available at: https://www.gov.scot/binaries/content/documents/govscot/publications/impact-assessment/2022/11/national-planning-framework-4-lifecycle-greenhouse-gas-emissions-npf4-proposed-national-developments-assessment-findings/documents/national-planning-framework-4-research-project-lifecycle-greenhouse-gas-emissions-npf4-proposed-national-developments-assessment-findings/national-planning-framework-4-research-project-lifecycle-greenhouse-gas-emissions-npf4-proposed-national-developments-assessment-findings/govscot%3Adocument/national-planning-framework-4-research-project-lifecycle-greenhouse-gas-emissions-npf4-proposed-national-developments-assessment-findings.pdf

considered within the relevant technical chapters on Forestry and Water and Geological Environment where relevant.

15.4.7 Although the design process has sought to avoid peatland wherever possible, there are some small areas within the Proposed Route where there are nationally important carbon-rich soils, deep peat or priority peatland habitat. A peatland carbon emission assessment will therefore be undertaken in line with the Peatland Carbon Code[94] and the NPF4 Policy 5 to assess the potential effects of the Proposed Development through peatland disturbance. This assessment will utilise the peat depth and condition survey data (probing and coring) collected in accordance with Scottish Government Peat Survey guidance; further information is presented in Section 10 Water and Geological Environment.

15.5 Material Assets and Waste

Potential for Significant Effects

15.5.1 The Proposed Development would require material consumption for the conductors, insulators, other fittings, steel and foundation works, and access track construction. General construction waste from the compounds and sub-yards would be recycled where possible.

15.5.2 Considering the nature of the Proposed Development, material use and waste generation will be limited in type and quantity, and significant effects are not anticipated. The use of recycled materials where it is feasible to do so and minimisation of waste will be advocated and this will be included in the CEMP which would be produced and implemented by the Principal Contractor.

Issues Scoped Out

15.5.3 No significant effects are predicted as a result of the Proposed Development and therefore an assessment on material assets and waste is proposed to be scoped out of the EIA Report in its entirety.

15.6 Major Accidents and Disasters

Potential for Significant Effects

15.6.1 The potential for the risk of a major accident and disaster affecting the vulnerability of the OHL is 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.

Issues Scoped Out

15.6.2 No likely significant effects are predicted in relation to the vulnerability of the Proposed Development to major accidents and disasters, taking account of the existing SSE Group crisis management and continuity plans and therefore an assessment on this topic is proposed to be scoped out of the EIA Report in its entirety.

15.7 Electric and Magnetic Fields

Baseline conditions

15.7.1 Electromagnetic Fields (EMF) arise from electric charges. Transmission lines comply with the government policy of adopting the guidelines of the International Commission on Non-Ionising Radiation Protection (ICNIRP) on exposure to EMF. The Applicant ensures at all times that they comply with relevant legislation[95], which in turn is based on the advice of the UK Government's independent scientific advisers, the National Radiological Protection Board (NRPB) (now part of the Health Protection Agency), to ensure 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

[94] International Union for the Conservation of Nature (ICUN) (2023). Peatland Carbon Code. Available at: https://www.iucn-uk-peatlandprogramme.org/peatland-code-0

[95] Energy Networks Association. What are electromagnetic fields? Available at: http://www.energynetworks.org/electricity/she/emfs.html

limiting exposure are based on the best available scientific information. See Appendix A: Justification for Scoping Out EMF Assessments for Proposed 400 kV Overhead Lines for more detail.

Potential for Significant Effects

15.7.2 As EMF limits will be adhered to there is no potential for significant effects. An EMF compliance report will be produced by the Applicant to accompany the application for consent.

Issues Scoped Out

15.7.3 No likely significant effects are predicted as a result of the Proposed Development and therefore an assessment on EMF is proposed to be scoped out of the EIA Report in its entirety.

15.8 Radio and TV interference

15.8.1 At sufficiently high voltages and in particularly adverse weather, radio interference may occur due to corona, a phenomenon which causes the air surrounding conductors to become ionized, resulting in the conductors partially discharging. This only affects longwave (LW) and medium wave (MW) signals, which carry Amplitude Modulation (AM) radio.

15.8.2 Corona discharge is usually an intermittent phenomenon and is associated with either a faulty electrical connection or a faulty component. It is rarely found on steel-structure lines, as hardware tends to remain tightly fastened. It is not considered a source of long-term annoyance as the equipment is built and maintained to high standards and any such discharge would be the subject of remedial action.

15.8.3 LW and MW interference is very common and can occur for a wide variety of reasons[96] including weather due to differences in atmosphere, electric motors within common household appliances, light-emitting diode (LED) lights, street lighting and passing traffic. Under certain weather conditions, there are likely to be cases of limited AM radio interference at properties in close proximity to the OHL.

15.8.4 The Radio and Television Investigation Service (RTIS) in the regulatory body The Office of Communications (Ofcom) undertake investigations into complaints of radio and television interference of all kinds and from all sources. Published information[97, 98] indicates few cases of interference attributable to OHLs of 100 kV and over, and the number of complaints has fallen over recent years.

Potential for Significant Effects

15.8.5 The most likely impacts caused by the Proposed Development would be upon LW and MW signals which carry AM radio. AM is the oldest radio broadcasting system and over the years the number of radio stations broadcasting on AM is reducing, as they move to more reliable, higher-quality FM or digital platforms and there are now only a limited number of radio stations still operating on AM. The Proposed Development is not considered to cause interference to Television (TV), Frequency Modulation (FM) or Digital Audio Broadcasting (DAB) signals.

15.8.6 Interference to AM signals is already very common from a variety of sources and it is considered that the Proposed Development would not cause a significant effect to AM interference. Any complaints by nearby residents raised to Ofcom or RTIS and found to be attributable to the Proposed Development would be appropriately dealt with by the Applicant on a case-by-case basis. It is proposed to scope out further assessment of radio and TV interference.

Issues Scoped Out

15.8.7 No likely significant effects are predicted as a result of the Proposed Development and therefore an assessment on Radio and TV interference is proposed to be scoped out of the EIA Report in its entirety.

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[96] RTIS. Troubleshooting interference to AM radio. Available at: https://www.radioandtvhelp.co.uk/help-guides/radio/troubleshooting-interference-to-am-radio.
[97] Ofcom. TV or radio interference problems. Available at: https://www.ofcom.org.uk/tv-radio-and-on-demand/how-to-report-a-complaint/tv-or-radio-interference-or-reception-problems
[98] RTIS. Radio and Television Investigation Service. Available at: https://www.radioandtvhelp.co.uk/what-are-you-having-problems-with.

15.9 Population and Human Health

Baseline Conditions

15.9.1 The Proposed Route predominantly passes through a rural to semi-rural landscape including some hamlets and scattered residential properties.

Potential for Significant Effects

15.9.2 The impacts on population and human health for a development of this nature and scale are limited and comprise a composite of the effects of other topics such as noise, air quality, hydrology (private water supplies), recreation and EMFs, which are considered separately within this report.

15.9.3 Socio-economic factors will be considered in a separate Socio-economic report which will accompany the application.

Issues Scoped Out

15.9.4 The topics which collectively comprise the topic of Population and Human Health are dealt with separately and therefore a standalone assessment of Population and Human Health has been scoped out. However, the cumulative impact of effects from different topics on a common receptor, in this instance local residents, will be considered within the EIA Report under the cumulative effects section.

15.10 Socio-economics

Issues Scoped Out

15.10.1 It is proposed that a Socio-economic Assessment is scoped out of the EIA Report as the project is expected to provide substantive support to the economy of Scotland in terms of direct and indirect employment and business investment, with wider economic benefits, including the facilitation that the project provides to large scale deployment of renewable generation in the North of Scotland[99]. This is supported by its status as a National Development 3 (ND3) "*Strategic Renewable Electricity Generation and Transmission Infrastructure*" in NPF4.

15.10.2 The NPF4 adds that: "*Their designation means that the principle for development does not need to be agreed in later consenting processes, providing more certainty for communities, businesses and investors*". It is on this basis that the Applicant is scoping out socio-economic assessment from the EIA as the Proposed Development falls within the ambit of development supported by established national policy.

15.10.3 A stand-alone report will be provided to accompany the EIA Report as part of the application to provide information on this topic to be considered in relation to wider policy, as part of the determination process.

[99] Scottish Government (2021). Part 2 – National Developments - Scotland 2045 - fourth National Planning Framework - draft: consultation. Available at: https://www.gov.scot/publications/scotland-2045-fourth-national-planning-framework-draft/pages/4/

16. NEXT STEPS

16.1 Inviting Comments

16.1.1 SSEN Transmission 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?

16.1.2 All responses should be addressed to: Econsents_Admin@gov.scot

OR

Energy Consents Unit
Scottish Government
4th Floor
5 Atlantic Quay
150 Broomielaw
Glasgow
G2 8LU

16.1.3 When submitting a response to the Scoping Report, the Applicant would be grateful if you could also send a copy of your response to: heather.gray@sse.com

OR

For the Attention of Heather Gray
SSEN Transmission
Grampian House
200 Dunkeld Road
Perth

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

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

APPENDIX A: Justification for Scoping Out EMF Assessments for Proposed 400 kV Overhead Lines

Introduction

1. The information provided in this Appendix has been included in this Scoping Report for the purpose of explaining the basis upon which the Applicant proposes to scope out electric and magnetic fields (EMF) from the EIA Report. The justification for scoping out EMF as a topic for assessment of impacts is based on calculated exposure limits which are known to be compliant with and below national and international standards. It is concluding that EMFs are not likely to have a significant effect and as a result scoped out of the EIA.

2. In addition, project specific EMF compliance reports will be produced by the Applicant to accompany the application for consent for the Proposed Development under section 37 of the Electricity Act 1989.

Guidelines for Public Exposure

3. To prevent known effects of EMFs on health, the International Commission on Non-Ionizing Radiation Protection (ICNIRP) developed health protection guidelines in 1998 for both public and occupational exposure to time-varying electric, magnetic and electromagnetic fields with a frequency of up to 300 GHz.

4. In March 2004, the UK adopted the ICNIRP 1998 guidelines on the advice of the National Radiological Protection Board (now part of the National Institute for Health Protection's Centre for Radiation, Chemical and Environmental Hazards (NIHP CRCE)). These guidelines set conservative exposure levels for the public to EMFs, and they are endorsed by the World Health Organisation and the UK Government.

5. The NIHP CRCE keeps under review emerging scientific research and/or studies that may link EMF exposure with various health problems and provides advice to the Department of Health and Social Care on the possible need for introducing further precautionary measures.

6. A voluntary Code of Practice was developed by the Government and published in 2012, which is entitled "Power Lines: Demonstrating compliance with EMF public exposure guidelines", for the purpose of implementing Government's policy to comply with ICNIRP Guidelines on exposure to EMFs[100]. The voluntary Code of Practice has been agreed by the Department of Energy and Climate Change (now part of the Department for Energy Security and Net Zero), the Department of Health, the Energy Networks Association (of which SSEN Transmission is a member company), the devolved administrations for Wales, Scotland and Northern Ireland, and the Health and Safety Executive. The voluntary Code of Practice remains in force and applies in Scotland and is hereafter referred to as "the Code of Practice." It sets out what will be required to demonstrate compliance with the exposure guidelines in respect of sources of EMFs within the electricity system, including high-voltage double circuit OHLs. The equipment included are OHLs and underground cables that operate at voltages of 275 kV or 400 kV, and associated substations.

Relevant National Planning Policy

7. The UK Government's latest policy statement on EMFs is contained in the National Policy Statement for Electricity Networks Infrastructure (NPS EN-5)[101], which was re-issued in November 2023 and came into force on 17 January 2024. This latest policy statement is in line with current UK guidance on EMFs, which in turn is informed by relevant international guidance; and which is considered appropriate by the UK Government and their public health experts as previously referenced.

[100] ICNIRP (1998) – Guidelines for limiting exposure to time-varying electric, magnetic and electromagnetic fields (up to 300 GHz). Available at: https://www.icnirp.org/cms/upload/publications/ICNIRPemfgdl.pdf

[101] UK Government Department for Energy Security & Net Zero (2023) National Policy Statement EN-5 (NPS EN-5). Available at: https://assets.publishing.service.gov.uk/media/64252f852fa848000cec0f53/NPS_EN-5.pdf

8. NPS EN-5 states at paragraph 2.9.51 that: *"The levels of EMFs produced by power lines in normal operation are usually considerably lower than the ICNIRP 1998 reference levels"*. The Applicant is also advised to consider the factors set out in paragraph 2.10.11 of the NPS, and in respect of which the relevant factors are currently:

   a) compliance with the measures specified in regulations 17 and 18 of the Electricity Safety, Quality and Continuity 2002 Regulations[102]; and

   b) that optimal phasing of high voltage OHLs is introduced wherever possible and practicable in accordance with the companion Code of Practice on optimal phasing entitled "Optimum phasing of high- voltage double-circuit headlines," as updated in March 2012 ("the Phasing Code of Practice").

   On that basis, in paragraph 2.10.12 it is provided that: "*Where it can be shown that the line will comply with the current public exposure guidelines and the policy on phasing, no further mitigation should be necessary*."

9. Whilst the determination of applications for statutory consent for the installation and operation of OHLs is devolved to Scottish Ministers, as noted in paragraph 1.4.3 of the NPS, aspects of NPS EN-5 are a relevant consideration for Scottish Ministers to take into account in decision-making. SSEN Transmission will evidence through a project specific compliance report that the proposed design complies with the guidelines as set out in the Code of Practice and paragraph 2.10.11 of NPS EN-5. The report will include the measures that adhere to recommendations and guidance on ground clearance requirements and ensuring optimum phasing of high voltage double-circuit OHLs.

Compliance Reports

10. SSEN Transmission designs all new equipment to comply with the Government's guidelines as set out in the Code of Practice. The approach to design also takes account of statutory requirements in relation to the minimum height of OHLs and ground clearance, and, position, insulation, and protection of OHLs to ensure compliance with the Electricity Safety, Quality and Continuity Regulations 2002103. In addition, it takes account of the guidelines contained in the companion Phasing Code of Practice[104].

11. This design approach described in the parameters of measurement which will be set out in the Compliance Report will demonstrate EMFs are below the ICNIRP guideline levels. Table 1 below sets out in summary form the exposure limits in relation to the proposed OHL design. In addition to the above over-arching analysis, project specific compliance reports will accompany the application for consent for the Proposed Development under section 37 of the Electricity Act 1989. The compliance report will provide detailed calculations and measurements that will underpin evidence of compliance with the ICNIRP guideline levels for exposure levels for all fields at a project level.

Table 4: Compliance Parameters for AS4 Tower Design (with Triple Araucaria at 500mm spacing)

Description	Magnetic Field (under the line)	Electric Field (under the line)
DESIGN: 400kV Double Circuit OHL, AS4 Tower Design (*Triple Araucaria at 500mm spacing*) 9 m conductor ground clearance 5 kA continuous current per circuit Transposed phasing	89.55 µT	8.22 kV/m
UK Exposure Limits as per ICNIRP Guidelines (1998)	360 µT	9 kV/m
Conclusion	**COMPLIANT**	**COMPLIANT**

[102] UK Government (2002). The Electricity Safety, Quality and Continuity Regulations 2002. UK Statutory Instruments2002 No. 2665 PART V Regulation 17 & 18 Available at:: https://www.legislation.gov.uk/uksi/2002/2665/regulation/17

[103] UK Government (2002). Electricity Safety, Quality and Continuity Regulations 2002. Available at: https://www.legislation.gov.uk/uksi/2002/2665/contents/made

[104] Optimum Phasing of high voltage double-circuit Power Lines a Voluntary Code of Practice as updated in March 2012. This document replaces "Optimum Phasing of high voltage double-circuit Power Lines: A voluntary Code of Practice" published by DECC in February 2011

12. The calculations within the Compliance Report will be based on the Code of Practice. Calculations performed in accordance with the following are acceptable evidence of field levels:
    - for linear sources such as OHLs and underground cables, are based on the infinite-straight-line approximation;
    - are of the unperturbed field;
    - take account of the correct conductor(s) number, type, and size;
    - ignore zero-sequence and negative-sequence currents, and voltages and currents induced in the sheath, ground, or earth wire; and
    - for electric fields, treat the ground as a perfect conductor.

13. In addition, the report will:
    - take account of the basic tower geometry for the design of line in question but ignore variations in conductor spacing at angle towers.

14. More detailed evidence will also include:
    - calculations based on the actual conductor geometry rather than the infinite straight-line approximation; and
    - calculations taking account of perturbations to the electric field from conducting objects.

15. For the Proposed Development, technical evidence of compliance with EMF exposure guidelines defined in a statement with supporting calculations will confirm compliance with the Code of Practice. Specifically, a supporting compliance report will provide a calculation from the technical measurement of the maximum fields (i.e. directly under the line) demonstrating that where this maximum value is less than the ICNIRP guideline levels, all fields and exposures from that source will be compliant.

Additional References and Further Information

The full suite of relevant source information on EMFs used to inform this position statement including:

i. *www.emfs.info – National Grid information site on EMFs*
ii. *Energy Networks Association (2017) – Electric and Magnetic Fields: The Facts. Available to download from http://www.emfs.info/wp-content/uploads/2017/09/EMF_The_Facts_250917.pdf*
iii. *Electricity Safety, Quality and Continuity Regulations 2002. Downloaded at The Electricity Safety, Quality and Continuity Regulations 2002 (legislation.gov.uk)*
iv. *Optimum Phasing of high voltage double-circuit Power Lines a Voluntary Code of Practice This document replaces "Optimum Phasing of high voltage double-circuit Power Lines: A voluntary Code of Practice" published by DECC in February 2011*
v. *Department of Energy and Climate Change (DECC, 2012) – Power Lines: Demonstrating compliance with EMF public exposure guidelines – a voluntary Code of Practice. Available to download from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/48308/1256-code-practice-emf-public-exp-guidelines.pdf*
vi. *ICNIRP (1998) – Guidelines for limiting exposure to time-varying electric, magnetic and electromagnetic fields (up to 300 GHz). Available to download from: https://www.icnirp.org/cms/upload/publications/ICNIRPemfgdl.pdf*
vii. *UK Government (2016) - The Control of Electromagnetic Fields at Work Regulations 2016. Available to download from: The Control of Electromagnetic Fields at Work Regulations 2016 (legislation.gov.uk)*
viii. *UK Government Department for Energy Security & Net Zero (2023) National Policy Statement EN-5 (NPS EN-5). Available to download from: Electricity Networks National Policy Statement - EN-5 (publishing.service.gov.uk)*

Date Saved: 1/30/2024

Document Path: \\uk.wspgroup.com\Central Data\Projects\70092xx\70092380 - Beauly-Blackhillock-Peterhead 400kV OHL\05 Drawings\GIS\Mxd\EIA Scoping\Figure 1 - Site Location Plan.mxd

Legend

- Local Authority Break
- Proposed Substation Site

Proposed Route

- Section 1 – Highland
- Section 2 – Moray
- Section 3 – Aberdeenshire

0 10 20
Km

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project:
Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

Title
Figure 1 – Site Location Plan

Date: 30/01/2024 Scale: 575,000 @ A3
Drawn: MAL Checked: IM Approved: LW
Drawing Number: B2P-WSP-DA-70092380-045

Date Saved: 6/20/2024

Document Path: \\uk.wspgroup.com\Central Data\Projects\70092xx\70092380 - Beauly-Blackhillock-Peterhead 400kV OHL\05 Drawings\GIS\Mxd\04 EIA Scoping\Figure 2 - Proposed Route Area with Environmental Constraints_20240619.mxd

Beauly (Fanellan)

Beaufort Castle

Moniack Gorge

Moniack Gorge

Loch Battan

Dochfour

Aldourie Castle

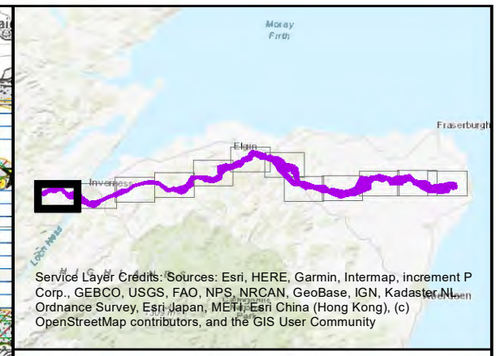
Moray Firth

Moray Firth

Beauly Firth

Inner Moray Firth

Inner Moray Firth



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Legend

- Proposed Substation Site

Proposed Route

- Section 1 – Highland
- Removal of Existing 132 kV OHL from Beauly to Knocknagael

Constraints

- Listed Building Grade A
- Listed Building Grade B
- Listed Building Grade C
- Long Distance Path
- Existing Transmission Overhead Line
- Important Bird
- Special Protection Area
- Ramsar Site – Wetland of International Importance
- Special Area of Conservation
- Sites of Special Scientific Interest (SSSI)
- Wildcat Priority
- Garden and Designed Landscape
- Scheduled Monument Point
- Scheduled Monument Area
- Conservation
- Special Landscape
- Geological Conservation Review Site
- Nationally important peatland likely to be of high conservation value

0 1 2

Km

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

Title: Figure 2 – Proposed Route with Environmental Constraints Page 1 of 12

Date: 20/06/2024 Scale: 50,000 @ A3

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Drawing Number: B2P-WSP-DA-70092380-046

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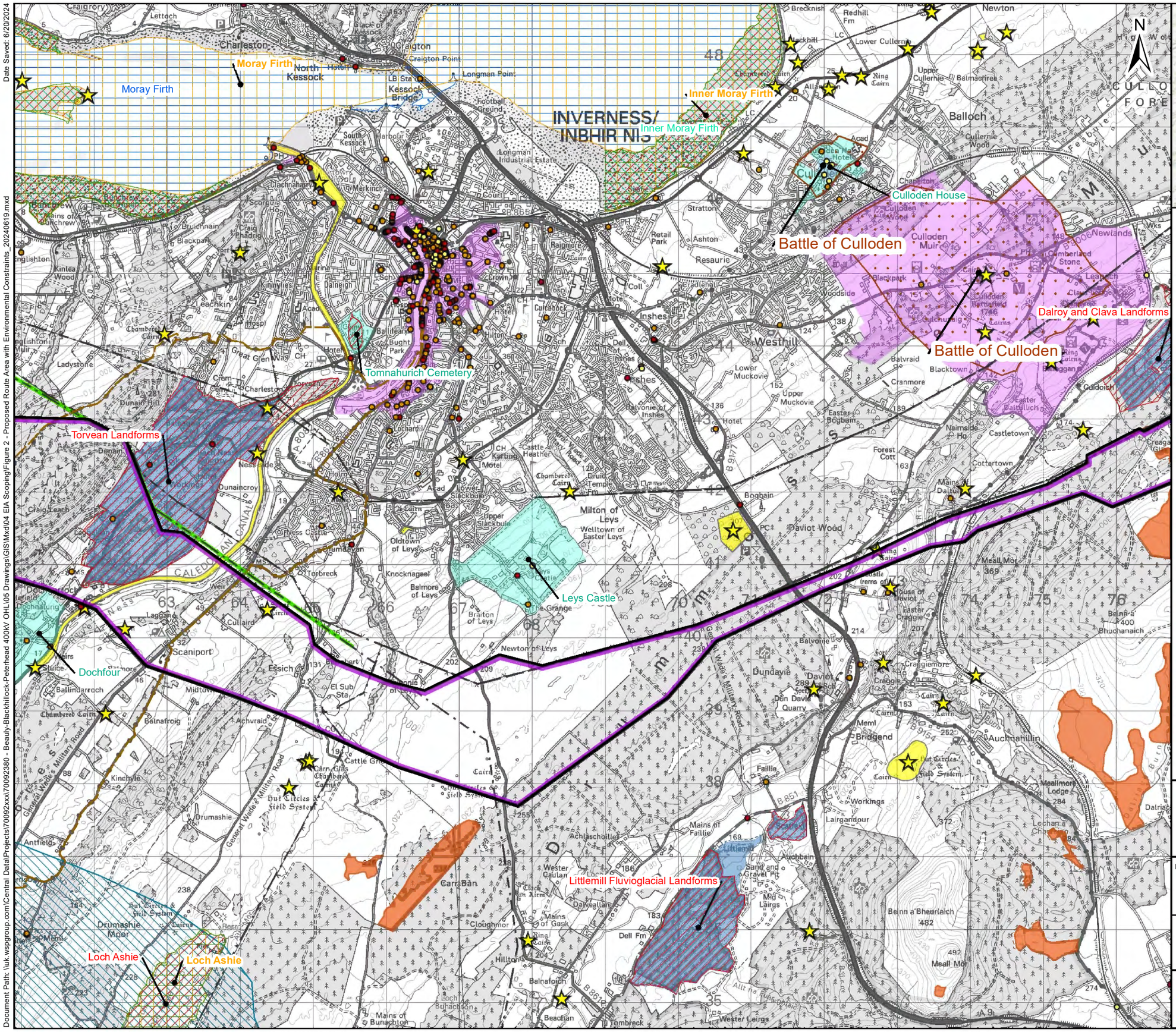

Legend

Proposed Route
- Section 1 – Highland
- Removal of Existing 132 kV OHL from Beauly to Knocknagael

Constraints
- Listed Building Grade A
- Listed Building Grade B
- Listed Building Grade C
- Long Distance Path
- Existing Transmission Overhead Line
- Important Bird
- Special Protection Area
- Ramsar Site – Wetland of International Importance
- Special Area of Conservation
- Sites of Special Scientific Interest (SSSI)
- Battleground
- Garden and Designed Landscape
- Scheduled Monument Point
- Scheduled Monument Area
- Conservation
- Special Landscape
- Geological Conservation Review Site
- Nationally important peatland likely to be of high conservation value

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

Title: Figure 2 – Proposed Route with Environmental Constraints Page 2 of 12

Date: 20/06/2024 Scale: 50,000 @ A3
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Cawdor Wood

Cawdor Wood

Cawdor Castle

Dalcross Castle

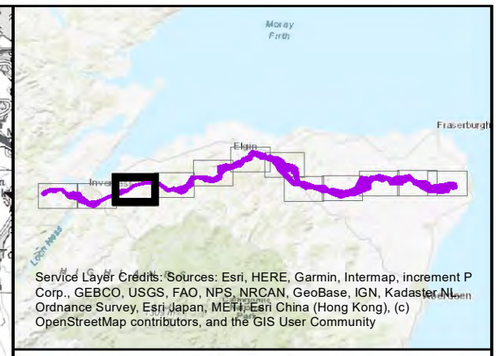
Muckle Burn, Clunas

Lava Landforms

Carn nan Tri-tighearnan

Carn nan Tri-tighearnan

Allt a' Choire



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Legend

Proposed Route

- Section 1 – Highland

Constraints

- Listed Building Grade A
- Listed Building Grade B
- Listed Building Grade C
- Existing Transmission Overhead Line
- Special Area of Conservation
- Sites of Special Scientific Interest (SSSI)
- Battleground
- Garden and Designed Landscape
- Scheduled Monument Point
- Scheduled Monument Area
- Conservation
- Special Landscape
- Geological Conservation Review Site
- Nationally important peatland likely to be of high conservation value

0 1 2 Km

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

Title: Figure 2 – Proposed Route with Environmental Constraints Page 3 of 12

Date: 20/06/2024 Scale: 50,000 @ A3

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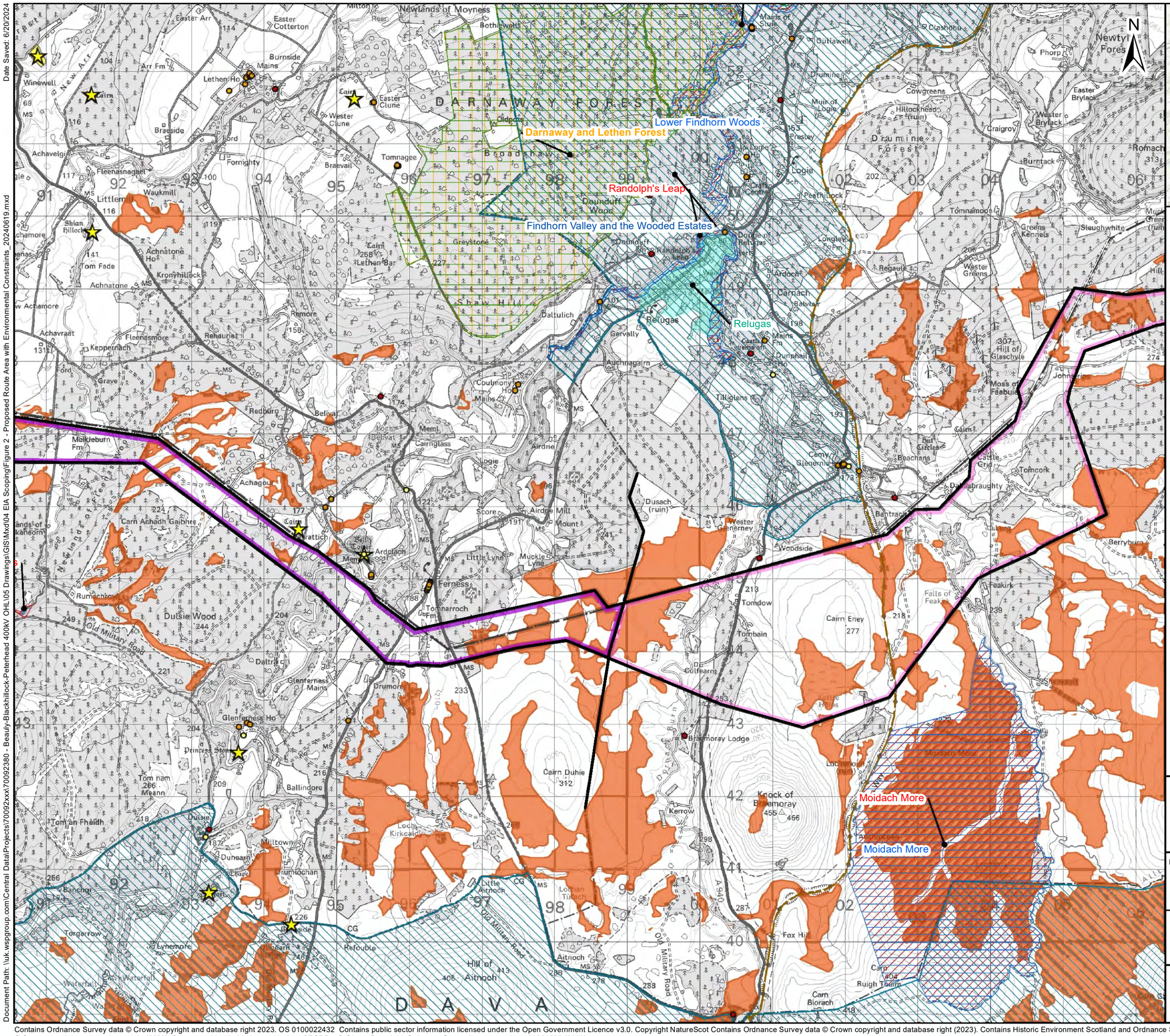

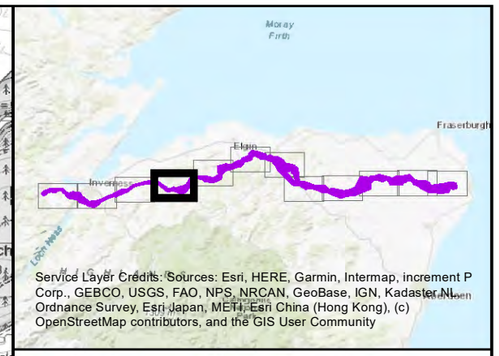

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Legend

- Local Authority Break

Proposed Route

- Section 1 – Highland
- Section 2 – Moray

Constraints

- Listed Building Grade
- Listed Building Grade B
- Listed Building Grade C
- Long Distance Path
- Existing Transmission Overhead
- Important Bird
- Special Protection Area
- Special Area of Conservation
- Sites of Special Scientific Interest (SSSI)
- Garden and Designed Landscape
- Scheduled Monument Point
- Scheduled Monument Area
- Special Landscape
- Geological Conservation Review Site
- Nationally important peatland likely to be of high conservation value

Client: Scottish & Southern Electricity Networks TRANSMISSION

Project: Beauly to Blackhillock to New Deer to Peterhead 400 kV Connection

Title: Figure 2 – Proposed Route with Environmental Constraints Page 4 of 12

Date: 20/06/2024 Scale: 50,000 @ A3

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