

APPENDIX 4.2: SCREENING REQUEST AND PROPOSED SCOPE OF ENVIRONMENTAL APPRAISAL – JUNE 2023

Melgarve Cluster Project

Electricity Act (Environmental Impact Assessment) (Scotland) Regulations 2017

Screening Request and Proposed Scope of Environmental Appraisal

June 2023



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GLOSSARY

| Term | Definition |
|---------------------------------------|--|
| Alignment | A centre line of an overhead line OHL, 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. |
| Ancient Woodland Inventory (AWI) | The Ancient Woodland Inventory (AWI) is a provisional guide to the location of Ancient Woodland. It contains three main categories of woodland, all of which are likely to be of value for their biodiversity and cultural value by virtue of their antiquity: Ancient Woodland (1a and 2a); Long-established woodlands of plantation origin (LEPO) (1b and 2b); and other woodlands on 'Roy' woodland sites (3). |
| Biodiversity Net Gain (BNG) | A process intended to leave nature in a better state than it started using good practice principles established by the Business and Biodiversity Offset Programme (BBOP) and organisations including CIRIA, CIEEM and IEMA. |
| 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 and, normally, with the objective of influencing decisions, policies or programmes of action. |
| Corridor | A linear area which allows a continuous connection between the defined connection points. The Corridor may vary in width along its length; in unconstrained areas it may be many kilometres wide. |
| CNP | Cairngorm National Park |
| Environmental Appraisal (EA) | Environmental Appraisals are carried out when a proposed development may give rise to some environmental effects. When a formal EIA is not required for a project, an EA can be undertaken, analysing a number of specialist environmental studies. |
| 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. |
| FWPM | Freshwater pearl mussel (<i>Margaritifera margaritifera</i>) |
| Habitat | Term most accurately meaning the place in which a species lives, but also used to describe plant communities or agglomerations of plant communities. |
| HES | Historic Environment Scotland |
| HRA | Habitat Regulations Appraisal (HRA) under 2017 Habitat & Species Regulations. |
| Kilovolt (kV) | One thousand volts. |
| Listed Building | Building included on the list of buildings of special architectural or historic interest and afforded statutory protection under the 'Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997' and other planning legislation. Classified categories A – C(s). |

| Term | Definition |
|---|---|
| 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. |
| 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. |
| 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. |
| 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. |
| SEPA | Scottish Environment Protection Agency |
| 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 structures. |
| Special Area of Conservation (SAC) | An area designated under the EC Habitats Directive to ensure that rare, endangered or vulnerable habitats or species of community interest are either maintained at or restored to a favourable conservation status. |
| Special Landscape Area (SLA) | Landscapes designated by The Highland Council which are considered to be of regional/local importance for their scenic qualities. |
| Special Landscape Quality (SLQ) | A key landscape characteristic identified for the Cairngorm National Park or Wild Land Areas identified by NatureScot. |
| Stakeholders | Organisations and individuals who can affect or are affected by SSEN Transmission works. |
| THC | The Highland Council |
| The National Grid | The electricity transmission network in the Great Britain. |
| Underground Cable (UGC) | 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 a landowner upon whose land an overhead line or underground cable is to be constructed and SSEN Transmission. |
| WLA | Wild Land Area as identified by NatureScot |
| Zone of Theoretical Visibility (ZTV) | The computer-generated theoretical visibility of an object in the landscape |

EXECUTIVE SUMMARY

This Screening Request and Proposed Scope of Environmental Appraisal has been prepared by ASH design+assessment Limited ("ASH") on behalf of Scottish Hydro Electric Transmission plc ("the Applicant") who, operating and known as Scottish and Southern Electricity Networks Transmission ("SSEN Transmission"), own, operate, and develop the high voltage electricity transmission system in the north of Scotland and remote islands.

The Applicant is proposing to submit an application under Section 37 of the Electricity Act 1989 for consent to construct and operate a new 132 kV overhead line (OHL) to connect the proposed Cloiche and Dell Wind Farms to the electricity transmission network at Melgarve substation.

A combination of underground cable (UGC) and overhead line (OHL) is proposed to complete the connection, with the transition between the two being achieved by two cable sealing end compounds. The UGC elements would be classed as permitted development under Class 40 1(a) of The Town and Country Planning (General Permitted Development) (Scotland) Order 1992.

The project is known as the Melgarve Cluster Project and is referred to in this report as the "Proposed Development".

The principle function of this report is a request for Scottish Ministers to adopt a Screening Opinion under the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (the EIA Regulations) to determine whether the elements of the Proposed Development seeking Section 37 and deemed planning permission is, or is not, EIA Development in the context of the EIA Regulations. The Applicant believes that the Proposed Development **is unlikely to give rise to significant residual environmental effects** and that, accordingly, would not be considered EIA Development.

If the Scottish Ministers agree with this conclusion, it is proposed by the Applicant that a voluntary Environmental Appraisal (EA) detailing the results of surveys, and any appropriate mitigation, would accompany the Section 37 application. The proposed scope of the EA is set out within this report.

The Applicant would welcome comment from stakeholders on the proposed scope of the EA, and the following questions:

- What environmental information do you hold or are aware of that will assist in the environmental appraisal work described?
- 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 should be directed to the ECU. When submitting a response, the Applicant would be grateful if you could also email a copy of your response to Teresa Jackson at: teresa.jackson@sse.com, or send it to the address below:

For the Attention of Teresa Jackson
SSEN Transmission
Inveralmond House
200 Dunkeld Road
Perth, PH1 3AQ

1. INTRODUCTION

1.1 Overview

- 1.1.1 This Screening Request and Proposed Scope of Environmental Appraisal has been prepared by ASH design+assessment Limited ("ASH") on behalf of Scottish Hydro Electric Transmission plc ("the Applicant") who, operating and known as Scottish and Southern Electricity Networks Transmission ("SSEN Transmission"), own, operate, and develop the high voltage electricity transmission system in the north of Scotland and remote islands.
- 1.1.2 This report acts as a formal request for Scottish Ministers to adopt a Screening Opinion under the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (the EIA Regulations) to determine whether the elements of the Proposed Development seeking Section 37 and deemed planning consent is, or is not, EIA Development in the context of the EIA Regulations. This report also sets out the proposed scope of environmental assessment work to inform the evolving design and support a future application.

1.2 Background to the Proposed Development

- 1.2.1 SSEN Transmission has a statutory duty under Schedule 9 of the Electricity Act 1989 to develop and maintain an efficient, co-ordinated and economical transmission system in its licenced areas. SSEN Transmission has obligations to offer non-discriminatory terms for connection to the transmission system.
- 1.2.2 The proposed Cloiche Wind Farm, consisting of up to 29 turbines, and the proposed Dell Wind Farm, consisting of up to 10 turbines, both require a new 132 kV single circuit connection to facilitate a grid connection to the electricity transmission network at Melgarve substation, in accordance with agreements between SSEN Transmission, National Grid Electricity System Operator (as operator of the National Grid), and the wind farm developers. It is proposed that this would be achieved via a combination of underground cable (UGC) and overhead line (OHL), to account for environmental and technical constraints. The overall connection project is known as the Melgarve Cluster Project (also referred to herein as the "Proposed Development").

Routeing Process

- 1.2.3 The Proposed Development has been subject to a routeing process in which alternative routes and design solutions for the proposed connection were compared to find the best option based on the most appropriate balance between environmental, engineering and cost factors.
- 1.2.4 Following this, a study of alignment options within the chosen route was carried out, prior to selecting a proposed alignment and design solution to take forward for section 37 consent (that chosen route being the Proposed Development).
- 1.2.5 Section 1.5 provides an overview of the pre-application consultation carried out with statutory consultees and members of the public during the routeing and alignment process.

1.3 Legislative and Statutory Context

- 1.3.1 Consent for the OHL elements of the project is sought from Scottish Ministers under section 37 of the Electricity Act (1989). The Electricity Act 1989 (as amended) is the primary legislation governing the electricity supply industry in Great Britain and places statutory and licence obligations upon a licence holder.
- 1.3.2 The requirement to undertake an EIA for developments requiring consent under section 37 of the 1989 Act (subject to stipulations and thresholds) is set out in the Electricity Works (Environmental Impact Assessment)

(Scotland) Regulations 2017¹, (hereafter referred to as 'the EIA Regulations'). This is discussed further in Section 1.4.

1.3.3 Construction of those elements of the Proposed Development relating to the OHL works (see para 1.3.4 and 1.3.5 below) and ancillary works constitutes development in terms of section 26 of the Town and Country Planning (Scotland) Act 1997 (as amended) ("the Planning Act"). Accordingly, these works require planning permission. However, section 57(2) of the Planning Act provides that on the granting of a consent under section 37 of the Electricity Act 1989, for overhead transmission lines and ancillary development, the Scottish Ministers may direct that planning permission for that development shall be deemed to be granted. Deemed planning permission under section 57 of the Planning Act would therefore also be sought from the Scottish Ministers in terms of a future application. The site context and location plan of the Proposed Development can be seen in **Figure 1**.

1.3.4 The elements of the Proposed Development subject to consent under Section 37 of the Electricity Act 1989, and therefore subject to consideration by Scottish Ministers as part of this screening request, can be seen in **Figure 2** and comprise the following:

- Approximately 7.0 km of 132 kV OHL double circuit L7 lattice towers carrying both connections.

1.3.5 Should Section 37 consent be granted, the Applicant is also seeking deemed planning permission under section 57(2) of the Town and Country Planning (Scotland) Act 1997 for certain elements of the project, or ancillary works required to facilitate its construction and operation. These ancillary works (which also form part of the screening request) are likely to include:

- Two Cable Sealing End (CSE) compounds or two towers with a cable sealing end platform (TBC) to facilitate the transition between OHL and UGC. The indicative locations of these are shown on **Figure 1**;
- Access tracks to facilitate construction and on-going maintenance where required; and
- Any tree and vegetation clearance (if required).

1.3.6 Works that are considered to be classed as permitted development under Class 40 1(a) of The Town and Country Planning (General Permitted Development) (Scotland) Order 1992 comprise the following:

- Approximately 6.5 km of 132 kV UGC commencing from the proposed Dell Wind Farm on-site substation;
- Approximately 1.5 km of 132 kV UGC commencing from the proposed Cloiche Wind Farm on-site substation; and
- Approximately 0.8 km of two 132 kV UGC running parallel to each other upon final approach into Melgarve substation.

1.3.7 These elements of the Proposed Development are referenced in this report in relation to the potential for cumulative effects.

1.4 The EIA Regulations

1.4.1 The Proposed Development that will be the subject of an application to Scottish Ministers for Section 37 consent under the Electricity Act 1989 is classified as Schedule 2 development under the EIA Regulations by

¹ The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017, available at <https://www.legislation.gov.uk/ssi/2017/101/contents/made>. Accessed 13/06/2023.

virtue of it being classed as:

“The carrying out of development (other than development which is Schedule 1 development) to provide any of the following -

(2) an electric line installed above ground –

(a) with a voltage of 132 kilovolts or more”

1.4.2 In providing a Screening Opinion the Applicant would ask that Scottish Ministers consider the need for EIA for the Proposed Development requiring Section 37 consent, taking into account Schedule 3 of the EIA Regulations. The Applicant believes that this report demonstrates that the Proposed Development **is unlikely to give rise to significant residual effects on the environment** and that, accordingly, would not be considered EIA Development and thus would not be subject to an EIA and the preparation of an EIA Report

1.4.3 Should Scottish Ministers agree that the Proposed Development should not be considered EIA Development, then a voluntary Environmental Appraisal (EA) as per the outline scope presented in this report, detailing the results of surveys, and any appropriate mitigation, would accompany the application. The results of the EA would be submitted to the ECU, The Highland Council, Statutory Consultees and other interested stakeholders.

1.4.4 In line with the EIA Regulations, this Screening Request includes:

- A plan identifying the location of the Proposed Development (See **Figure 1 and Figure 2**);
- A brief description of the nature and purpose of the Proposed Development (See **Section 2**);
- Factual information regarding the sensitivity of the location and the surrounding area (See **Section 2**);
- A description of the potential for environmental effects based on the information reviewed and knowledge held by the Applicant at this time (See **Section 3 & Section 4**); 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 EA (See **Section 3 & Section 4**).

1.5 Pre-Application Consultation

Route Selection Stage

1.5.1 In accordance with SSEN Transmission's guidance,² a process of consultation during the route selection stage of the project has been undertaken, seeking comments from statutory and non-statutory consultees, and members of the public. This included a face-to-face meeting with representatives from The Highland Council, NatureScot, Scottish Environment Protection Agency (SEPA) and Historic Environment Scotland HES in November 2021, and a virtual public exhibition event (due to Covid restrictions at the time) hosted January 2022. A Report on Consultation³ was produced to summarise the feedback received from the route selection stage consultation and confirm the proposed route to take forward to the alignment selection stage.

Alignment Selection Stage

1.5.2 Following identification of a proposed route, work was undertaken to determine a preferred alignment and design solution for the connections. A similar process of consultation on the preferred alignment was also undertaken.

² SSEN Transmission (September 2020), Procedures for Routeing Overhead Lines and Underground Cables of 132 kV and above

³ SSEN Transmission (May 2022) Melgarve Route Options - Report on Consultation

The Alignment Options Consultation Document (January 2023) was produced detailing the selection process for the preferred alignment, taking account of environmental, economic and technical factors.⁴

1.5.3 In addition, SSEN Transmission held virtual meetings with representatives from THC, NatureScot, and SEPA on 7 and 17 February 2023. These bodies requested that appropriate baseline information be included in any screening and, or, scoping reports in order assist to the best of their capabilities as organisations.

1.5.4 In-person consultation events took place during the alignment selection stage at the following times:

- 8 February 2023 2-6pm,⁵ Laggan Community Hall; and
- 9 February 2023 2-7pm, Fort Augustus Village Hall.

1.5.5 A Report on Consultation was then prepared to provide a summary of the responses received from key stakeholders (including statutory and non-statutory consultees, local communities, landowners and individual residents) during the consultation period held between January 2023 and March 2023.⁶ The conclusions of the Report on Consultation led to the identification by the Applicant of the progressed alignment and design solution for the Proposed Development.

⁴ SSEN Transmission (June 2023) Melgarve Cluster: Report on Consultation – Alignment Options

⁵ The consultation event at Laggan Community Hall on 8 February 2023 was originally scheduled to be 2-7pm, however, due to weather warnings relating to snow, this concluded an hour early due to safety concerns;

⁶ SSEN Transmission (January 2023) Melgarve Cluster Alignment Consultation Document

2. DESCRIPTION OF THE PROPOSED DEVELOPMENT

2.1 Proposals Overview

2.1.1 The Proposed Development is driven by the requirement to connect the proposed Dell and Cloiche wind farms, located in the Monadhliath mountain range approximately 10 km to the east of Fort Augustus, to the National Grid. The proposed wind farms, as well as the existing Stronelairg Wind Farm and its grid connection to Melgarve substation (UGC) and the operational Glendoe Hydroelectric Scheme, are all technical constraints that the proposed connection solution requires to consider.

2.1.2 The connection point at Melgarve substation is located to the south of the proposed wind farms and is located adjacent to the Beaulay to Denny 400 kV OHL. The boundary of the Cairngorms National Park lies to the east of the proposed connection, and Laggan, the nearest village to Melgarve substation, is located approximately 11 km to the east.

2.1.3 From north to south, the key elements of the project are as follows:

- Approximately 6.5 km of 132 kV UGC commencing from the proposed Dell Wind Farm on-site substation travelling in a southerly direction through the turbines of the proposed Dell and Cloiche Wind Farms, to the point where it would connect into a CSE Compound and transition to an OHL as indicatively shown on **Figure 2** (approximate grid reference: NH 48748 01476);
- Approximately 1.5 km of 132 kV UGC commencing from the proposed Cloiche Wind Farm on-site substation travelling in a southerly direction through the turbines of the proposed Cloiche Wind Farm, to the point where it would connect into a CSE Compound and transition to an OHL as indicatively shown on **Figure 2** (approximate grid reference: NH 48748 01476);
- Approximately 7.0 km of 132 kV OHL double circuit L7 lattice towers carrying both connections, travelling in a southerly direction from the CSE Compound at approximate grid reference NH 48748 01476, to the point where it would connect into a CSE Compound and transition to an UGC for connection with Melgarve substation, as indicatively shown on **Figure 2** (approximate grid reference: NN 50665 95793); and
- Approximately 0.8 km of UGC (both 132 kV circuits) from the CSE Compound at approximate grid reference NN 50665 95793 to Melgarve substation where it would terminate.

2.2 Construction of the Proposed Development

OHL Construction

2.2.1 Key tasks during construction of the OHL elements of the Proposed Development would relate to:

- establishment of one or more construction compounds;
- establishment of suitable laydown areas for materials;
- construction of stone tracks (both temporary and permanent) and other temporary access solutions as necessary;
- delivery of structures and materials to site, including tower steelwork, which 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;
- formation of foundations, where different approaches may be used, subject to ground conditions. Foundation types and designs for each tower are likely to comprise:
 - spread type e.g. concrete pad and chimney;
 - piled type e.g. driven concrete, tube and micro pile; or

- augered.
- tower construction (typically can commence two weeks after the foundations have been cast, subject to weather conditions and concrete curing rates)
- stringing of conductors using hauling ropes and winches;
- excavation and construction works associated with foundations, as necessary;
- assembly and erection of OHL support structures;
- remedial works to reinstate the immediate vicinity of the structures, and any ground disturbed, using excavated material;
- reinstatement of temporary access tracks and construction compound(s) as necessary; and
- inspections and commissioning.

2.2.2 It is currently anticipated that the steel lattice structures would be of the L7 suite of towers with a height range of between 22 m and 39 m tall and have an average span length of 220 m. The average OHL structure height would be approximately 30 m.

2.2.3 Plate 2.1 shows a photograph of a typical steel lattice tower for illustrative purposes.

Plate 2.1: Example Steel Lattice Tower OHL Structure



UGC Construction

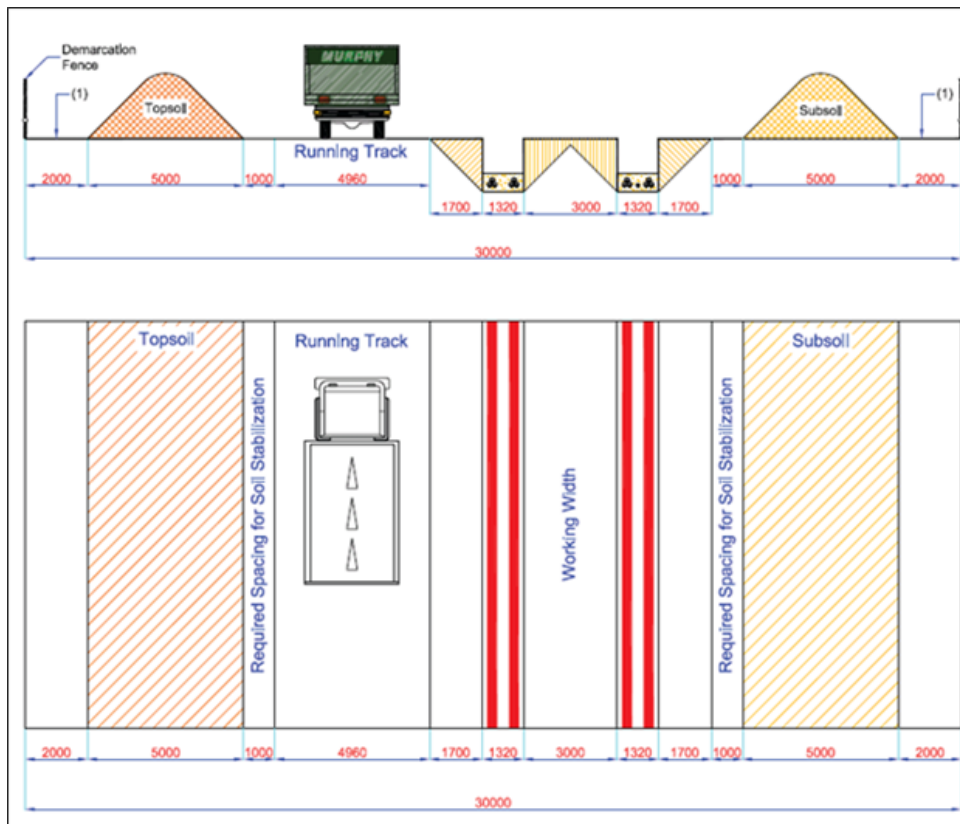
2.2.4 Key tasks during construction of the UGC elements of the Proposed Development (which would be undertaken under the Applicant's permitted development rights and considered within the cumulative assessment of environmental appraisal work, where relevant) would relate to:

- establishment of one or more construction compounds;
- establishment of suitable laydown areas for materials;

- establishment of a working corridor approximately 30 - 40 m wide;
- installation of access haul road and temporary bridges where required;
- strip topsoil and shallow peat layers to facilitate cable trenching;
- excavation of a trench for each circuit up to approximately 2 m in depth and 1 m wide, widening through benching and battering where stability and safety concerns arise;
- clearing out of all materials likely to damage cable ducts, e.g. clods, rocks, stones and organic debris, and employ use of pumps to remove any water;
- installation of ducting within the trench, surrounded by engineered backfill in suitable layers for protection, with protection tile and warning tape placed above the cable line, reinstated to sub-soil level;
- Excavation and formation of power cable joint bays with above ground electrical link pillars and associated demarcation;
- Transportation of and installation of power cable;
- Mobilisation of jointing containers and jointing of power cable;
- Reinstatement of joint bays and installation of fencing at link pillar locations;
- Reinstatement excavated surface layers in reverse order; and
- Commissioning of cable system.

2.2.5 Plate 2.2 shows a diagram of a typical UGC construction corridor.

Plate 2.2: Example of a typical UGC Construction



Access during Construction

2.2.6 It is anticipated that traffic for the construction and operation of the Proposed Development would access the site via two main access points. The first would be to the plateau of higher ground where the proposed Cloiche

and Dell wind farms would be located and where the Glendoe Hydro Scheme and Stronelairg Wind Farm exist. Construction traffic would reach this via the A82 onto the B862, then onto the existing Glendoe access track which connects into the B862 approximately 2 km east of Fort Augustus. This existing access track was constructed to carry construction vehicles and has been maintained for the operation of both Glendoe Hydro Scheme and Stronelairg Wind Farm (see **Figure 1**). The existing access track network on the plateau (and new tracks proposed as part of the Cloiche and Dell wind farm proposals) would be utilised as far as practicable to limit new access track construction.

- 2.2.7 The second main access point would be from Melgarve substation. Access to this area would utilise existing access tracks from the A86 constructed for the Beauly – Denny OHL and Melgarve substation. To access the area between Melgarve substation and the plateau, use would be made of the existing track constructed to install Stronelairg UGC, where possible to limit new access track construction.

Delivery of Structures and Materials

- 2.2.8 All materials would be delivered to construction compounds. Concrete would be expected to be delivered to site pre-mixed, however this will be confirmed by the contractor in due course.
- 2.2.9 It is anticipated that there would be no abnormal load deliveries required as part of the Proposed Development.

Programme

- 2.2.10 It is anticipated that construction of the project would take place over a 24-month period, following the granting of consents, although detailed programming of the works would be the responsibility of the Contractor in agreement with SSEN Transmission.
- 2.2.11 Construction activities would in general be undertaken during daytime periods. Weekend working would also be proposed with timings to be confirmed by the contractor in due course. Working hour assumptions would be set out within the EA and confirmed with The Highland Council.

Construction Environmental Management

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

Reinstatement

- 2.2.14 Following commissioning of the Proposed Development, all temporary construction areas 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 and work sites.

Operation and Management

2.2.15 The OHL sections of the Proposed Development would be anticipated to require very little maintenance, as is generally the case with OHL. Regular inspections would be undertaken to identify any unacceptable deterioration of components, so that they can be replaced. In the event of a fault on a line, the fault can be detected and rectified in a matter of days with OHL. UGC would require additional time for a fault to be detected and there could be the potential requirement for servitude on cable to ensure access.

Decommissioning

2.2.16 The Proposed Development would not have a fixed operational life. If the Proposed Development were to be decommissioned all components of the OHL, inclusive of trident poles, conductors and fittings, would be removed from site and either recycled or disposed of appropriately. A method statement would also be agreed with THC, setting out the detail of the decommissioning process. However, efforts would be made to repurpose the OHL for future connections prior to any decommissioning.

2.3 Biodiversity Net Gain

2.3.1 Biodiversity Net Gain (BNG) is a process which leaves nature in a better state than before development work started. SSEN Transmission has developed a BNG toolkit based upon the Natural England Biodiversity Metric,⁷ which aims to quantify biodiversity based upon the value of habitats for nature. It is an efficient and effective method for demonstrating whether development projects have been able to maintain or increase the biodiversity value of a development site after construction works.

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

SSEN Transmission's Biodiversity Ambition

2.3.3 SSEN Transmission is committed to protecting and enhancing the environment by minimising the potential impacts from their construction and operational activities. As part of this approach, SSEN Transmission plc has made commitments within its Sustainability Strategy (2018)⁸, Sustainability Plan (2019)⁹ and RIIO-T2 Business Plan, for new infrastructure projects to:

- Ensure natural environment considerations are included in decision making at each stage of a project's development;
- Utilise the mitigation hierarchy to avoid impacts by consideration of biodiversity in project design;
- Positively contribute to the UN and Scottish Government Biodiversity strategies by achieving an overall Net Gain; and
- Work with their supply chain to gain the maximum benefit during asset replacement and upgrades.

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

⁷ Natural England Biodiversity Metric 2.0 <http://publications.naturalengland.org.uk/publication/5850908674228224>

⁸ Delivering a smart, sustainable energy future: The Scottish Hydro Electric Transmission Sustainability Strategy (2018) <https://www.ssen-transmission.co.uk/media/2701/sustainability-strategy.pdf>

⁹ Our Sustainability Plan: Turning Ambition into Action. (2019) SHE Transmission. <https://www.ssen-transmission.co.uk/media/3215/our-sustainability-plan-consultation-report.pdf>

3. PROPOSED SCOPE OF ENVIRONMENTAL APPRAISAL

3.1 Introduction

3.1.1 This Section of the report sets out the proposed scope of the appraisal to be undertaken as part of the EA for the Proposed Development, in support of the Section 37 application.

3.1.2 For each topic proposed to be scoped into the appraisal, an overall description of the baseline conditions is provided relevant to that topic. This is followed by a summary of the potential effects associated with a particular topic, and the proposed scope of survey and appraisal work to determine effects and identify appropriate mitigation measures. Issues to be scoped out of the EA are also provided in **Section 4**.

3.2 Landscape and Visual Amenity

Introduction

3.2.1 This Section of the report provides a brief overview of the landscape character and visual amenity baseline conditions, the potential effects associated with the construction and operation of the Proposed Development, and the proposed scope of assessment methodology to be considered in the EA.

Baseline Conditions

Landscape and Visual Context

3.2.2 The landscape context of the Proposed Development is broadly separated into two areas. Landscape and visual context can be seen in **Figure 3**. To the north, the landscape is characterised by a broad and expansive upland plateau of sweeping moorland, featuring open, loosely defined, scooped valleys and rounded hills with no clear landform focal points or summits. A more distant backdrop of mountains is seen from higher ground within the wider setting to the south, east and west.

3.2.3 This upland plateau is currently characterised by Glendoe Hydro Infrastructure and the turbines and tracks of Stronelaig Wind Farm as can be seen in **Figure 1**. This characterisation would be expanded over a wider area with the construction of the proposed Dell and Cloiche Wind Farms.

3.2.4 To the south, a ridgeline of small, steep rounded hills, defined by narrow, steep-sided glens, separates the upland plateau from the wide valley of the upper River Spey. This valley is characterised by rough grassland and small squared coniferous forest plantations with a wide, sinuous river flowing through the base fed by smaller streams which rush down the narrow side glens. To the south, existing electricity transmission infrastructure is present comprising the existing Melgarve substation and the Beaully – Denny 400 kV OHL which is routed along the length of the valley. Various tracks and a narrow road are also present leading through the valley and into the adjacent hills. Despite the presence of these features, there is a sense of remoteness within the valley with few buildings present and a long journey up a single-track road to reach it. This sense increases when moving further to the west and south-west as the roads and tracks deteriorate in structure and the more remote mountainous landscape becomes more influential.

Protected and Designated Landscapes

3.2.5 The Proposed Development does not fall within any designated or otherwise protected landscapes. However, the following areas fall within 5 km of the Proposed Development (see **Figure 4**):

- National Context:
 - The Cairngorms National Park (CNP); and
 - Braeroy – Glen Shirra – Creag Meagaidh Wild Land Area (WLA 19) – 1.6 km to the south of the Proposed Development.

- Regional Context:
 - Ben Alder, Laggan and Glen Banchor Special Landscape Area (SLA) – 2.8 km to the south-east of the Proposed Development.

3.2.6 The boundary of the CNP lies approximately 2.2 km to the south-east of the Proposed Development. The CNP was established in 2003 with the aim of conserving and enhancing the natural and cultural heritage, as well as promoting sustainable development and public enjoyment of its resources. Forty-three Special Landscape Qualities (SLQs)¹⁰ have been identified for the CNP. The preliminary ZTV (see **Figure 5**) indicates that there would be very limited potential intervisibility with the Proposed Development, all at a distance of over 2 km. The potential for any significant effect is therefore considered to be low and it is considered that an SLQ assessment should not be required. However, the high value of the CNP would be a consideration within any future landscape assessment.

3.2.7 WLA 19 extends to the south and south-west of the Proposed Development at minimum distance of around 1.6 km and is one of forty-two areas identified by NatureScot as portraying the most extensive areas of wild land characteristics. The Proposed Development would not be situated within the WLA and would be seen only in the context of other similar developments including the Melgarve substation and Beaully – Denny 400 kV OHL from within a very small and peripheral part of it. It is therefore considered that it would be unlikely to lead to any significant loss of wild land characteristics within the WLA and it is therefore considered that a WLA assessment should not be required.

3.2.8 The Ben Alder, Laggan and Glen Banchor SLA lies around 2.8 km to the south-east of the Proposed Development with areas where potential intervisibility with the Proposed Development would occur being wholly within the CNP. It is therefore also considered unlikely to be significantly affected by the Proposed Development and therefore it is proposed that it would also be scoped out of further landscape assessment.

Landscape Character

3.2.9 The Proposed Development would be located within and therefore would directly affect two Landscape Character Types (LCTs) from the NatureScot suite of National Landscape Character Types. The majority of the alignment would be within LCT 221: Rolling Uplands. The southern 0.25 km of the Proposed Development on the approach to Melgarve Substation would be within LCT 231: Upland Glen – Inverness. There would also be potential wider, indirect effect to LCT 126: Upland Glen – Cairngorms.

3.2.10 The area within the CNP is also covered by the separate Cairngorm National Park Landscape Character Assessment which identifies Landscape Character Areas with a greater level of detail. However, as the CNP is relatively peripheral to the Proposed Development, and it is anticipated that significant effects are unlikely, it is proposed that the NatureScot LCTs would be used in preference for this LVIA.

Visual Receptors

3.2.11 Visual receptors with the potential to gain views of the Proposed Development include those occupying nearby buildings, using routes or enjoying other popular and/or promoted outdoor viewing locations.

3.2.12 The area is remote with very little population, limited to a few scattered properties around Garvamore and Garvabeg within upper Glen Spey, around 2.5 km to the east of Melgarve substation. There are also a few recorded and publicised recreational routes within the area giving the potential for views of the Proposed Development. These include the General Wade's Military Road which passes to the south of Melgarve, and forms part of the popular Corrieyairack Pass route (part of Scottish Hill Tracks 236 and 237¹¹). In addition, the main spine road of the Stronelairg Wind Farm is promoted by the South Loch Ness Access Group as part of the

¹⁰ Scottish Natural Heritage and The Cairngorms National Park Authority (2010) The Special Landscape Qualities of the Cairngorm National Park.

¹¹ Scottish Rights of Way and Access Society (2012). Scottish Hill Tracks, 5th Edition. Scottish Mountaineering Club

Monadliath Trail between Fort Augustus and Whitebridge. There are also some path routes leading from Glen Spean which provide access to local mountains, notably a route from Garva Bridge, ascending the Corbett Meall na h-Aisre which follows the ridgeline to the east of the Proposed Development.

- 3.2.13 A small public car park at Garva Bridge within the upper Glen Spey around 2 km to the southeast of the Proposed Development also forms a popular viewing location as it marks the end of the public road and is sited on the boundary of the CNP.

Characteristics of the Potential Impact

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

- Temporary or long-term physical effects on landscape fabric, relating to the construction of temporary access routes, excavation of tower foundations, construction and reinstatement works and long term presence of the proposed development within the landscape;
- Temporary or long-term direct or indirect effects on landscape character which may occur as a result of changes to the landscape fabric on the intrinsic qualities of the immediate landscape and wider setting;
- Temporary or long-term effects on views, such as those experienced by visual receptors occupying properties at Garvamore and Garvabeg, visitors to Garva Bridge and recreational users of the landscape; and
- Potential cumulative effects with other proposed infrastructure within the area.

- 3.2.15 At this stage preliminary studies suggest that, taking into account the existing and consented infrastructure within the setting, the relatively contained location for the Proposed Development, and the limited numbers of visual receptors present, it is anticipated that the landscape and visual effects of the Proposed Development are unlikely to be significant.

Mitigation

- 3.2.16 Mitigation would be included where possible in order to minimise potential landscape and visual effects. Given the nature of the Proposed Development and existing landscape character, the most suitable mitigation is likely to involve the development of a design which limits the potential landscape and visual effects as far as is practicable when taking into consideration other constraints, along with good working practices to enable a high standard of landscape reinstatement. There may also be some opportunity for localised landform creation to reduce the visual appearance of sealing end compounds.

- 3.2.17 The Proposed Development has already undergone a routeing and alignment exercise which has taken landscape and visual issues into consideration.

Proposed Scope and Assessment Methodology

- 3.2.18 It is proposed that a Landscape and Visual Impact Assessment (LVIA) would be undertaken for the Proposed Development. The LVIA would be undertaken in accordance with best practice guidance, Guidelines for Landscape and Visual Impact Assessment (3rd Edition)¹² (GLVIA3).

- 3.2.19 The LVIA would separately consider the potential landscape and visual effects of the Proposed Development during both construction and operation. It would also give consideration to potential cumulative effects which

¹² Landscape Institute (LI) and Institute of Environmental Management and Assessment (2013) *Guidelines for Landscape and Visual Impact Assessment*. 3rd edition. Published by Routledge

may take place. Operational effects would be assessed at an assumed 10 years after construction and would take into account the likely growth of existing planting areas around Melgarve substation.

- 3.2.20 The landscape assessment would describe the key components, features and characteristics that make up the character of the landscape within the study area. It would consider the extent to which the loss of features and the introduction of the Proposed Development would influence the local landscape character and the broader, National LCTs.
- 3.2.21 The visual assessment would be receptor-based and would give consideration to views obtained by all those living, working, travelling and undertaking recreation within the study area including all building locations, recreational routes and other identified valued viewing locations.
- 3.2.22 The cumulative assessment would consider both landscape and visual effects of the Proposed Development in addition to other proposed and consented developments which may influence the character of the study area and are not present within the baseline at the time of assessment. At the current stage, it is proposed that the cumulative baseline would include the Cloiche and Dell Wind Farms as well as the UGC works associated with the Proposed Development. Cumulative effects would be assessed during the operational phase only.

Study Area

- 3.2.23 Following review of the preliminary ZTV for the Proposed Development (see **Figure 5**) and taking into account the perceptibility of steel lattice towers at a similar scale to those proposed, a 3 km study area is considered appropriate to identify all potentially significant effects.

Visualisations

- 3.2.24 Photomontages would be prepared to inform and support the LVIA to meet THC (2016) visualisation standards and NatureScot (2017), formerly Scottish Natural Heritage (SNH), guidance. It is proposed that these would illustrate the appearance of the Proposed Development within the landscape during its operational phase. The following preliminary locations are proposed for visualisations:
- Visualisation 1: Garva Bridge (approximate grid reference NN 52330 95172) – Representative of views obtained by members of the public within upper Glen Spey, and near a recognised stopping and viewing location on the edge of the CNP. The view would also be similar, albeit at a closer distance, to views from residential properties at Garvabeg.
 - Visualisation 2: Meall na h-Aisre (approximate grid reference NH 51529 00052) Representative of high level views from the south.
- 3.2.25 The photomontages would be supportive of the LVIA, intended to show the appearance of the Proposed Development within the landscape setting. These locations would not comprise particular viewpoints for assessment purposes, as the assessment would include all potential visual receptor locations within the study area. However, they would be otherwise covered by the visual receptor assessment as they comprise areas where visual receptors are likely to be present.

Issues to be Scoped Out

- 3.2.26 As discussed in paragraphs 3.2.4 and 3.2.6, a Special Qualities Assessment of the CNP and assessment of the Ben Alder, Laggan and Glen Banchor SLA are proposed to be scoped out of the LVIA. This is as they are very peripheral to the study area and it is considered very unlikely that the Proposed Development would lead to any significant effects on the qualities of these areas. As detailed in paragraph 3.2.5, it is also proposed that a WLA assessment of WLA 19 should be scoped out. This is as there would be limited intervisibility of the Proposed Development within the WLA, and it would be seen only in the context of other, existing similar development and therefore unlikely to result in any significant effects to wild land qualities.

3.3 Ecology and Nature Conservation

Introduction

3.3.1 This section provides a brief overview of the ecological 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 EA.

Baseline Conditions

3.3.2 The Proposed Development is not located within any international or national natural heritage designations. The following natural heritage designations (non-avian) fall within the vicinity of the Proposed Development:

- The River Spey Special Area of Conservation (SAC) (site code: 8365) and Site of Special Scientific Interest (SSSI) (site code: 1699) are approximately 0.3 km south of the Proposed Development. The River Spey SSSI and SAC are designated for biological features including Atlantic salmon (*Salmo salar*), freshwater pearl mussel (*Margaritifera margaritifera*) (FWPM), otter (*Lutra lutra*) and sea lamprey (*Petromyzon marinus*).
- Creag Meagaidh SAC (site code: 8235), SSSI (site code: 457), and National Nature Reserve (NNR) (site code: 5021) are approximately 1.5 km south of the Proposed Development, designated for natural biological features including a diverse mosaic of upland habitats of European importance. SAC qualifying features comprise: acidic scree, alpine and subalpine heaths, blanket bog (priority habitat), clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels, dry heaths, montane acid grasslands, mountain willow scrub, plants in crevices on acid rocks, plants in crevices on base-rich rocks, tall herb communities, and wet heathland with cross-leaved heath. SSSI qualifying features include: breeding bird assemblage, rocky slopes (includes inland cliff, rocky outcrops, chasmophytic vegetation), upland assemblage, upland birch woodland, and vascular plant assemblage.
- Monadhliath SAC (site code: 8324) and SSSI (site code: 1180) are located approximately 2.3 km east of the Proposed Development. The SAC is designated for blanket bog and the SSSI is designated for blanket bog and a range of upland habitats supporting rare vascular plants, as well as the black mountain moth (*Glacies coracina*), breeding bird assemblage and breeding dotterel (*Charadrius morinellus*), which is a species of national importance.
- Ness Woods SAC (site code: 8337), located approximately 5 km west of the Proposed Development, designated for European mixed woodlands on base-rich soils associated with rocky slope, western acidic oak woodland and for otter.
- Glen Tarff SSSI (site code: 725), located approximately 5 km west of the Proposed Development, forms part of the Ness Woods SAC, and is designated for its biological features including upland mixed ash woodland and the rare beetle *Bolitophagus reticulatus*.

3.3.3 A review of the Ancient Woodland Inventory (AWI)¹³ identifies that no ancient woodland is within or adjacent to the Proposed Development. The nearest woodland listed on the AWI is located approximately 1.1 km south of the Proposed Development at NN498944 Coill Bheag and approximately 1.6 km south of the Proposed Development at NN510940 Coill Coire A Bhein. Other areas are present to the north-east, along the Allt Odhar, to the north, along the River Killin, and to the west, along the River Tarff.

3.3.4 Sightings or signs of otter, water vole, mountain hare, brown hare and common lizard were recorded during surveys for the Proposed Development. Squirrel feeding signs were noted in areas of conifer plantation. In addition, a pine marten den box and a bat box were recorded in the vicinity of Melgarve substation; it is unknown whether either are in use. Watercourses and water bodies throughout are considered suitable for supporting otters; with many of the smaller watercourses in the north of the site also suitable for supporting

¹³ <https://www.nature.scot/doc/guide-understanding-scottish-ancient-woodland-inventory-awi>

water vole. No other protected features (holts or couches) were recorded. Other reptile species (slow worm and adder) may also be present. No badger signs were recorded.

- 3.3.5 Resident brown trout (*Salmo trutta*) are likely to be present in various life stages within watercourses within the site, although densities may be low. There is potential that these trout populations could support FWPM if habitat conditions are suitable. European eel (*Anguilla Anguilla*) may be present in low numbers. Migratory species, including Atlantic salmon, river lamprey (*Lampetra fluviatilis*) and sea lamprey, are not likely to be present in the site. The Ecological Impact Assessment for Cloiche Wind Farm concluded that brown trout are likely to be the only species present within the wind farm site, due to barriers to fish passage which make the area inaccessible to most fish species, and trout density in streams draining the site is likely to be low¹⁴. Fish surveys conducted at Stronelairg wind farm found trout to be present, however population density at all sites was very low; watercourses within the Stronelairg wind farm site are upstream of known impassable barriers and therefore considered to be inaccessible to migratory fish species, with the possible exception of European eel. No other fish species were caught or seen during surveys, and no FWPM were recorded. In the area of the Dell Wind Farm site, it was assessed that migratory fish would not be present due to the impassable Foyers waterfalls downstream of the site, in addition, watercourses located within the plateau section of the site are considered too steep and shallow to maintain trout populations¹⁵, also indicating that FWPM populations would not be present. In the south of the site, watercourses are hydrologically connected via the Allt Coire Iain Ogg and Allt Gilbe to the River Spey SAC and SSSI, which are classified for Atlantic salmon, FWPM and sea lamprey. However, Allt Coire Iain Ogg contributes to SEPA river ID:23154, River Spey – source to Garva, which is part of the Water Framework Directive (WFD) classification and was classified as Poor overall condition in 2014, with Poor access for fish migration, due to Spey Reservoir downstream presenting a barrier¹⁶. Progress is being made at the Spey Dam which should improve fish passage¹⁷. Electrofishing surveys completed as part of the Glenshero Wind Farm submission¹⁸ found a robust and healthy resident trout population on the Allt Coire Iain Oig. No fish were recorded on the Allt Gilbe. Juvenile salmon were present downstream, below the large waterfall on the Feith Talagian, a short distance above the River Spey; the waterfall is considered unpassable to migratory salmonids.
- 3.3.6 In terms of habitats, blanket bog dominates the site, followed by wet dwarf shrub heath, bare peat, and unimproved acid grassland. Within and around these areas are patches of other habitat types such as lichen/bryophyte heath, acid dry dwarf shrub heath, conifer plantation, montane heath, and acid neutral flushes (see **Figure 6**). Much of the peatland habitat is degraded to some extent. The site is dissected by a number of watercourses, including Allt Gilbe, Allt Coire Iain Oig, Allt Creag Chomaich, and the Allt na Craidhleig. There are also a number of lochans within the site, namely Lochan Iain, Dubh lochan, and Loch nan Sidhean.
- 3.3.7 The Carbon and Peatland Map 2016¹⁹ was consulted to determine likely peatland classes present at the site. The map is a predictive tool that provides an indication of the likely presence of peat at a coarse scale. The Carbon and Peatland map has been developed as a high-level planning tool and identifies areas of nationally important carbon-rich soils, deep peat and priority peatland habitat²⁰ as Class 1 and Class 2 peatlands. According to this predictive tool, the site contains a large amount of Class 1 peatland within the central and northern areas, with a much smaller area of Class 2 peatland to the west of Sherramore Forest to the south of

¹⁴ SSE (2020). Cloiche wind farm: Environmental Impact Assessment Report.

¹⁵ LUC (2022). Dell Wind Farm: EIA Scoping Report.

¹⁶ www.sepa.org.uk/data-visualisation/water-environment-hub/ [Accessed May 2023]

¹⁷ NatureScot (2020). Conservation Advice Package for the River Spey SAC.

¹⁸ Spey Fishery Board (2018). Glenshero Wind Farm EIA Report – Technical Appendix 6.4 - Electrofishing & Habitat Survey

¹⁹ SNH (2016). Carbon and Peatland 2016 map. Available at: <https://www.nature.scot/professional-advice/planning-and-development/planning-and-development-advice/soils/carbon-and-peatland-2016-map>

²⁰ Priority peatland habitat is land covered by peat-forming vegetation or vegetation associated with peat formation.

the site. The habitats survey data collected indicates the presence of peatland, through the presence of blanket bog and wet modified bog which is dominant within the vicinity of the Proposed Development.

- 3.3.8 The site falls within the area covered by the Highland Nature Biodiversity Action Plan (BAP) 2021-2026²¹. The Highland BAP includes a number of priority habitats and species for the Highlands region including the following habitats and their related species which are present within the site: upland and moorland, peatland and wetland, woodland and forest, and freshwater.

Characteristics of the Potential Impact

- 3.3.9 The potential terrestrial ecology and nature conservation impacts associated with the construction and operation of the Proposed Development comprise:
- Temporary or permanent, direct and/or indirect impacts, on the integrity or qualifying features of designated nature conservation sites;
 - Temporary or permanent, direct (e.g. from land-take) and/or indirect (e.g. through changes caused by impacts to supporting systems such as groundwater or overland flow) losses or alteration/disturbance of habitats of nature conservation value;
 - Temporary or permanent direct impacts on protected species, such as loss of life as a result of the Proposed Development, loss of key habitat, displacement from key habitat, barrier effects preventing movement to/from key habitats, and general disturbance;
 - Temporary or permanent indirect impacts on protected species through loss/changes of/to food resources, population fragmentation, or degradation of key habitat (e.g. as a result of pollution); and
 - Cumulative impacts – ecological impacts arising from the addition of the Proposed Development in combination with other projects.

Mitigation

- 3.3.10 The routing and alignment selection process for the Proposed Development has enabled consideration of potential significant effects on habitats and species, and for such effects to be avoided or minimised where practicable through this process. This will continue and will inform the detailed siting of infrastructure and construction access, where technically feasible, to avoid and minimise effects on habitats and species where practicable.
- 3.3.11 In addition, the Applicant has established best practice construction techniques and procedures that have been agreed with statutory consultees, including SEPA and NatureScot. These are set out within the Applicant's General Environmental Management Plans (GEMPs). The Proposed Development would be constructed in accordance with these plans.
- 3.3.12 A contractual management requirement on the successful Principal Contractor would be the development and implementation of a comprehensive and site-specific robust Construction Environmental Management Plan (CEMP). This document would detail how the successful Principal Contractor would manage the works in accordance with all commitments and mitigation detailed in the EA, SSE's GEMPs, statutory consents and authorisations, and industry best practise and guidance, including pollution prevention guidance.
- 3.3.13 As discussed in Section **Error! Reference source not found.**4, the Proposed Development would meet biodiversity enhancement requirements in line with NPF4 Policy 3.

²¹ <https://www.highlandenvironmentforum.info/biodiversity/action-plan/>

Proposed Scope and Assessment Methodology

- 3.3.14 A Phase 1 Habitat and National Vegetation Classification (NVC) survey of the site was undertaken in October 2022 to identify habitats and vegetation communities at and around the Proposed Development, covering a 200 m corridor from the alignment options, see **Figure 65**. The Habitat surveys followed the NVC scheme²² using standard methods²³ and incorporating Phase 1 Habitat Survey characterisation²⁴. The NVC data would also be used to identify areas of potential GWDTE within the survey area. Potential GWDTE habitats would be identified in line with SEPA guidance²⁵. The NVC data collected were cross-referenced to the Phase 1 Habitat Survey Classification to allow a broader characterisation of habitats. The habitats are shown on **Figure 6** which displays all data collected during surveys. The Phase 1 symbology has been used to broadly characterise stands of vegetation based on the dominant NVC community within a particular area²⁶. Detailed NVC labelling is shown for the habitats within a 200 m buffer of the Proposed Development.
- 3.3.15 Walkover surveys for protected species have been undertaken in October 2022 within areas of suitable habitat in accordance with best practice methodologies, focussing on otter, badger, water vole, pine marten, red squirrel and bats. As well as surveys for the aforementioned species, any incidental records or signs of any other protected species (e.g. reptiles or hares) or any features of particular importance (i.e. potential hibernacula) were recorded. The surveys were undertaken within a 200 m corridor of the alignment options, further buffered by 30m (for red squirrel²⁷ and bats²⁸), 100m (for badger²⁹ and pine marten³⁰) and 200m (for otter³¹ and water vole³²).
- 3.3.16 For the EA, the results of these surveys would be used to inform an Ecological Impact Assessment (EclA) of the Proposed Development, carried out in accordance with the Chartered Institute of Ecology and Environmental Management (CIEEM) Guidelines for Ecological Impact Assessment (2018³³), and with due consideration of any other relevant legislation, policy or guidance.
- 3.3.17 Where appropriate, mitigation measures would be recommended within the EclA to remedy any adverse effects and measures to enhance the local ecology and deliver a significant biodiversity enhancement would also be incorporated within the assessment. An assessment of residual effects would then be undertaken and reported within the EA.
- 3.3.18 The Proposed Development would be subject to a Habitat Regulations Appraisal (HRA) under the 2017 Habitat and Species Regulations given that the Proposed Development would pass approximately 0.3 km to the north

²² Rodwell, J.S. (Ed) *et al.* (1991 – 2000). *British Plant Communities* (5 volumes). Cambridge University Press, Cambridge.

²³ Rodwell, J.S. (2006). *NVC Users' Handbook*. ISBN 978 1 86107 574 1.

²⁴ Joint Nature Conservancy Council. (2010). *Handbook for phase 1 habitat survey – a technique for environmental audit*. JNCC, Peterborough.

²⁵ SEPA. (2017). Land Use Planning System Guidance Note 4 - Planning guidance on on-shore windfarm developments and SEPA (2017). Land Use Planning System Guidance Note 31 - Guidance on Assessing the Impacts of Development Proposals on Groundwater Abstractions and Groundwater Dependent Terrestrial Ecosystems.

²⁶ The Phase 1 characterisation has been utilised to allow a broader visual representation of the habitats within the survey area. Polygons or areas where there are mosaic NVC communities have generally been assigned a single Phase 1 classification based on the dominant NVC type (despite some polygons containing multiple Phase 1 types, often in low percentages). Therefore, the Phase 1 characterisation is generally a broader overview, and the NVC data should be referred to for further detail in any specific area.

²⁷ Surveyed in line with NatureScot (2023). Standing advice for planning consultations – red squirrels. Online. Available at: <https://www.nature.scot/doc/standing-advice-planning-consultations-red-squirrels> [Accessed May 2023].

²⁸ Surveyed in line with Collins, J. (ed) (2016). *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3rd edn). The Bat Conservation Trust, London.

²⁹ Surveyed in line with Scottish Badgers (2018). *Surveying for Badgers: Good Practice Guidance*.

³⁰ Surveyed in line with O' Mahony D., O' Reilly, C. & Turner, P. (2006). *National Pine Marten Survey of Ireland 2005*. Council for Forest Research and Development, Ireland.

³¹ Surveyed in line with NatureScot (2023). Standing advice for planning consultations – otter. Online. Available at: <https://www.nature.scot/doc/standing-advice-planning-consultations-otters> [Accessed May 2023].

³² Surveyed in line with Dean, M., Strachan, R., Gow, D. and Andrews, R. (2016). *The Water Vole Mitigation Handbook* (The Mammal Society Mitigation Guidance Series). Eds Fiona Matthews and Paul Chanin. The Mammal Society, London.

³³ CIEEM (2018). *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine* (version 1.1). Chartered Institute of Ecology and Environmental Management, Winchester.

of the River Spey SAC and is hydrologically linked. As part of a HRA, the competent authority would be required to undertake an Appropriate Assessment. The EA would include sufficient information to allow the competent authority to undertake this assessment.

Issues to be Scoped Out

3.3.19 It is proposed that the following are scoped out of the detailed terrestrial ecology and nature conservation assessment:

- Creag Meagaidh SAC, SSSI and NNR, Monadhliath SAC and SSSI, Ness Woods SAC, and Glen Tarff SSSI; the sites are situated over 1.5 km from the Proposed Development and there is no hydrological connectivity. Due to the distance, the nature of works, and the adoption of best practice construction methods, no potential effects on these designated sites have been identified, and the sites are proposed to be scoped out of the detailed EclA; and
- Effects on habitats that are considered to be of low conservation value³⁴ and are common habitat types locally and regionally are scoped out of the assessment, this would likely include, but not be limited to conifer plantation (including clearfell areas), and acid and neutral grasslands. The full list of habitats recorded and scoped-out would be detailed in the EclA.

3.4 Ornithology

Introduction

3.4.1 This section provides an overview of the field surveys that have been undertaken 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 EA.

Baseline Conditions

3.4.2 Approximately 4 km west of the study area lies Loch Knockie and nearby Lochans Special Protection Area (SPA). This SPA is designated for supporting populations of Slavonian Grebe (*Podiceps auratus*) (up to six pairs comprising 10 % of the UK population).

3.4.3 Creag Meagaidh SPA lies approximately 1.3 km south of the Proposed Development. The qualifying feature of this SPA is breeding Dotterel (*Charadrius morinellus*).

3.4.4 The following surveys were undertaken for the Proposed Development between October 2021 and September 2022:

- vantage point surveys;
- moorland breeding bird surveys;
- winter walkover surveys;
- breeding raptor surveys; and
- Lochan/waterbody searches.

3.4.5 A total of 52 species were recorded during the surveys undertaken. Of these, eleven species are listed as Schedule 1 species. These are:

- Golden Eagle (*Aquila chrysaetos*) – A total of 73 Golden Eagle flightlines were recorded during the vantage point surveys between October 2021 and September 2022. The majority of flightlines were

³⁴ That is, habitats outwith the following categories: Habitats listed in Annex I to the Habitats Directive, Biodiversity Action Plan (UKBAP) or Scottish Biodiversity List (SBL) Priority Habitats, Highland Nature Biodiversity Action Plan (2021-2026) Habitats for Action, or Habitats or species protected by legislation such as The Wildlife and Countryside Act 1981 (as amended) and/or the Nature Conservation (Scotland) Act 2004 (as amended).

observed around Creag Mhor, Carn Dearg and Gairbeinn Cairn to the south and west of the Proposed Development, around Leathad Gaothach to Meall na h-Aisre and the ridgeline running north to the east of the Proposed Development and around Carn Easgann Bana to the north and west of the Proposed Development. Of the 73 flightlines observed, only ten flights bisected the proposed OHL route, with five of these flights at collision risk height. Three Golden Eagle territories are known in the vicinity of the Proposed Development, but no nest sites occur within 2 km.

- White-tailed Eagle (*Haliaeetus albicilla*) – A total of twelve White-tailed Eagle flightlines were recorded during the vantage point surveys between October 2021 and September 2022. The majority of the flights were recorded around Carn Easgann Bana and Coire Odhar in the north of the survey area. One White-tailed Eagle flightline was recorded bisecting the OHL route during the survey period, at a height considered within the risk height window. No White-tailed Eagle nests were recorded within 2 km of the Proposed Development.
- Hen Harrier (*Circus cyaneus*) – A total of four Hen Harrier flightlines were recorded during the vantage point surveys between October 2021 and September 2022. One flightline bisected the Proposed Development at collision risk height. No Hen Harrier nests were recorded within 1 km of the Proposed Development.
- Red Kite (*Milvus milvus*) - A total of four Red Kite flightlines were recorded during the vantage point surveys between October 2021 and September 2022. No Red Kite flights bisected the Proposed Development. No Red Kite nests were recorded within 1 km of the Proposed Development.
- Osprey (*Pandion haliaetus*) – One Osprey flightline was recorded during the vantage point surveys, commuting through Coire Odhar to hunt at the reservoir to the west of the Proposed Development. No Osprey nests were recorded within 1 km of the Proposed Development.
- Peregrine (*Falco peregrinus*) – A total of five Peregrine flightlines were recorded during the vantage point surveys, predominately around Creag Mhor towards the southern end of the Proposed Development. A pair successfully bred approximately 1.2 km from the Proposed Development.
- Merlin (*Falco columbarius*) – A total of four Merlin flightlines were recorded during the vantage point surveys. A pair successfully bred at a location between 750-900 m from the Proposed Development.
- Goshawk (*Accipiter gentilis*) – One Goshawk flightline was recorded during the vantage point surveys, heading south past Creag Mhor. No Goshawk nest were recorded within 1 km of the Proposed Development.
- Greenshank (*Tringa nebularia*) – A pair were on territory on a small lochan approximately 500 m from the Proposed Development.
- Crossbill (*Loxia curvirostra*) – Commonly recorded in the plantation forest blocks east of the Melgarve substation during the winter.
- Common Scoter (*Melanitta nigra*) – This species was not recorded during the suite of surveys undertaken for the Proposed Development, however two ad-hoc sightings were noted during travel into and out of the site. Two pairs were present on Lochan a'Choire Ghalsi on 28th April 2022 and relocated to the reservoir the following week. It is assumed that these birds went to known breeding lochans within the Loch Knockie and nearby lochans SPA as they were not seen subsequently.

3.4.6 A total of seven species are on the Red List of Birds of Conservation Concern (BoCC). These are:

- Hen Harrier;
- Merlin;
- Common Scoter;

- Dunlin (*Calidris alpina*) – A total of five Dunlin territories were present within 500 m of the Proposed Development;
- Ringed Plover (*Charadrius hiaticula*) – A pair of Ringed Plover were present within 500 m of the Proposed Development;
- Skylark (*Alauda arvensis*) – widespread throughout the survey area; and
- Ptarmigan (*Lagopus muta*) – a small number were present at the top of Meall na h-Aisre during the winter.

3.4.7 No Slavonian Grebe or Dotterel, qualifying features for Loch Knockie and nearby lochans SPA and Creag Meagaidh SPA respectively, were recorded during any of the suite of surveys undertaken for the Proposed Development.

Characteristics of the Potential Impact

3.4.8 The potential ornithology effects associated with the construction and operation of the Proposed Development could include:

Construction

- habitat loss;
- disturbance (visual and noise);
- displacement; and
- indirect effects e.g. disruption to habitat function, effects on prey

Operation

- collision risk;
- Electrocutation;
- habitat loss;
- disturbance (visual and noise);
- displacement and barrier effects; and
- indirect effects e.g. disruption to habitat function, effects on prey.

3.4.9 Of the flightlines recorded, five Golden Eagle, one White-tailed Eagle one Hen Harrier flightlines were recorded bisecting the proposed OHL route at collision risk height. However, the time spent within the collision risk height is very small, so any collision risk effects are unlikely to be significant.

3.4.10 Although the installation of an OHL would present a new feature for birds in this location, birds are able to access from either the east or west. In addition, an OHL at between 22-39 m height would have no discernible effect on a bird's ability to continue to fly over or under the new OHL and be of no consequence in the context of daily energy budgets. Barrier effects are therefore considered unlikely to be significant.

3.4.11 There has been a large amount of research on the risk of electrocution to birds and it has been understood within the industry for many years how to design towers which minimise or remove the risk of electrocution. From this research, it has been established that the recommended minimum horizontal distance of phased conductors is stated as 1.5 m for the wrist-to-wrist measurement of a bird and 1 m for head-to-foot measurement. Based on this, the design of the Proposed Development would have little risk of bird mortality by electrocution.

- 3.4.12 Habitat loss as a result of the Proposed Development could result in the loss or displacement of up to three Golden Plover (*Pluvialis apricaria*) and one Dunlin territory. However, suitable habitat is widespread across the site that any impact would be considered unlikely to be significant.

Mitigation

- 3.4.13 The surveys undertaken have played a large role in the route and alignment selection of the Proposed Development, particularly the siting of the proposed OHL, to minimise any impacts on ornithology.
- 3.4.14 Pre-checks for nesting birds and the production of species-specific protection plans during construction and maintenance works (operational phase) would be undertaken and implemented. Other mitigation measures will be considered and set out in the EA where relevant.

Proposed Scope and Assessment Methodology

- 3.4.15 The survey results, along with desk study data would be incorporated into an Ornithological Technical Report and appended to the EA. This would include any required collision risk assessment for individual bird species.
- 3.4.16 The surveys and subsequent Technical Report would be used to inform an Ornithological Chapter within the EA, carried out in accordance with the Chartered Institute of Ecology and Environmental Management (CIEEM) Guidelines for Ecological Impact Assessment (2018), and with due consideration of any other relevant legislation, policy or guidance.
- 3.4.17 Where appropriate, mitigation measures, including those detailed above, would be recommended within the chapter to remedy any adverse effects and measures for enhancement would also be incorporated within the assessment. An assessment of residual effects would then be undertaken and reported within the chapter.

Issues to be Scoped Out

- 3.4.18 Given the very low risks associated with barrier effects (see paragraph 3.4.10) and risk of electrocution of birds (see paragraph 3.4.11) these can be scoped out of further assessment.

3.5 Soils, Geology and the Water Environment (Hydrology & Hydrogeology)

Introduction

- 3.5.1 This section provides an overview of the soils, geology and water environment (hydrology and hydrogeology), the potential effects associated with the construction and operation of the Proposed Development, and a summary of the proposed assessment methodology.
- 3.5.2 The scope of the proposed assessment has been informed by responses from THC, SEPA, NatureScot and Scottish Water during previous consultation and comments made by these consultees during the route and alignment selection process.

Baseline Conditions

- 3.5.3 Baseline conditions relevant to the water environment are described below. Reference should also be made to **Figure 7** and **Figure 8a-b**.
- 3.5.4 Through the appraisal of route and alignment options, the soils, geology and water environment are well understood, and peat depth probing along a number of potential alignment options has been undertaken. This data, as well as published information sources, have been used to describe and characterise the baseline conditions.

Soils, Geology and Hydrogeology

- 3.5.5 British Geological Survey mapping (BGS) indicates that the Proposed Development overlies several units of psammites and semipelites to the north (Monadliath Semipelite Formation, Loch Laggan Psammite Formation, Coire nan Laogh Semipelite Formation and Gairbeinn Pebbly Psammite Formation) with small extents of felsite (North Britain Siluro-Devonian Calc-Alkaline Dyke Suite - Felsite) and Meladiorite (Appinite Suite - Meladiorite, Hornblende).
- 3.5.6 Granodiorites are more prominent in the south (Allt Crom Complex, Allt Crom Granodiorite with rafts of the Loch Laggan Psammite and Garva Bridge Psammite Formations) with some small fragments of Microdiorites.
- 3.5.7 The bedrock beneath the Proposed Development is shown to be partially overlain by superficial deposits of Glacial Till (Diamiction and Hummocky Glacial Deposits) and peat. Glaciofluvial Ice Contact deposits and Alluvium are present adjacent to larger watercourses, including the River Spey. Neither the superficial or bedrock geology is rare as it is common regionally, and with the exception of peat, it is considered that it does not pose a development constraint.
- 3.5.8 Priority peatland mapping published by NatureScot indicates that the Proposed Development is located in areas of priority peatland (Class 1 and 2), see **(Figure 7)**. Peat depth probing has been completed to support and inform the route and alignment selection stages of the project. Recorded peat depths are shown on **Figure 8a-b**. Further targeted peat probing would be undertaken to support the assessment on peat, filling any data gaps in the current peat depth dataset, and to gather data for peat depth beneath any proposed access tracks used to construct and maintain the Proposed Development.
- 3.5.9 The bedrock beneath the Proposed Development has been classified by BGS as a low productivity aquifer where small amounts of groundwater may be present within the near surface weathered zone or secondary fractures. The volume of groundwater is therefore likely to be low. Shallow groundwater is likely to be present in the more permeable superficial deposits adjacent to watercourses.

Hydrology and Designated Sites

- 3.5.10 The Proposed Development is located across two surface water catchments; the River Spey in the south and the River Ness in the north. In the north watercourses drain to Glen Doe reservoir. The watercourses and the reservoir are designated as a Drinking Water Protection Area (DWPA) and form part of the surface water catchment which drains to Loch Ness, where Scottish Water maintain a raw water abstraction. Loch Ness supplies Invermoriston Water Treatment Works (WTW).
- 3.5.11 Following review of route stage and alignment stage consultation responses, Scottish Water confirmed that the Loch Ness catchment is a relatively large catchment and that the Proposed Development is a sufficient distance from the intake that it is likely to be low risk, however care should be taken and water quality protection measures must be implemented.
- 3.5.12 The River Spey is an important watercourse and high value fishery. It is also designated as a SSSI and SAC.
- 3.5.13 Review of NatureScot SiteLink website confirms that the River Spey is the only water dependent designated site located within 500 m of the Proposed Development. It is located approximately 350 m south of Melgarve substation at its closest extent. The SSSI / SAC is designated for its population of Freshwater Pear Mussel, Sea Lamprey, Atlantic Salmon and Otter. There are no sites designated for their soils or rocks within 500 m of the Proposed Development.

3.5.14 Review of The Highland Council private water supply (PWS) database indicates that there are no private water supplies located within 500 m of the Proposed Development.

3.5.15 SEPA flood mapping shows discrete areas near to the Proposed Development that are considered to be at a high risk of flooding from rivers (10% annual probability) but these typically bound watercourses and are not considered to pose a development constraint. Small areas are also considered to be at high to low risk of flooding from surface water, with annual probabilities ranging from 10% and 0.1%; again these areas are discrete and typically correspond to low points or depressions in surface topography.

Characteristics of the Potential Impact

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

- Construction:
 - Disturbance and loss of peat deposits;
 - Increased flood risk to areas downstream of the proposed development during construction through increased surface water runoff;
 - Potential adverse change of surface water and groundwater flow paths and contribution to areas of peat and Groundwater Dependant Terrestrial Ecosystems (GWDTE), water dependent habitat and water supplies;
 - Disturbance of watercourses from the construction of the proposed development;
 - An adverse effect on surface water or groundwater quality from pollution, fuel, oil, concrete or other hazardous substances; and
 - Potential pollution impacts and adverse effect to public and private water supplies, including DWPA's.
- Operation:
 - Adverse changes to surface water flow paths, watercourse discharge rates and volumes, and alteration to watercourse geomorphology;
 - As a result of alteration to groundwater and surface water flow paths, an adverse effect on water abstractions and water dependant habitat;
 - An adverse effect on surface water or groundwater quality from pollution, fuel, oil, concrete or other hazardous substances from site traffic associated with maintenance activities; and
 - Increased flood risk through increased surface water runoff from new impermeable areas.

3.5.17 Subject to the adoption of the best practice construction techniques and implementation of appropriate mitigation measures, no significant effects on soils, geology or the water environment are anticipated.

Mitigation

3.5.18 Analysis and interpretation of data gathered during the assessment process would ensure that the Proposed Development and associated works are carefully sited to ensure potential effects on soils, geology and the water environment are minimised where practicable through design. This has been the case for the project to date through the route and alignment selection stages which has sought to avoid areas of sensitivity where possible.

3.5.19 In addition, the Applicant has established best practice construction techniques and procedures that have been agreed with statutory consultees, including SEPA and NatureScot. These are set out within the Applicant's

GEMPs. The Proposed Development would be constructed in accordance with these plans. A CEMP would also be developed and implemented. The CEMP would also outline measures to ensure that the works minimise the risk to soils, geology, groundwater and surface water, and water users.

Proposed Scope and Assessment Methodology

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

- EC Water Framework Directive (2000/60/EC);
- National Planning Framework 4 (2023);
- Water Environment and Water Services (Scotland) Act 2003;
- Water Environment (Controlled Activities) Regulations 2011;
- Land Use Planning System – SEP Guidance Note 31 (Guidance on Assessing Impacts of Development Proposals on Groundwater Abstractions and Groundwater Dependant Terrestrial Ecosystems), Version 3, SEPA, 2017;
- Control of Water Pollution from Linear Construction Projects – Technical Guidance, C648, CIRIA, 2006;
- The SuDS Manual C753, 2015; and
- Environmental Good Practice on Site C741, CIRIA, 2015.

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

3.5.22 The desk study would confirm sensitive features which may potentially be affected by the Proposed Development and would confirm the geological, hydrogeological and hydrological environment. A further field programme of investigation undertaken to verify (or otherwise) the desk study and obtain for example, additional peat depth data where there are currently gaps, to collate a schedule of watercourse crossing and visit areas of potential GWDTE (in consultation with the project ecologists). The desk study and field programme would be used to further inform the final design.

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

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

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

- potential effects on the hydrological regime, including water quality, flow and drainage;
- assessment of potential effects on water uses and water sources;

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

3.5.26 The assessment would include consideration of temporary and permanent ancillary works, such as access tracks, required during the construction and operational phase of the Proposed Development.

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

- The Highland Council;
- SEPA;
- NatureScot;
- Scottish Water;
- Ness District Salmon Fisheries Board; and
- Spey District Salmon Fisheries Board.

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

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

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

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

3.5.32 With regard to peat, NatureScot has confirmed in previous consultation at the routeing and alignment stage of the project that the mitigation hierarchy should be applied so that impacts are avoided, or minimised as far as possible, and where they cannot be avoided appropriate restoration measures are secured. It is confirmed this would be clearly shown in the assessment.

3.5.33 It is anticipated that the assessment would be supported by the following Technical Appendices:

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

Issues to be Scoped Out

3.5.34 Having regard to the nature of the Proposed Development and key baseline characteristics, at this stage it is considered the following can be scoped out of further assessment:

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

3.6 Traffic and Transport

Introduction

- 3.6.1 This section provides a brief overview of the traffic and transport baseline conditions, the potential effects associated with construction of the Proposed Development and the proposed scope of assessment methodology to be considered in the EA.

Baseline Conditions

- 3.6.2 The study area network for use in the assessment has been assumed to be as follows:

- The A82 at Fort Augustus;
- The B862 between Fort Augustus and the Glendoe access track; and
- The A86 between Spean Bridge and Dalwhinnie.

- 3.6.3 The study area is based upon the likely origin points for materials, staff and components required for use during the construction phase of the Proposed Development.

- 3.6.4 To fully capture the baseline traffic and transport conditions for the Proposed Development, the following would be undertaken;

- Traffic survey data for use in the assessment would be obtained from the Traffic Scotland database (where such data exists) for the following links:
 - The A82 to the north and south of Fort Augustus; and
 - The A86 between Spean Bridge and Dalwhinnie.

- Automatic Traffic Count (ATC) surveys at the existing Melgarve substation access junction and Glendoe access track junction would also be undertaken during a neutral month for a one week period.
- In addition to traffic flow data, traffic accident data for a five year period for the A86 and B862 within 2 km of the existing access junctions would be obtained from the public website source, Crashmap³⁵
- A site visit would also be undertaken to review the access route and obtain further baseline data and characteristics.

3.6.5 As described in Section 2.2, construction access for the Proposed Development would be taken from both the B862 Glendoe access junction, and the existing access tracks from the A86 constructed for the Beauty – Denny OHL and Melgarve substation. Sensitive receptors to be considered in the assessment would include communities within the study area and users of the road links.

Characteristics of the Potential Impact

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

- Severance;
- Driver delay;
- Pedestrian delay;
- Pedestrian amenity;
- Fear and intimidation; and
- Accidents and safety.

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

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

Mitigation

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

- Production of a Construction Traffic Management Plan (CTMP);
- The design of suitable access arrangements with full consideration given to the road safety of all road users; and
- A Staff Sustainable Access Plan.

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

Proposed Scope and Assessment Methodology

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

³⁵ <https://www.crashmap.co.uk/>

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

- Transport Assessment Guidance (Transport Scotland, 2012);
- The Guidelines for the Environmental Assessment of Road Traffic (Institute of Environmental Assessment (IEA), 1993);
- National Planning Framework 4 (Scottish Government, 2023); and
- The Highland Council Guidance on the Preparation of Transport Assessments (2014).

3.6.12 The Guidelines for the Environmental Assessment of Road Traffic (IEMA 1993) sets out a methodology for assessing potentially significant environmental effects. In accordance with this guidance, the scope of assessment would focus on:

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

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

3.6.14 A cumulative assessment would take place typically where a proposed development has planning permission or consent under the Electricity Act 1989 and would have an impact on the study network of over 30% increase in traffic flows. These traffic flows would be included into the baseline flows used within the assessment.

3.6.15 Planning proposals that do not have planning permission or consent under the Electricity Act 1989 are not considered committed development and as such would not be included in the assessment.

3.6.16 The following rules taken from the guidance (IEMA, 1993) would be used as a screening process to define the scale and extent of the assessment:

- Rule 1: Include highway links where traffic flows are predicted to increase by more than 30% (or where the number of HGVs is predicted to increase by more than 30%); and
- Rule 2: Include any other specifically sensitive areas where traffic flows are predicted to increase by 10% or more.

3.6.17 Increases below these thresholds are generally considered to be insignificant given that daily variations in background traffic flow may fluctuate by this amount. Changes in traffic flow below this level predicted as a consequence of the Proposed Development would therefore be assumed to result in no discernible environmental impact and as such no further consideration would be given to the associated environment effects.

3.6.18 The estimated traffic generation of the Proposed Development would be compared with baseline traffic flows, obtained from existing traffic survey data, in order to determine the percentage increase in traffic.

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

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

Issues to be Scoped Out

- 3.6.21 The Proposed Development would not result in additional operational traffic flows and as such, it is proposed that the assessment of the operational phase is scoped out of the assessment.
- 3.6.22 As there are no Abnormal Indivisible Load (AIL) access required, no alterations to access junctions would be required and no AIL assessment would be required.

3.7 Cumulative Effects

- 3.7.1 The appraisal of cumulative effects would be considered in relation to the following environmental topics: Landscape and Visual; Ecology and Nature Conservation; Ornithology and Traffic. The individual topic based chapters within the EA would set out the justification for developments to be included in each of the topic based cumulative effects assessment, but **Table 3.1** lists the developments that are broadly considered to be relevant. Such developments typically include those for which consent has been granted, or future development for which it is reasonable to assume, at the date that the list of cumulative developments is frozen, that the developer will proceed with an application for consent. The final list of development to be considered in the cumulative effects assessment would be frozen three months prior to publication of the EA to allow sufficient time to compile the EA.

Table 3.1: Cumulative Developments

| Development Name and Type | Application Status |
|--|---|
| UGC works associated with the Proposed Development | These works would be classed as permitted development under Class 40 1(a) of The Town and Country Planning (General Permitted Development) (Scotland) Order 1992. |
| Dell Wind Farm | Section 36 application submitted to the Scottish Government's Energy Consents Unit in April 2020 (subject to variation). ³⁶ |
| Cloiche Wind Farm | Section 36 application submitted to the Scottish Government's Energy Consents Unit in April 2020. ³⁷ |

³⁶ ECU Application Reference: ECU00003440

³⁷ ECU Application Reference: ECU00002054

4. TOPICS TO BE SCOPED OUT OF ASSESSMENT

4.1 Introduction

4.1.1 This section provides the rationale for excluding certain environmental topic areas from further detailed work within the EA. The topics proposed to be scoped out of the EA would include:

- Cultural Heritage;
- Forestry;
- Socio-economics, Recreation and Tourism;
- Landuse and Agriculture;
- Population and Human Health;
- Air Quality and Climate Change; and
- Accidents and Disasters.

4.2 Cultural Heritage

4.2.1 Baseline information on known cultural heritage assets recorded within the vicinity of the Proposed Development has been obtained during the route and alignment selection stages of the project from datasets curated by Historic Environment Scotland and the Highland Historic Environment Record (HER), as well as the results of survey work carried out in advance of the Beaulay – Denny OHL replacement in 2004 – 2005 and the Stronelairg Wind Farm UGC connection in 2014. Desk-based evaluation, making use of all available archival material and historic mapping, indicates that the study area contains no permanent settlement, being used historically only for summer shielings and, later, sporting activities. This conclusion is supported by the results of field survey undertaken in June 2021 as part of the route and alignment selection stages of the project.

4.2.2 There are no designated assets within the area surrounding the Proposed Development. Designated assets within 3 km of the Proposed Development include two listed buildings, Garva Bridge (LB6900) and Garvamore Barracks (LB6899).

4.2.3 Within the vicinity of the Proposed Development and surrounding area, the following non-designated assets were identified during field survey:

- Allt na Creidh Leig, shieling site at NH 49102 04525
- Allt Gilbe, single shieling structure at NH 51042 96564
- Meall na h-Aisre fence line at NH 51290 00101

4.2.4 Of these three sites, only the Meall na h-Aisre fence line is located directly across the Proposed Development. Traversing the watershed over several miles and visible as iron posts and some rubble banking, this non-designated asset dates to the late 19th century and is a minor feature of Local significance and negligible sensitivity to the potential impacts of the Proposed Development.

4.2.5 The two shieling sites (Allt na Creidh Leig and Allt Gilbe) are both located adjacent to water courses, and are respectively 500 m and 100 m away from the Proposed Development. The Allt na Creidh Leig site consists of a small group of small structures while the Allt Gilbe site consists of only one small structure. Both of these non-designated sites, dating to the Early Modern period, are minor features of Local significance and negligible sensitivity to the potential indirect, visual impacts of the Proposed Development

- 4.2.6 Potential direct impacts are predicted for only one cultural heritage asset: the Meall na h-Aisre fence line. As a minor feature of Local significance it is of low sensitivity to impacts and, given that this feature is several miles in length and that any damage would be confined to a very small section, this sensitivity is reduced to negligible.
- 4.2.7 Detailed field survey has already been carried out within the whole of the Proposed Development through evaluations for Glendoe Hydro Scheme (C.Dagg 2002 EHG4333), Stronelaig Wind Farm (C.Dagg 2011, ENG4606), Stronelaig Wind Farm Buried Cable Grid Connection Route (C. Dagg 2014 EHG4697) and Glenshero Wind Farm (Headland Archaeology Ltd 2017, EHG5440) as well as additional field survey during the route and alignment stage for the Melgarve Cluster Project in June 2021. As such it is considered that no further site survey would be required.
- 4.2.8 It is not considered that the Proposed Development would give rise to any significant effects on designated heritage assets or significant direct impacts on non-designated heritage assets. As such, it is proposed that cultural heritage as an environmental topic should be scoped out of the EA for the Proposed Development.

4.3 Forestry

- 4.3.1 There is limited forestry within proximity to the Proposed Development. The Proposed Development does not intersect or come into close proximity to any forestry plantation.
- 4.3.2 Sherramore Forest, situated north-east of Melgarve substation, which includes pockets of native woodland is avoided by the Proposed Development by approximately 250 m. There is native woodland west of Melgarve substation, however, it is anticipated that this would also be avoided by the Proposed Development by approximately 350 m.
- 4.3.3 As the Proposed Development would not require felling of any commercial/native forestry plantation, there is no requirement for a forestry assessment to be undertaken.

4.4 Socio-economics, Recreation and Tourism

- 4.4.1 The economy within the region varies, though it is dominated by the tourism sector, with tourism related jobs representing up to 43% of regional employment.³⁸
- 4.4.2 There are a number of walking and cycling routes throughout the area, many of which are noted as Core Paths by THC or identified as Rights of Way and Wider Path Network paths. These include:
- Scottish Hill Track 235 (Laggan to Whitebridge) which passes to the east of the Proposed Development;
 - Scottish Hill Track 231 (Tomatin to Whitebridge) which passes to the north-east of the Proposed Development;
 - Scottish Hill Track 236 (Laggan to Fort Augustus by the Corrieyairack Pass) which passes along the glen to the south of the Proposed Development; and
 - 237 (Laggan to Roybridge or Glenfintaig Lodge (Spean Bridge)), which also passes along the glen to the south of the Proposed Development.

³⁸ Highlands and Islands Enterprise (2023) <https://www.hie.co.uk/our-region/our-growth-sectors/tourism/>

- 4.4.3 In addition, the main spine road of the Stronelaig Wind Farm is promoted by the South Loch Ness Access Group as part of the Monadhliath Trail between Fort Augustus and Whitebridge.
- 4.4.4 In terms of Hill Walking, the closest Munro is Geal Charn, which is approximately 21 km to the south of the Proposed Development. Two Corbetts (a mountain over 2,500 feet, but under 3,000 feet) are within the vicinity of the Proposed Development. These are Meall na h'Aisre approximately 1.5 km to the east and Gairbeinn, approximately 4.5 km to the west.
- 4.4.5 The Estates within the vicinity of the Proposed Development are managed for sporting activities (mainly grouse shooting and deer stalking), as well as some trout fishing.
- 4.4.6 The potential effects associated with the Proposed Development on socio-economic factors would be related to the construction phase, including the creation of jobs and the indirect effects to the local supply chain and businesses. Other potential effects on recreation and tourism assets of infrastructure projects such as this can relate to the temporary or permanent disruption to recreational activities and sites, associated visual effects, and the consequential impact the proposed works on tourism related businesses.
- 4.4.7 An Outdoor Access Plan would be prepared, a draft of which would be included within the EA, to demonstrate how continued access for recreational users along routes in the area would be managed during construction. The outdoor access plan would be prepared as part of the CEMP and signage would be erected at suitable locations to warn recreational users of construction traffic. The Applicant and Principal Contractor would consider the potential effects on tourism related businesses during the phasing of construction works. The potential for effects on the visual amenity of recreational and tourist receptors would be fully considered through the LVIA.
- 4.4.8 The Proposed Development would result in the creation of temporary jobs during the construction period. It is currently envisaged that a small proportion of the workforce would be from the local area. In addition, there would be potential beneficial effects through temporary increased spending on the supply of goods and services during construction. It is anticipated that these effects, while beneficial, are unlikely to be significant beyond the local area. In the long term, the Proposed Development would facilitate the increase in renewable generation planned for the area. These beneficial effects would be highlighted within the EA, however no separate assessment chapter is proposed to cover these issues.

4.5 Land Use and Agriculture

- 4.5.1 Areas of agricultural land are classified by The Macaulay System (now Hutton Institute) of Land Capability for Agriculture.³³ Based on this data the majority of the land within the vicinity of the Proposed Development is Class 6.3, land of very limited agricultural value.
- 4.5.2 Land use impacts associated with the Proposed Development are anticipated to be minimal. The construction work may result in some temporary loss of land or access restriction; however, it is considered that this can be adequately managed through wayleave agreements with the relevant landowners. The permanent loss of land to tower locations and cable sealing end compounds would be negligible and it would remain possible for grazing to continue around and under towers during their operational lifetime. It is thus proposed that this topic is scoped out of the EA in its entirety.
- 4.5.3 Dialogue would be maintained by the Applicant and the Principal Contractor with landowners throughout the construction period to ensure any potential disruption as a result of the proposed works is kept to a minimum.

4.6 Population and Human Health

4.6.1 The Proposed Development is located within a remote rural area. There are no main settlements that are within the general vicinity of the Proposed Development. The closest residential settlements are limited to include Fort Augustus, approximately 10 km to the west, and Laggan, located approximately 11 km southwest from the Proposed Development.

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

- Noise and vibration during the construction phase:
 - Construction noise and vibration would be short term and intermittent and could be controlled through the implementation of a noise management plan, which would be developed as part of the CEMP prepared by the Principal Contractor. As such, and given the remoteness of construction activity for much of the project, no detailed assessment of construction noise and vibration associated with plant noise or traffic is proposed as part of the EA.
- Operational effects of noise from the OHL:
 - Given the nature of the Proposed Development, its remoteness and distance from residential dwellings, no operational noise effects are expected..
- Electric and Magnetic Fields (EMF):
 - EMFs arise from electric charges and current flow. Transmission lines comply with the government policy of adopting the guidelines of the International Commission on Non-Ionising Radiation Protection (ICNIRP) on exposure to EMFs. SSEN believe that compliance with government policy on levels of exposure to EMFs, which in turn is based on the advice of the government's independent scientific advisers, the National Radiological Protection Board (NRPB) (now part of the Health Protection Agency), ensures the appropriate level of protection for the public from these fields. The NRPB keeps the results of EMF health studies under constant review to ensure that the guidelines for limiting exposure are based on the best available scientific information. It is therefore concluded that no likely significant effect on human health associated with EMFs is predicted, and it is therefore proposed to scope this out of the assessment in its entirety from the EA.
- Operational effects of additional electromagnetic interference to medium and long wave (AM) radio signals and TV signals:
 - Electromagnetic interference to medium and long wave (AM) radio signals at properties within close proximity to OHLs can be known to occur. Corona discharge is unlikely to cause significant interference to VHF reception (i.e. FM radio or digital radio and television which operate in the UHF range). Micro-gap discharge can affect digital television and radio reception, but is not considered to be a source of long term annoyance as equipment is built and maintained to high standards and any such discharge would be the subject of remedial action. It is therefore proposed to scope out impacts to digital television, digital radio and FM radio reception from the EA.
 - Potential effects from OHLs on TV signals can occur due to physical obstruction of the signal. The Proposed Development would not represent a significant obstruction and it is not anticipated that any adverse effects on TV reception would be experienced. The operation of high voltage OHLs can generate electromagnetic fields over a wide range of frequencies, from power (50 Hz) to radio frequencies. It is anticipated that the Proposed Development would emit low-level radio frequency interference (RFI) but that in practice little radio and television interference would arise, except when directly beneath the OHL. Therefore, this topic would be scoped out of the EA in its entirety.

4.7 Air Quality and Climate Change

- 4.7.1 Local air quality is a combination of background air quality, representative of general levels of pollution away from busy roads and industrial activity and added emissions from local emission sources such as road traffic. Due to the generally rural nature of the Proposed Development and sensitive receptors, contribution from road traffic and polluting industrial sources are minimal. Current and predicted annual average and short term NO₂ and PM₁₀ within the region are compliant with all applicable objectives.
- 4.7.2 Potentially significant effects which can arise on air quality and climate change from developments of this type relate primarily to generation and dispersal of dust and airborne particulate matter from plant, construction traffic and construction activities.
- 4.7.3 In the context of environmental appraisal, climate change is considered both in relation to the contribution of the proposed development to increasing or decreasing gaseous emissions with global warming potential (GWP), and in relation to climate change adaptation.
- 4.7.4 Emissions associated with the Proposed Development would be limited to temporary and short-term emissions of exhaust gases from vehicles and construction plant, and the potential for the release of carbon dioxide as a result of dewatering and exposing peat and peat soils during construction. Neither source is considered likely to be significant in terms of GWP.
- 4.7.5 With regard to climate adaptation, consideration would be given to the potential implications of climate change on the OHL design and the design of tower support structures (e.g. design for increased flood risk and adverse weather); however no potential for significant impacts have been identified.
- 4.7.6 The Proposed Development has limited potential to impact upon air quality. There is a potential to give rise to some localised and temporary construction related releases associated with dust and construction traffic exhaust emissions. However, the nature of construction activities means these would be localised, short term and intermittent. Potential effects would further be minimised through the implementation of mitigation measures, in particular the project CEMP and relevant GEMPs.
- 4.7.7 The Proposed Development would contribute to connecting renewable electricity generation capacity to the transmission network, in turn displacing emissions associated with fossil fuel-based electricity generation elsewhere.
- 4.7.8 As such, this issue is proposed to be scoped out of the EA .

4.8 Accidents and Disasters

- 4.8.1 Given the nature of the Proposed Development, the potential for effects related to the vulnerability to accidents and disasters are likely to be limited to those associated with unplanned power outages, due to extreme weather or structural damage. Crisis management and continuity plans are in place across the SSE Group. These are tested regularly and are designed for the management of, and recovery from, significant energy infrastructure failure events. Where there are material changes in infrastructure (or the management of it) additional plans are developed.
- 4.8.2 Furthermore, the Principal Designer would need to fully assess risks and mitigate as appropriate during the construction stage as part of the requirements of the Construction (Design and Management) Regulations (2015).
- 4.8.3 Potential effects relating to the vulnerability of the Proposed Development to accidents and disasters is therefore proposed to be scoped out of the EA in its entirety.

5. NEXT STEPS

5.1 Overview

5.1.1 The Applicant trusts that the foregoing demonstrates that the Proposed Development **is unlikely to give rise to significant residual environmental effects** and that, accordingly, would not be considered EIA development and thus would not be subject to an EIA and the preparation of an EIA Report.

5.1.2 However, it is proposed that an EA detailing the results of surveys, targeted appraisal work and any appropriate mitigation, would accompany a future application for Section 37 consent. The results of the EA would be submitted to the ECU, THC and Statutory Consultees.

5.1.3 Response to this formal request for an EIA Screening Opinion is welcomed in line with the statutory provisions as per Regulation 9 of the EIA Regulations.

5.1.4 All responses should be addressed to the Energy Consents Unit. If submitting a response, the Applicant would be grateful if you could also send a copy of responses to the address below:

Email to: teresa.jackson@sse.com

OR

For the Attention of Teresa Jackson
SSEN Transmission
Inveralmond House
200 Dunkeld Road
Perth, PH1 3AQ