

# Creag Dhubh to Dalmally 275 kV Overhead Line Connection

EIA Report: Volume 1:  
Non-Technical Summary  
April 2022



**RAMBOLL**



**Scottish & Southern**  
Electricity Networks

TRANSMISSION

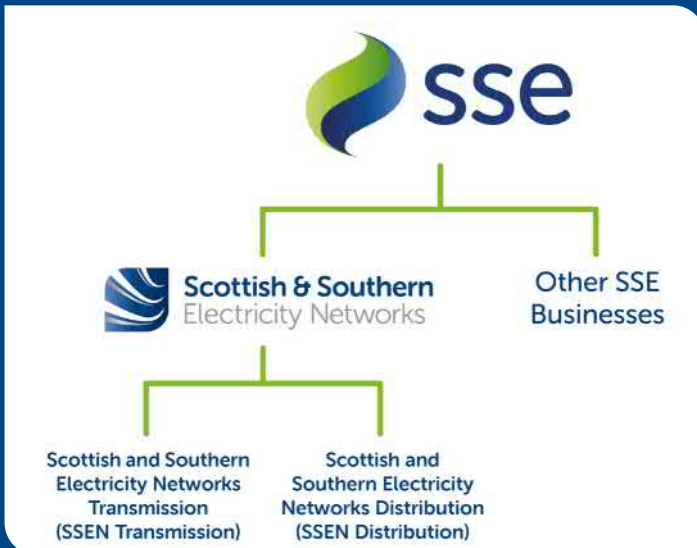






# Who we are

We are Scottish and Southern Electricity Networks, operating under licence as Scottish Hydro Electric Transmission Plc for the transmission of electricity in the north of Scotland.



## What is the difference between Transmission and Distribution?

Electricity Transmission is the transportation of electricity from generating plants to where it is required at centres of demand.

The Electricity Transmission network, or grid, transports electricity at very high voltages through overhead wires, underground cables and subsea cables. The transmission network connects large scale generation, primarily renewables, to central and southern Scotland and the rest of Great Britain. It also helps secure supply by providing reliable connection to the wider network of generation plans.

The Electricity Distribution network is connected into the Transmission network but the voltage is lowered by transformers at electricity substations, and the power is then distributed to homes and businesses through overhead lines or underground cables.

In total we maintain about 5,000 km of overhead lines and underground cables – easily enough to stretch across the Atlantic from John O'Groats all the way to Boston in the USA.

Our network crosses some of the UK's most challenging terrain – including circuits that are buried under the seabed, are located over 750 m above sea level and up to 250 km long.

The landscape and environment that contribute to the challenges we face also give the area a rich resource for renewable energy generation. There is a high demand to connect from new wind, hydro and marine generators which rely on Scottish and Southern Electricity Networks to provide a physical link between the new sources of power and electricity users. Scottish and Southern Electricity Networks is delivering a major programme of investment to ensure that the network is ready to meet the needs of our customers in the future.

## Our responsibilities

We have a licence for the transmission of electricity in the north of Scotland and we are closely regulated by the energy regulator Ofgem.

Our licence stipulates that we must develop and maintain an efficient, co-ordinated and economical system of electricity transmission.

## Overview of Transmission projects



# Project overview

The aim of the project is to reinforce the existing transmission network in the region to enable renewable energy projects to connect to the network and to ensure security of supply.

## Introduction

Scottish Hydro Electric Transmission plc (the Applicant) operating and known as Scottish and Southern Electricity Networks Transmission (SSEN Transmission) is proposing to construct and operate a 13.3 km double circuit 275 kV overhead line (OHL), supported by lattice steel towers between a proposed substation at Creag Dhubh to the existing Scottish Power Energy Networks (SPEN) 275 kV OHL that runs from Dalmally to Inverarnan, near Succoth Glen, via a Tie-In connection (the 'Proposed Development'). The location of the Proposed Development is presented on page 5.

## Environmental Impact Assessment

A voluntary Environmental Impact Assessment Report (EIA Report) has been prepared in support of the s37 application.

The purpose of the EIA is to inform the decision maker of the likely significant environmental effects of a Proposed Development, and to specify mitigation to avoid or reduce significant environmental effects.

The aim of this NTS (EIAR Volume 1) is to summarise the content and the main findings of the EIA Report in a clear and consistent manner to assist the public in understanding what the environmental effects of the Proposed Development are likely to be.

The full EIA Report provides a more detailed description of the Proposed Development, and the findings of the EIA.

- Volume 2: Main Report;
- Volume 3a: Figures;
- Volume 3b Visualisations; and
- Volume 4: Technical Appendices

## Further Information

The EIA report is submitted within the Section 37 application to the Energy Consents Unit (ECU). Electronic versions of the application, including the EIA are available to download from SSEN Transmission's website:

<https://www.ssen-transmission.co.uk/projects/creag-dhubh-dalmally-275kv-connection/>

The EIAR can also be viewed via the Energy Consents Unit's website:

[www.energyconsents.scot](http://www.energyconsents.scot)

This EIAR is available in other formats if required. For details, including costs, please contact:

Caitlin Quinn, Community Liaison Manager, M:07901135758, E:caitlin.quinn@sse.com, 1 Waterloo St, Glasgow, G2 6AY

Any representations to the s37 consent application may be submitted via:

- The Energy Consents Unit website at [www.energyconsents.scot/Register.aspx](http://www.energyconsents.scot/Register.aspx);
- By email to the Scottish Government, Energy Consents Unit mailbox at [representations@gov.scot](mailto:representations@gov.scot); or
- By post to the Scottish Government, Energy Consents Unit, 4th Floor, 5 Atlantic Quay, 150 Broomielaw, Glasgow, G2 8LU.

Written or emailed representations should be dated, clearly stating the name (in block capitals), full return email and postal address of those making representations, identify the Proposed Development (Creag Dhubh to Dalmally 275 kV Connection) and specify the grounds for representation. Only representations sent by email to [representations@gov.scot](mailto:representations@gov.scot) will receive acknowledgement.

The closing date for representations will be published on the ECU and SSEN Transmission's websites (addresses provided above).

Biodiversity Net Gain is a process which leaves nature in a better state than it started. In line with SSEN Transmission's Sustainability Strategy <https://www.ssen-transmission.co.uk/sustainability-and-environment/sustainability-strategy/>, a BNG assessment will be completed following submission of the s37 Application.



# Project Description

**The Proposed Development consists of a 13.3 kilometre (km) double circuit 275 kV OHL, supported by lattice steel towers, between a proposed substation at Creag Dhubh to the existing SPEN 275 kV OHL that runs from Dalmally to Inverarnan, near Glen Lochy (Succoth Glen) in Argyll and Bute.**

The original transmission network in Argyll and Bute was constructed over 60 years ago and designed to transmit electricity to consumers in rural areas of low-density population. As the UK strives for Net Zero (achieving a balance between the greenhouse gases put into the atmosphere and those taken out), there has been a significant increase in requests for wind farm developments in the area to be connected to the electricity transmission network. There is therefore a requirement for SSEN Transmission to increase its network capability in Argyll and Kintyre, beyond that already under current construction and public development, to enable the connection of further renewable generation and to export to the wider network. This group of works designed to deliver the required increase in network capacity has been named the 'Argyll and Kintyre 275 kV Strategy'.

As the transmission license in the north of Scotland, we have a legal duty to provide connections for new electricity generators wishing to connect to the electricity transmission network in the Argyll and Kintyre peninsula area. The Proposed Development forms part of this strategy and would facilitate the increase in renewable energy generation and to ensure security of electricity supply to the region.



## Description of Development

The Proposed Development would primarily comprise:

- A 13.3 km double circuit 275 kV OHL, supported by lattice steel towers between a proposed substation at Creag Dhubh to the existing SPEN 275 kV OHL that runs from Dalmally to Inverarnan, near Glen Lochy (Succoth Glen);
- A Tie-In connection involving the proposed OHL being connected to the existing SPEN 275 kV OHL, known as the YW route, via a new terminal tower (T48/YW17R) located between existing SPEN Towers YW17 and YW18, from the proposed T47.

It is anticipated that the construction of the Proposed Development would commence in 2023 (subject to consents and approvals being granted). A provisional construction period of 30 months is anticipated, with energisation of the project scheduled for 2025. Works would be co-ordinated to minimise disruption to consumers.

### *Limit of Deviation*

The Limit of Deviation (LOD) is an area within which the OHL infrastructure can be constructed. The purpose of the LOD is to allow flexibility in the consent for the final position of individual towers, allowing towers and access tracks to be micro-sited to respond to localised ground conditions, engineering and environmental constraints. The horizontal LOD parameter established for this development, allows towers to be relocated up to 100m either side of the indicative proposed alignment and 50m for the access tracks. A vertical LOD parameter is set to allow an increase of up to 20% of the tower height specified in Technical Appendix 2.1 in Volume 4 of the EIA Report.

The EIA Report provides an assessment of the likely significant environmental effects based on the proposed tower schedule. The application of the LOD would be limited to the variation of tower and access track positions (including height for towers) that do not result in adverse change to the level of significance of effects on the environment as detailed in the EIA Report. Any utilisation of the LOD would be evaluated against the level of significance of effects reported in the EIA Report. Should the evaluation identify an adverse change to the level of significance identified in the EIA Report, consultation would be carried out with Argyll and Bute Council (and any relevant statutory consultees) for approval of the proposed change.

### *Ancillary Works*

Ancillary works for the construction and maintenance of the OHL, include vegetation management, temporary OHL diversion, undergrounding of existing LV lines, construction of new access tracks (temporary and permanent), tower working areas, formation of bellmouths, provision of a satellite dish and road and other infrastructure alterations.

### *Adjacent SSEN Developments*

The proposed Creag Dhubh substation is the subject of a separate application for planning consent supported by stand-alone environmental information, and therefore does not form part of the Proposed Development being assessed for the purposes of this EIA.

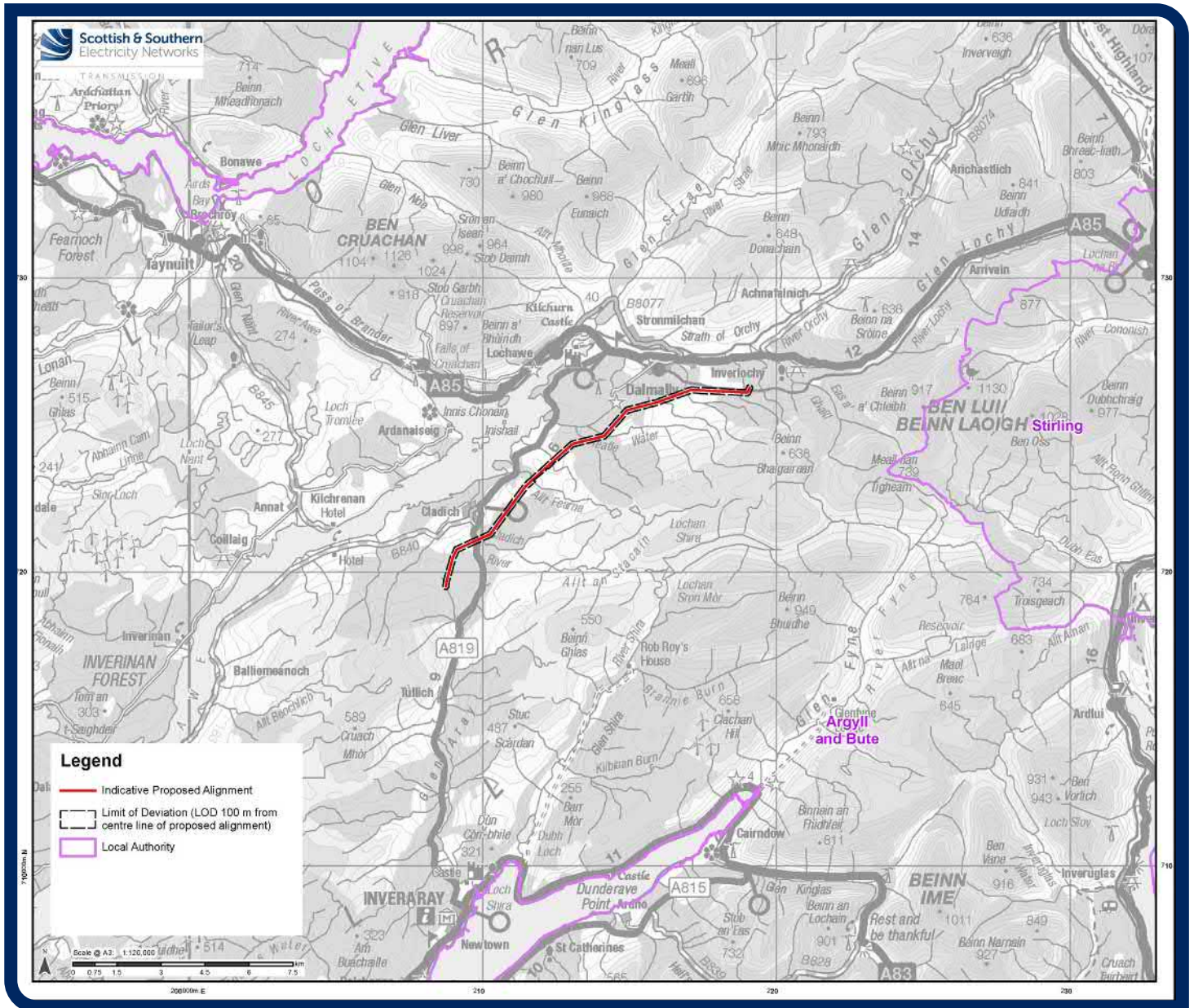
Tie in works for the existing 132 kV Inverary to Taynuilt line and associated temporary diversion at Creag Dhubh Substation (the ITE/ITW Tie-in Connection Project) will also form a separate S37 application and do not form part of the Proposed Development being assessed for the purposes of this EIA.





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# Site Location



# Construction Phases

The Proposed Development would be carried out in four phases, described below.

## Phase 1 Enabling Works

Enabling works would comprise:

- Existing distribution network assets would be undergrounded to make way for the Proposed Development,
- Forestry removal to allow for construction, safe operation and maintenance, and
- Provision of new access tracks (temporary and permanent) and upgrades to existing access tracks.

## Construction Hours of Work

Construction activities would in general be undertaken during daytime periods. For weekdays, this would involve work between approximately 07:00 to 19:00 in the summer and 07:30 to 17:00 (or as daylight allows) in the winter. At weekends, the working hours would be approximately 07:00 to 17:00 in the summer and 07:30 to 17:00 (or as daylight allows) in the winter.

## Construction Traffic

Construction traffic comprises staff journeys and vehicle movements to build access tracks, deliver and collect materials and transport construction plant to tower locations. The Principal Contractor would prepare a Construction Traffic Management Plan, which would be agreed by Argyll & Bute Council. This document would set out the measures to reduce impacts of construction traffic on the road networks.

## Outline Construction Environmental Management Plan

An outline Construction Environmental Management Plan (CEMP) has been prepared as part of the EIA. The CEMP will detail how the Principal Contractor will manage the site in accordance with all environmental commitments and mitigation detailed in the EIA and will include information on statutory consents and authorisations, and industry best practice and guidance.

## Operation Management and Maintenance

Once operational, regular routine inspections would be undertaken to identify any issues with the components as well as ongoing vegetation management within the operational corridor. However, in general the OHL would require very little maintenance.

## Decommissioning

The Proposed Development would not have a fixed operational life. It is assumed that the Proposed Development would be operational for 50 years or more. The effects associated with the construction phase can be considered representative of worst-case decommissioning effects, and therefore no separate assessment is provided in the EIA.

## Phase 2 OHL Construction

The construction phase would comprise the following key activities:

- Detailed geotechnical investigation at each tower position and micro-siting, if required, to confirm final tower position and type of foundation.
- Tower foundation preparation with foundations estimated to be up to 2.5 m below ground level and up to 4 m depth, where ground conditions require.
- Establish tower construction working areas of approximately 2500 m<sup>2</sup> (50 m x 50 m) for section towers and 6400 m<sup>2</sup> (80 m x 80 m) for angle towers.
- Tower assembly with steelwork delivered to each tower site either as individual steel members or as prefabricated panels.
- Tower stringing with stringing equipment including winches, tensioners and ancillary equipment set out at either end of pre-selected sections of the OHL.

## Phase 3 OHL Commissioning

The commissioning phase involves an inspection and snagging process, conducted by SSEN Transmission and the Principal Contractor, to check the works have been built to specification and are fit to energise.

The Proposed Development would also go through a commissioning procedure for the switchgear, communications, and protection controls through the proposed substation at Creag Dhubh. The circuits would then be energised.

## Phase 4 OHL Reinstatement

Following commissioning of the Proposed Development, all construction sites would be reinstated. Reinstatement would form part of the contract obligations for the Principal Contractor and would include the removal of all temporary access tracks, all work sites around the tower locations and the re-vegetation of all construction compounds. The Principal Contractor would be required to provide a Reinstatement plan prior to reinstatement works commencing.



# Consideration of Alternatives

## The reasonable alternatives studied and the reasons for selecting the final option.

The EIA Regulations require reasonable alternatives, relevant to the Proposed Development, to be studied and the reasons for selecting the final option to be provided by SSEN Transmission.

Stakeholder consultation (see image on Page 9) and engagement has been undertaken throughout the development process, with advice from key consultees being sought early in the design stage to inform decisions about the Proposed Development.

The following alternatives have been considered:

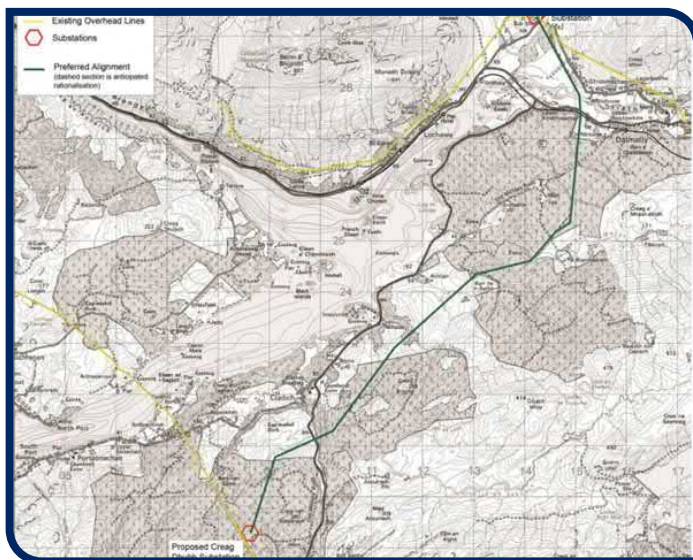
- **The “Do Nothing” Scenario;** Discounted. Would result in current capacity limitations remaining, failure to deliver on SSEN Transmission’s obligations as network operator, and failure to support future renewable energy developments and Scotland’s commitments to reducing carbon emissions and tackling climate change.
- A new 275 kV connection between the proposed Creag Dhubh substation and the existing Dalmally to Inverarnan 275 kV overhead line. Three connection options were identified between 2016 and 2021:

### Option 1: Overhead Line from Creag Dhubh to Dalmally Substation.

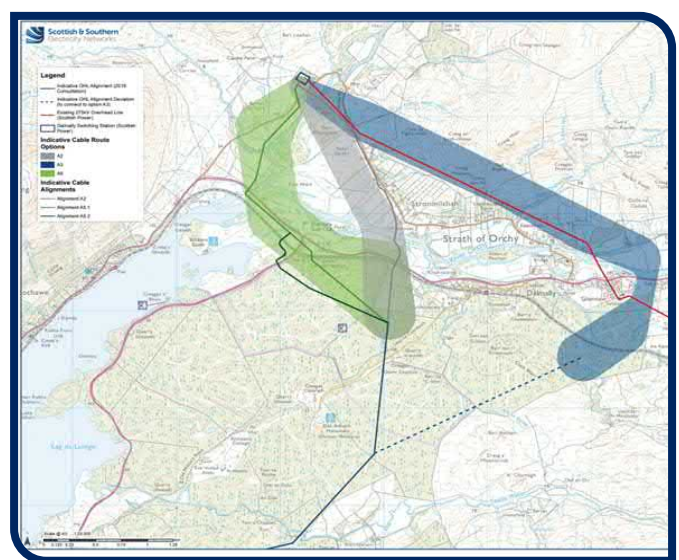
Discounted. The preferred option in 2018. However, following consultation feedback (2018), which confirmed continued objection, SSEN Transmission committed to further assessing undergrounding across the Strath of Orchy.

### Option 2: Overhead Line from Creag Dhubh combined with Underground Cable Connection from Croftintuime to Dalmally Substation.

Discounted. Addressed the residential visual amenity concerns raised for Option 1. However, the assessment identified high risks associated with road and railway crossings, flooding and challenging ground conditions. SSEN Transmission decided to evaluate alternative options that would address visual concerns raised by the community, without the risks associated with an underground cable connection.



Option 1: Overhead Line from Creag Dhubh to Dalmally Substation

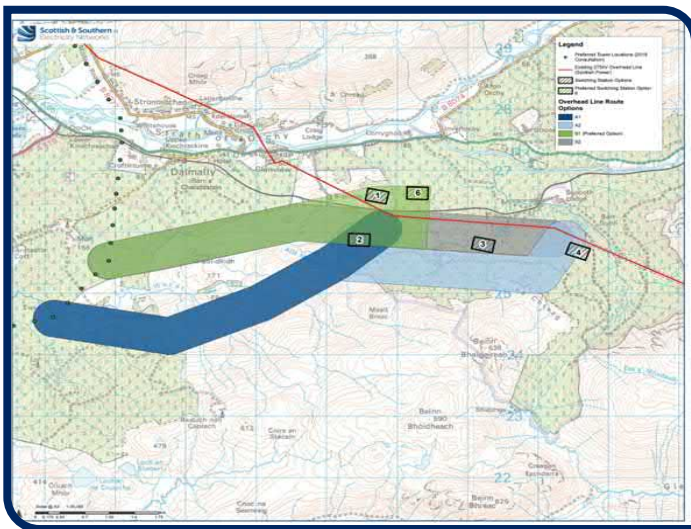


Option 2: Overhead Line from Creag Dhubh combined with Underground Cable Connection from Croftintuime to Dalmally Substation.

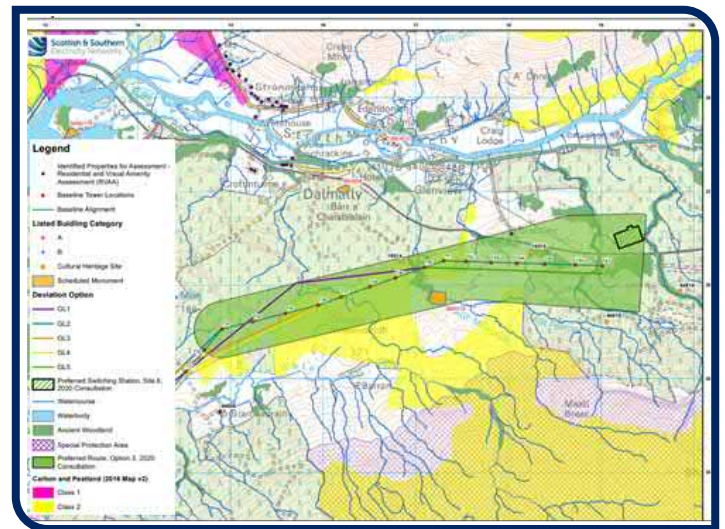


# Consideration of Alternatives

**Option 3: Overhead Line from Creag Dhubh turning east at Duncan Ban MacIntyre Monument to a new Switching Station in Glen Lochy.**  
Discounted. Option 3 reduced landscape and visual impacts, engineering challenges and pollution risks associated with the other options and was considered the preferred option. Following consultation discussions with Scottish Power Energy Networks (SPEN) an amendment to the proposed design was agreed. This comprised the removal of the proposed Glen Lochy Switching Station to be replaced with a Tie-in connection between the proposed OHL from the proposed Creag Dhubh Substation to SPEN's existing OHL, at Glen Lochy (Succoth Glen) (the Proposed Development). This is presented as Option 4: Tie-In Connections to Connect to Existing SPEN OHL.



Option 3: Overhead Line from Creag Dhubh turning east at Duncan Ban MacIntyre Monument to a new Switching Station in Glen Lochy - route option selection.

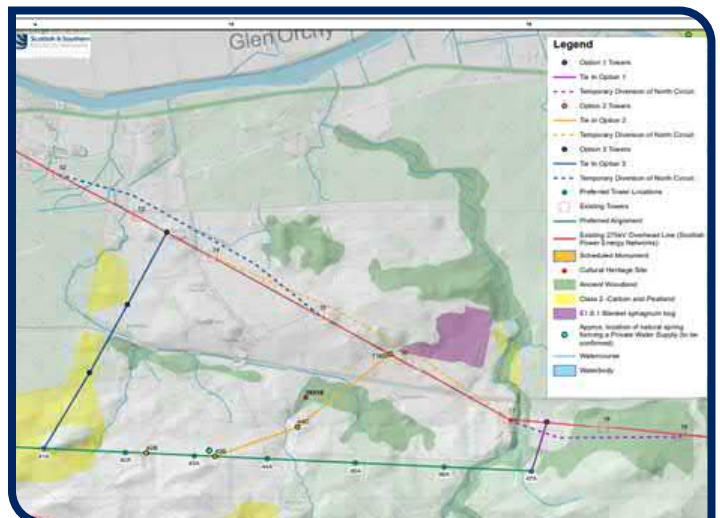


Option 3: Overhead Line from Creag Dhubh turning east at Duncan Ban MacIntyre Monument to a new Switching Station in Glen Lochy - alignment selection.

## Option 4: Tie-In Connections to Connect to Existing SPEN OHL – The Final Option being taken forward for consent.

Option 4 reduces landscape and visual impacts, engineering challenges and pollution risks associated with the other options.

This option removes the need for Glen Lochy (Succoth Glen) switching station, instead towers and wires will provide the connection between the proposed development and the existing SPEN OHL tie-in connection 1 will connect the proposed OHL to the existing SPEN OHL between T47 and SPEN Tower Y17A/Y17B. This will be carefully designed to mitigate the challenging terrain and avoid ancient woodland, where possible. Therefore Option 4 is being taken forward as the proposed indicative alignment.



Option 4: Tie-In Connections to Connect to Existing SPEN OHL – The Final Option being taken forward for consent.



# Consideration of Alternatives





# Potential Environmental Effects

**EIA is a process that identifies the potential environmental effects (both beneficial and adverse) of a Proposed Development and proposes mitigation to avoid, reduce and offset any adverse environmental effects.**

Mitigation measures are recommended to prevent, reduce or remedy any potential adverse environmental effects identified. Following the implementation of mitigation measures, an assessment of the significance of any residual effects is undertaken.

The EIA considered the environmental impacts across a range of factors, in accordance with the EIA Scoping Opinion issued by the Energy Consents Unit on 8th March 2022. The conclusions of the EIA are that potential likely significant effects were identified for a number of topics (see bullet list below). However these would be reduced to a non-significant level through the application of mitigation. The only exception to this is for landscape and visual; and a cultural heritage impacts where some significant residual effects would remain.

- Biodiversity;
- Ornithology;
- Landscape Character and Visual Impact;
- Cultural Heritage;
- Hydrology, Hydrogeology, Geology and Soils;
- Forestry;
- Noise and Vibration; and
- Traffic and Transport;

The EIA has also considered the potential for cumulative environmental impacts arising as a result of the Proposed Development in-combination with other reasonably foreseeable schemes (inter cumulative effects), as well as the combined or synergistic effects caused by the combination of a number of effects from the Proposed Development on a particular receptor (intra cumulative effects).

## Landscape and Visual Impact Assessment (LVIA)

The LVIA considers effects on landscape fabric, landscape character and visual amenity. Baseline conditions were established through a desk-based review of existing information and consultation with ABC and NatureScot to confirm viewpoint (VP) locations for sensitive receptors. Desktop findings were verified and augmented by targeted field surveys and all key sensitive receptor locations were visited.

### Baseline / Potential Receptors

The landscape encompassing the Proposed Development is typified by a complex series of irregular dramatic topographical mountains with rocky outcrops to low-lying hollows and glens. Loch Awe is a key water feature and in the south east, the northern shores of Loch Fyne extend partially into the study area. Areas of broadleaved woodland are present across lower hill sides and along the shoreline of Loch Awe. Commercial forestry is a dominant feature in the landscape and a main land use.

- Visual receptors. Including residents of Dalmally and Cladich, which will have full or partial views of the OHL, individual properties, tourists, walkers and cyclists.
- Designated landscapes: Including the Loch Lomond and Trossachs National Park (LLTNP), and Areas of Panoramic Quality (APQs).
- Non-designated landscapes: Including Wild Land Areas (WLAs) and Gardens and Designed Landscapes (GDLs).

### Potential Effects

The main source of impact would be from the proposed towers and construction of new temporary and permanent access tracks. These require the removal of commercial forestry, heather moorland, and other vegetation. Careful routing of the Proposed Development during the design stage mitigated these effects by endeavouring to avoid the most sensitive landscape and visual receptors to minimise potential significant landscape and visual effects. There would be direct, significant residual effects on the fabric and host landscape character within the immediate area of the OHL steel lattice towers during construction and operation. These significant effects would be highly localised, and the level of effect would reduce substantially over a short distance from the proposed development.

Significant adverse residual visual effects were identified at one VP location:

- VP11 Duncan Ban McIntyre monument, where the Proposed Development would be prominent in views to the south/ southeast (see image on Page 12).

### Residential and Visual Amenity Assessment (RVAA)

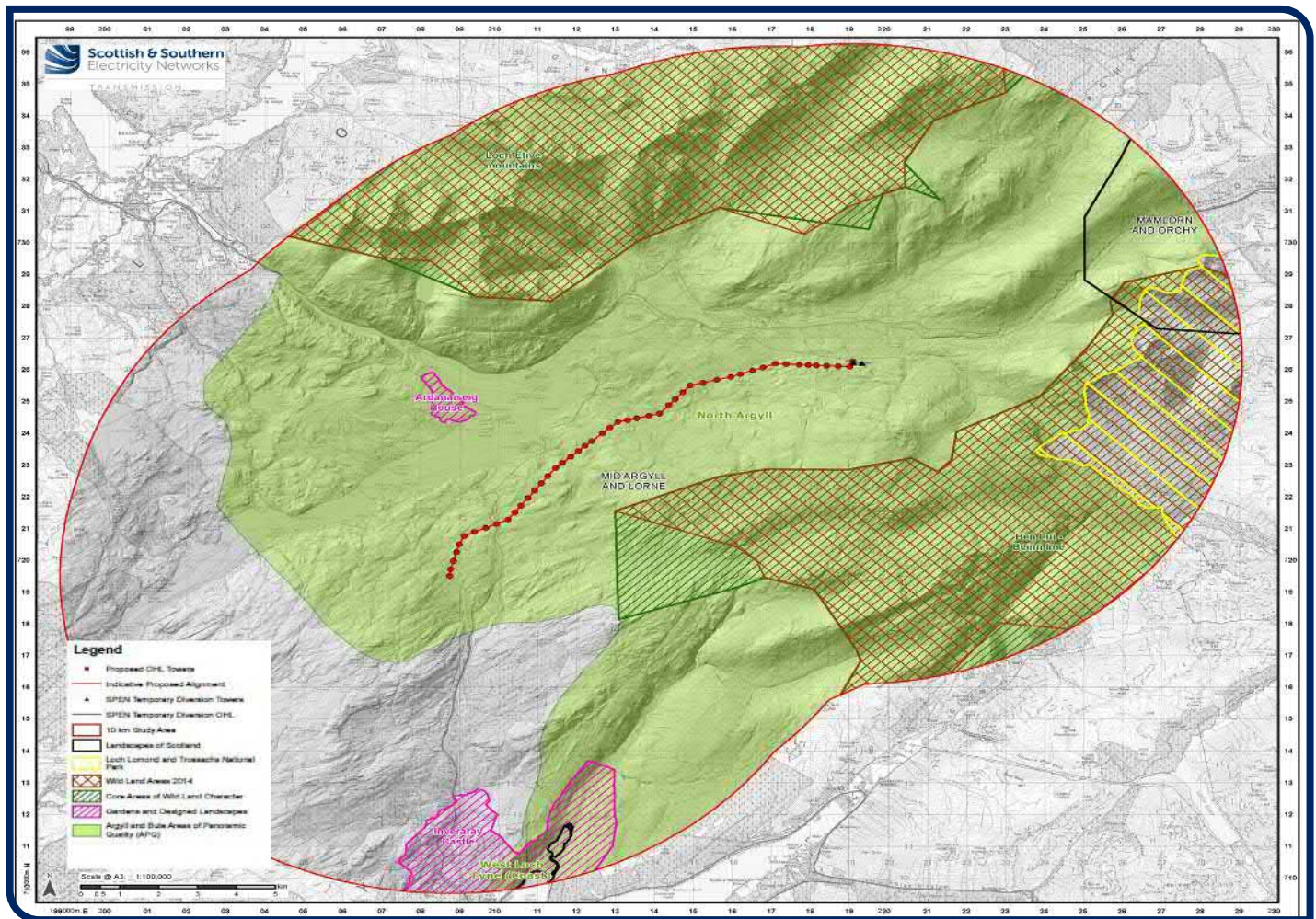
A total of 5 properties were included in the RVAA, agreed with ABC. The closest property is 450 m north of the Proposed Development.

The Proposed Development would result in significant visual effects at a number of the properties considered in the RVAA, however these effects were not considered likely to prove "overbearing, overwhelming, pervasive or oppressive."



# Potential Environmental Effects

This section summarises the key findings of the EIA and the significance of potential effects.



Landscape Designations



VP11 Duncan Ban McIntyre monument, where the Proposed Development would be prominent in views to the south/ southeast

# Potential Environmental Effects

## Biodiversity and Ornithology

The EIA has considered potential impacts and their associated effects on ecological features (including designated nature conservation sites, habitats, and protected species) as well as on birds and bird related features (including sites designated for breeding birds and other protected bird species) in line with Chartered Institute of Ecology and Environmental Management (CIEEM) guidance. Baseline conditions have been collected through desk-based review of existing information, consultation with relevant statutory and non-statutory bodies and habitat and protected species surveys.

### Biodiversity

#### Baseline Habitat

The dominant habitats are coniferous woodland plantation, wet modified bog and semi-improved acid grassland. Potential Groundwater Dependent Terrestrial Ecosystems (GWDTEs) were recorded throughout the field survey area. Protected species surveys identified the presence of Bat Roost Potential (BRP) trees, badger *Meles meles*, water vole *Arvicola amphibius*, otter *Lutra lutra*, pine marten *Martes martes*, red squirrel *Sciurus vulgaris*, common lizard *Zootoca vivipara*, common frog *Rana temporaria*, and common toad *Bufo bufo*.

#### Potential Significant Effects

Without the application of mitigation, significant effects would likely include, felling approximately 12.62 ha of Ancient Woodland, degradation of peatland habitats (wet heath and flushes), removal of trees with BRP, degradation of water vole and otter habitat. Following the application of mitigation, such as native woodland retention measures, on-site and offsite compensatory planting, peatland restoration, habitat reinstatement, a Construction Environmental Management Plan (CEMP), pollution prevention measures, and inspection of BRP trees to be felled, no significant residual effects are predicted. Following completion of the Proposed Development (including reinstatement work), residual adverse effects are anticipated for the longterm (approximately 10 to 20 years) until woodland has re-established. Woodland planting for Ancient Woodland is not a like-for-like replacement as Ancient Woodland is an irreplaceable resource. Compensatory planting areas are likely to establish as functional young woodland over at least 50 years. However, it would take far longer to provide a comparable offset for the loss of Ancient Woodland. As a result, a long-term significant adverse residual effect would remain for the loss of Ancient Woodland until such time as the replacement woodland areas are fully established and functional (from 80-100 years). Significant cumulative adverse effects are also predicted on Ancient Woodland between the surrounding cumulative developments and the Proposed Development.

### Ornithology

#### Baseline Habitat

The Glen Etive and Glen Fyne Special Protection Area (SPA), which is designated for Golden Eagle (*Aquila chrysaetos*), borders the proposed development, for approximately 1 km, between towers 18 and 23 near Achlian Farm. The closest point to the SPA is 40 m, between Towers 20 and 21.

The Proposed Development runs between two golden eagle territories, one with an active nest location to the north and another with an active nest to the south east. These territories have potential connectivity with the Proposed Development. Surveys recorded low levels of golden eagle flight activity and no significant impacts on the species, or the SPA are predicted. Field surveys recorded black grouse leks at five locations within the Ornithological Field Survey Area and territories were identified of whitetailed eagle and hen harrier as well as likely territories of goshawk and honey buzzard.

#### Summary of Assessment

Impacts on these features would be mitigated by adhering to Species Protection Plans and monitoring to be undertaken by the Ecological Clerk of Works. A section of line marking is required to avoid collision risk on white-tailed eagle.

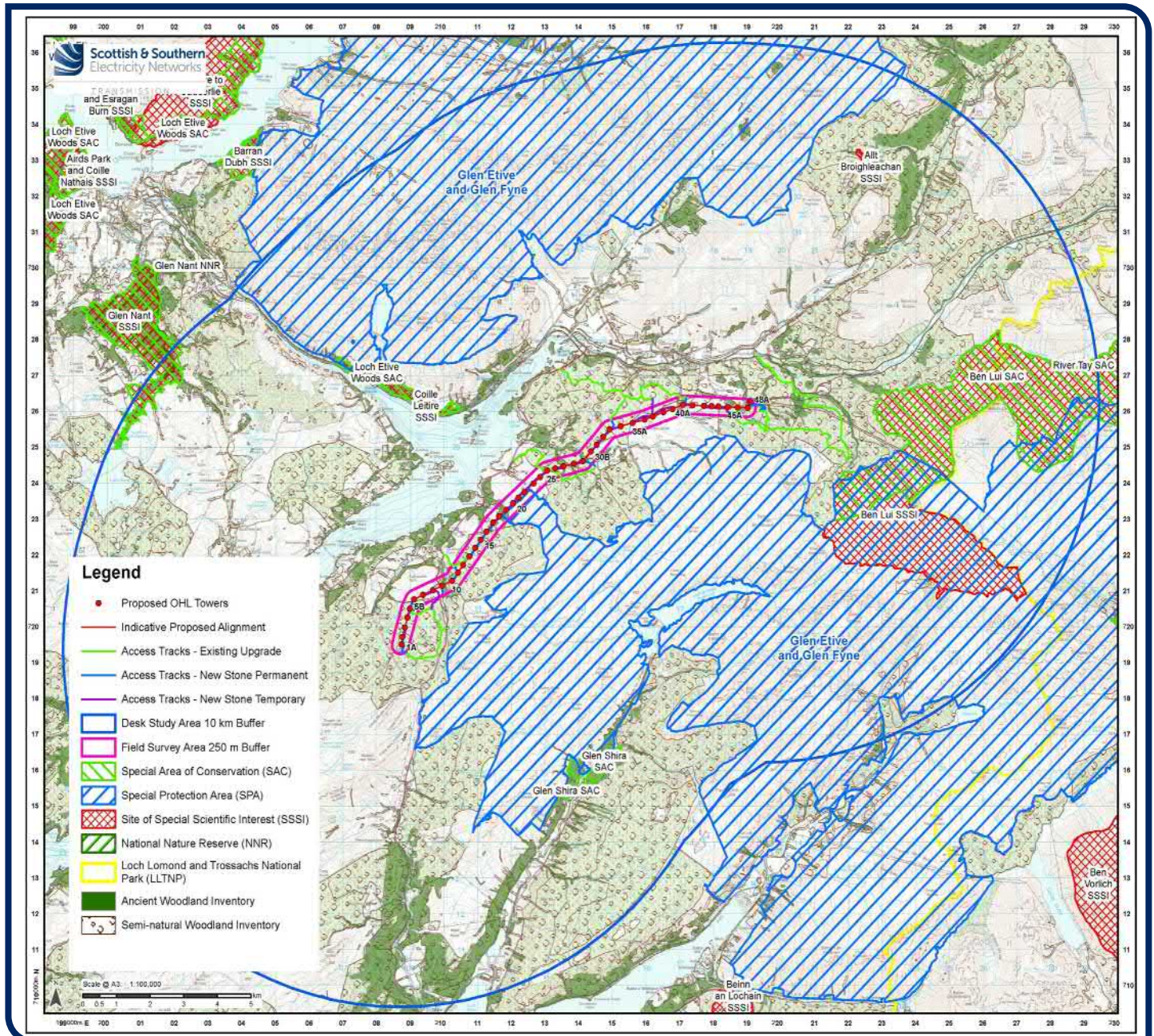
No significant residual impacts or cumulative impacts on ornithological features are predicted.







# Potential Environmental Effects



## Biodiversity Constraints



# Potential Environmental Effects

## Forestry

The forestry assessment has considered potential impacts and their associated effects on the forestry resource, forest management and forest access during construction and operation. The desk study comprised consultation with Scottish Forestry and landowners and review of existing forest data provided by the landowners on woodland type (species/age class) and the existing woodland management regime. Field surveys were undertaken to confirm the extent of woodland areas affected by the Proposed Development and assess the current woodland characteristics.

In total, approximately 7.92 km of the 13.3 km Proposed Development is within woodland and associated open ground, where tree clearance would be required to form an Operational Corridor.

### Classifications

Three Woodland Habitat Types were identified during surveys (areas provided in brackets show the identified woodland areas e.g. areas to be felled):

- Broadleaved semi natural woodland (12.62 ha)
- Broadleaved plantation woodland (0.36 ha)
- Coniferous plantation woodland (51.19 ha)

The native broadleaved woodland areas are identified on the Scottish Government's Ancient Woodland Inventory. The routeing and alignment process sought to avoid woodland where possible, while taking account of other environmental, technical and cost constraints. The Proposed Development would pass through 7.92 km of woodland, and potentially impact on up to 64.17 ha of woodland.

### Summary of Assessment

The loss of predominately low sensitivity coniferous woodland (51.19 ha) equates to approximately 0.03% of the regional resource (Argyll & Bute Council area). The Proposed Development would result in an impact on up to 12.98 ha of more sensitive ancient semi-natural woodland, of which 12.62 ha is categorised as semi-natural woodland. In the context of the regional resource, 12.62 ha would equate 0.04% loss. The effects of woodland removal, in forestry terms, were assessed as not significant, due to the low magnitude of change in the context of the regional resource, and the low to medium sensitivity of the types of woodland present in the study area. The effect on the ancient semi-natural woodland of mixed native broadleaves classification were assessed as significant based on the impact of a noticeable change over a limited area. No mitigation is deemed necessary to address the direct woodland loss in forestry terms.

However, SSEN Transmission is committed to seeking to reduce the ecological effects, that would arise through the loss of ancient semi-natural woodland through the sensitive management of the Operational Corridor. No significant effects on forest access were identified. The development of compensatory planting scheme agreements will be progressed with landowners within the regional land boundary of Argyll & Bute Council. This is to mitigate the woodland removal of the Proposed Development to meet the Scottish Government's CoWRP objective of no net loss of woodland. On this basis the Applicant will replant the area quantity (64.17 ha) of woodland that will be removed for the Proposed Development.



Drone view between T1 and T6

# Potential Environmental Effects

## Cultural Heritage

The EIA has assessed the potential impacts and their effects on archaeology and cultural heritage interests (hereafter 'heritage assets') associated with the construction and operation of the Proposed Development. Desk based assessment was conducted using documentary, archival and bibliographic sources, alongside consultation with Historic Environment Scotland (HES), ABC and West of Scotland Archaeology Service (WoSAS). Targeted field survey was carried out to inspect previously recorded heritage assets identified during the desk-based assessment.

### Heritage Assets Inner and Outer Study Areas

A total of 31 heritage assets (sites and features) have been identified within the Inner Study Area (comprises a 200 m wide corridor centred on the proposed OHL and a 100 m wide corridor centred on the proposed access track locations). The majority of these are associated with medieval or later settlement and agricultural activities. Field survey indicates that medieval/post-medieval settlement and cultivation remains survive within open moorland and rough pasture areas that have seen little modification or development since the 19th century and it is considered that there is a medium to low potential for further buried archaeology to survive in these areas. In areas where the Proposed Development crosses commercial forestry plantation the potential for hitherto undisturbed archaeological remains to survive is negligible.

The Inner Study Area has no designated Scheduled Monuments (SM) or Listed Buildings (LB), Conservation Areas (CA), Inventory Garden and Designed Landscape (GDL), or Historic Battlefield (HB).

The Outer Study Area (comprises 5 km radius from the proposed development) has twenty-four Scheduled Monuments, two Category

A Listed Buildings, four Category B Listed Buildings, two Category C Listed Buildings, one Inventory Garden and Designed Landscape (GDL), and four NSR Sites, from which there is theoretical visibility of one or more elements of the Proposed Development.

### Summary of Assessment – Inner Study Area

There is potential for construction works within the Inner Study Area to cause direct effects on 14 heritage assets. A total of nine heritage assets lie within the LOD and could be affected by micro-siting of towers or access tracks. In the absence of mitigation, two of these are assessed as being potentially of moderate significance. The other impacts are assessed as being not significant.

Mitigation measures have been set out in the EIA that would avoid or reduce the predicted effects and residual effects of no more than minor significance (not significant in EIA terms) have been identified.

### Summary of Assessment – Outer Study Area

The assessment has resulted in the identification of moderate significance effects on the settings of three Scheduled Monuments; Auchtermally or Uachdar Mhaluidh, Deserted Township (SM 4019), Tom a'Chaisteal dun (SM 4209) and Dychlie, deserted crofts (SM 5149) and one Category B Listed Building; Duncan Ban McIntyre Monument (LB 12167). However, the monuments would not be isolated from their surroundings, nor would their settings be appreciably fragmented. It would remain possible for any visitor to the monuments to understand and appreciate their settings. As such, the integrity of the settings of the monuments and their capacity to inform and convey their cultural significance, will not be compromised.

The cumulative effect of the Proposed Development in combination with other cumulative developments in the vicinity is considered not significant.



Kilchurn Castle

# Potential Environmental Effects

## Traffic and Transport

The EIA has considered the potential traffic and transport effects associated with the construction and operation of the Proposed Development on the surrounding public road network and sensitive receptors. The traffic and transport Study Area characteristics have been determined by desk-based assessment, commissioned automatic traffic counters (ATC) and publicly available annual average daily traffic (AADT) count data from the Department for Transport (DfT).

The main transport routes which will be impacted by the Proposed Development are the A85 Trunk Road, the A819, the A83 Trunk Road and the B840. Construction traffic would comprise construction staff in private cars, and HGVs / LGVs carrying construction materials, personnel, and plant equipment.

The following approximate vehicle movements will be required:

- 26,782 two-way trips in HGVs
- 79,200 two-way trips in cars or LGVs
- 3,960 two-way movements of forestry and peat HGV movements are expected across six months.

The assessment of the potential environmental effects concludes that the impact to the road links within the Study Area is minor or negligible, and the significance of effect is considered to be Not Significant throughout.

The Proposed Development would be undertaken in parallel with the construction of the proposed Creag Dhubh Substation. The Study Area for the substation overlaps with the Proposed Development. As a result, there are potential in-combination effects because of increased traffic movements in the Study Area. The assessment of cumulative impacts with neighbouring developments are minor or negligible and Not Significant throughout.

Whilst no mitigation is required, the Applicant will implement a Construction Traffic Management Plan (CTMP) as a good practice measure to ensure the impact of the Proposed Development, and of other developments acting cumulatively, on the public road network are minimised as far as practicable. The CTMP will identify the programme of works, the agreed routes to site, details of a site Liaison Officer who would have responsibilities for managing traffic and transport impacts and effects and will also identify measures to manage / reduce construction staff travel by private car, particularly single occupancy trips.

## Hydrology, Hydrogeology, Geology and Soils

The EIA has considered potential impacts and their associated effects on rivers, other surface water and groundwater features, water resources including public and private water supplies, soils and peatland. Baseline conditions have been collected through a desk-based review of existing information, consultation with the Scottish Environment Protection Agency (SEPA), Scottish Water and ABC to identify water abstractions, private water supplies and to discuss peat management.

A field survey of the watercourses that would be crossed by the Proposed Development was undertaken to determine the hydrological context and gain a more detailed understanding of the sensitivities associated with the main watercourses. Peat depth probing was undertaken within the Proposed Development area in March 2021, August 2021, and November 2021.

### Sensitive Receptors

A number of sensitive receptors have been identified:

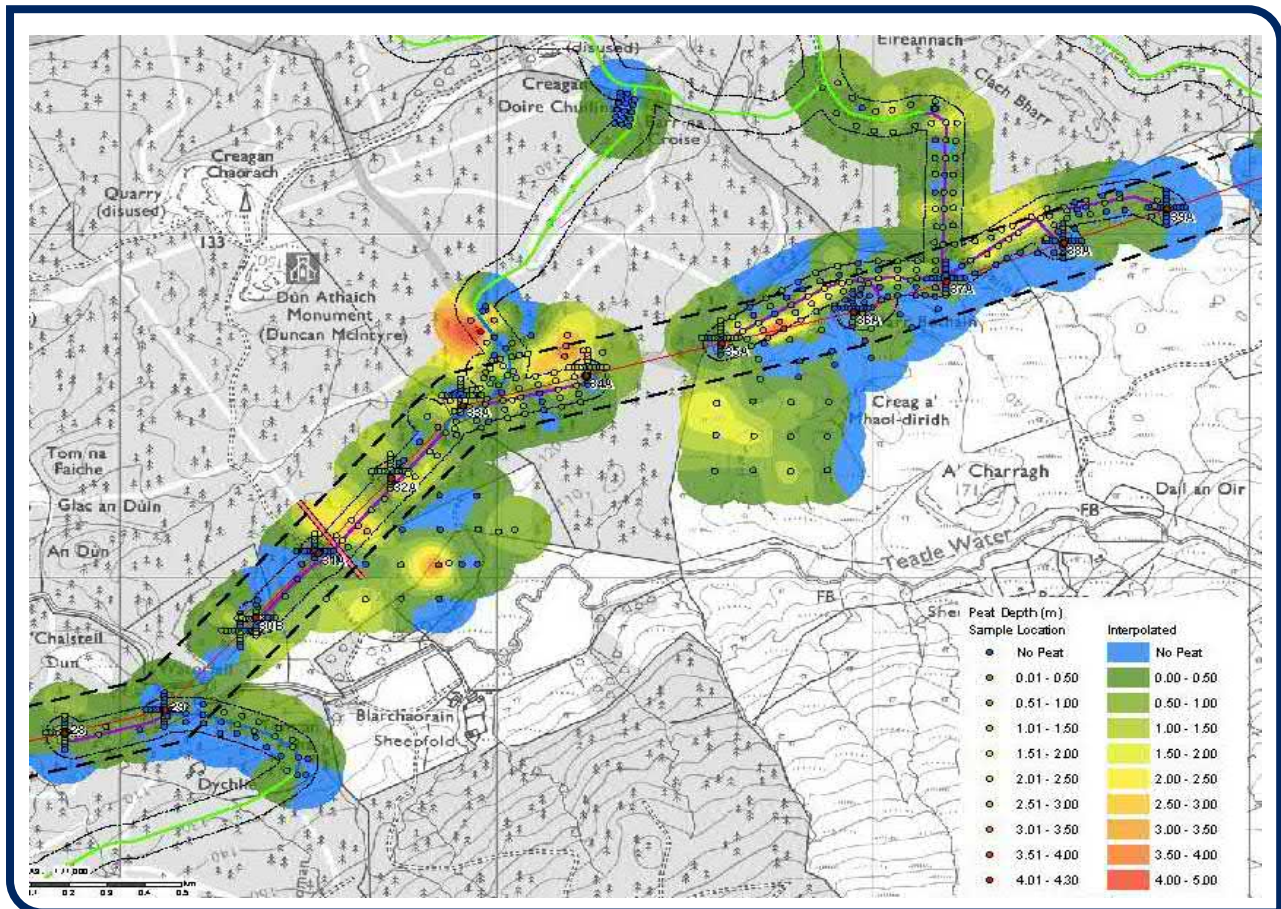
- Salmonid spawning and nurseries;
- Watercourses;
- Peat and Carbon Rich Soils;
- Private Water Supplies;
- Public Water Supplies;
- GWTDEs.

Without the application of mitigation, significant effects could occur to sensitive hydrological and peatland soil receptors. Following the application of mitigation measures to protect water supplies and peat, including measures to be implemented through the CEMP and Peat Management Plan (PMP), no significant residual effects are predicted. No significant cumulative effects are considered to occur to hydrological or hydrogeological receptors.





# Potential Environmental Effects



Peat Depths

## Legend

- Proposed OHL Towers
- Indicative Proposed Alignment
- Proposed OHL Tower Platform
- Indicative extent of undergrounding of existing LV where it is crossed by the Indicative Proposed Alignment
- Access Tracks - Existing Upgrade
- Access Tracks - New Stone Permanent
- Access Tracks - New Stone Temporary
- OHL Limit of Deviation (LOD 100 m from centre line of proposed alignment)
- Access Track Limit of Deviation (LOD 50 m from centre line of proposed access track)

# Potential Environmental Effects

## Noise and Vibration

The EIA has considered potential impacts and their associated effects on Noise Sensitive Receptors (NSRs) within 1 km of the site. A total of 16 NSRs were identified. Baseline noise measurements were conducted at these NSRs to establish representative background noise in the project area. Consultation was undertaken with ABC and a desk-based construction noise appraisal was completed to assess the effects of all construction works on any nearby residents. The assessment has been produced in line with British Standard 5228-1:2009 +A1:2014 (BS5228), Code of Practice for Noise and Vibration Control on Construction and Open Sites.

Baseline NSRs in the assessment are defined as residential properties and other sensitive buildings within 1 km of the Proposed Development. All NSRs considered in this assessment are residential in nature and for the purposes of the assessment are rated as High sensitivity for a conservative assessment due to the rural nature of the surroundings.

### Summary of Assessment

The impact of construction noise at receptors is below noise limits, and therefore rated as Minor and not significant. Whilst no additional mitigation is required, construction noise would be managed via a Construction Environmental Management Plan (CEMP), which would be prepared by the Principal Contractor prior to construction works and would set out best practice measures to be implemented during the construction phase.

## Cumulative Effects

Cumulative Effects are defined as follows:

- In-combination effects: The combined effect of the Proposed Development together with other reasonably foreseeable developments (during construction and operation); and
- Effect Interactions: The combined or synergistic effects caused by the combination of a number of effects on a particular receptor which may collectively cause a more significant effect than individually. A theoretical example is the culmination of disturbance from dust, noise, vibration, artificial light and human presence on sensitive fauna (e.g. certain bat species) adjacent to a construction site.

### In-Combination Effects

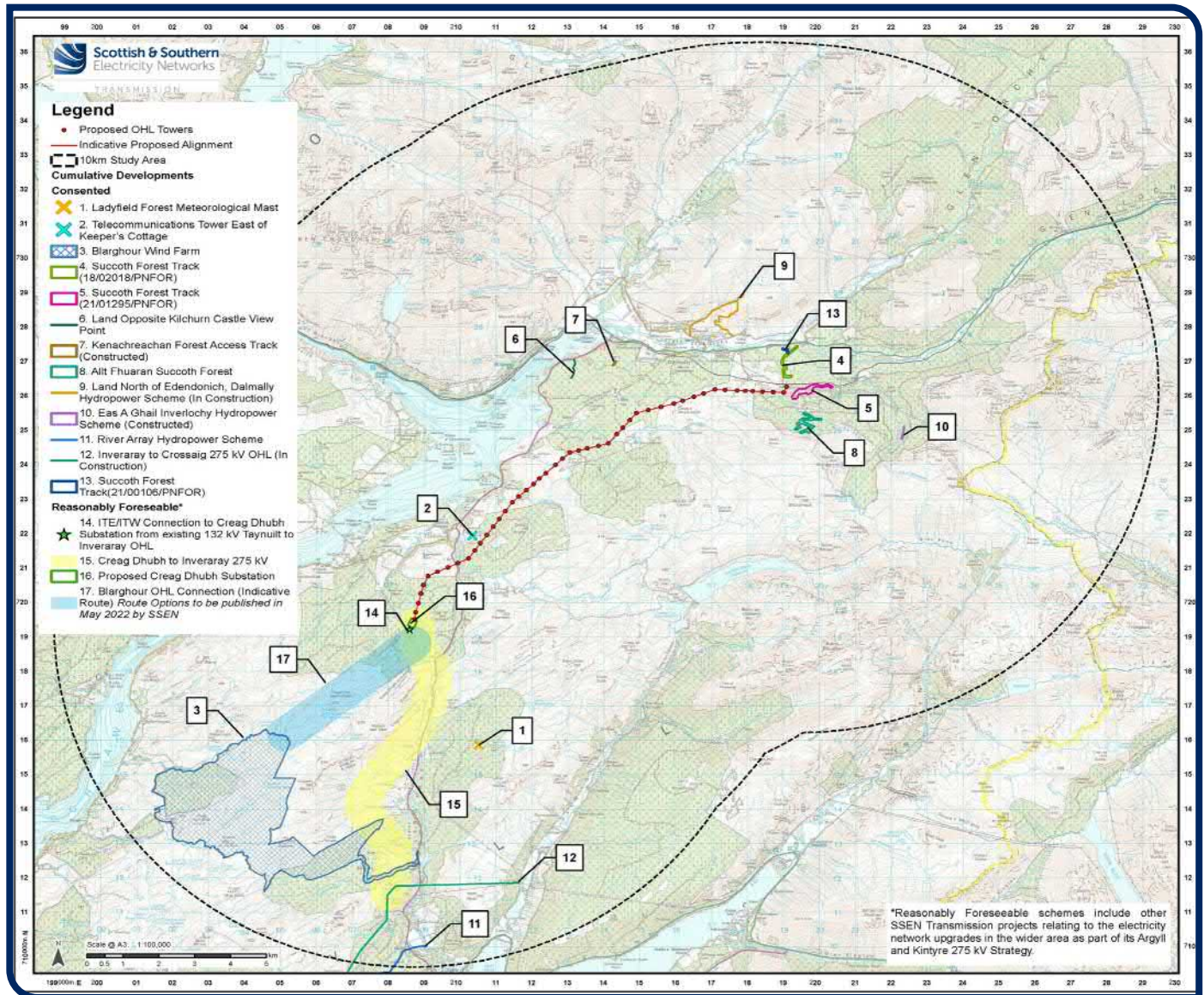
This considered developments recorded as consented (under construction or not yet constructed), those in planning and those within the public domain, deemed reasonably foreseeable, within 10 km of the proposed substation. In this regard, schemes forming part of the Argyll and Kintyre 275 kV Strategy, which are not yet in-planning, have been considered as they are reasonable foreseeable.

Based on the above and in consultation with ABC, a number of developments with the potential for cumulative effects were identified along the proposed OHL, comprising new substation and OHL works, hydropower projects, wind farm projects, commercial forestry schemes and other small infrastructure projects.

Each technical topic has considered the potential for In Combination effects and effect interactions from the Proposed Development, and has concluded that no significant cumulative effects are predicted.



# Potential Environmental Effects



Cumulative Developments

# Conclusion

SSEN Transmission is proposing to construct and operate a 13.3 kilometre (km) double circuit 275 kV overhead line (OHL), supported by lattice steel towers between a proposed substation at Creag Dhubh and the existing Scottish Power Energy Networks (SPEN) 275 kV OHL that runs from Dalmally to Inverarnan, near Succoth Glen, via a Tie-in connection (the 'Proposed Development').

There is a requirement for SSEN Transmission to increase its network capability in Argyll and Kintyre, beyond that already under current construction and public development, to enable the connection of further renewable generation and to export to the wider GB network. This group of works designed to deliver the required increase in network capacity has been named the 'Argyll and Kintyre 275 kV Strategy'. The Proposed Development forms part of this strategy.

Consultation with statutory and non-statutory consultees was carried out throughout the EIA and Scoping process. Virtual exhibitions and face to face consultation events and meetings have taken place to invite comment on the Proposed Development and identify specific areas of the environmental assessment to incorporate into the EIA.

Through EIA scoping and stakeholder consultation it was agreed that the following environmental topics would have the potential for likely significant effects resulting from the Proposed Development or required

additional information. These topics are therefore addressed in the EIA:

- Biodiversity;
- Ornithology;
- Landscape Character and Visual Impact;
- Cultural Heritage;
- Hydrology, Hydrogeology, Geology and Soils;
- Forestry;
- Noise and Vibration; and
- Traffic and Transport;

As a result of a combination of design-led mitigation and additional proven construction phase mitigation measures, the EIAR concludes that likely significant effects associated with the proposed development, alone and in combination with cumulative developments, are limited to Biodiversity, LVIA and RVAA and cultural heritage

No residual effects are identified for Ornithology, Hydrology, Hydrogeology and Geology and Soils, Forestry, Noise and Vibration and Traffic and Transport.

SSEN Transmission has submitted an application for consent under Section 37 of the Electricity Act 1989 and deemed Planning Permission under the Town and Country Planning (Scotland) Act 1997, as amended, for the Creag Dhubh to Dalmally 275 kV Connection.

## Comments

Any representations to the s37 consent application may be submitted via:

- The Energy Consents Unit website at [www.energyconsents.scot/Register.aspx](http://www.energyconsents.scot/Register.aspx);
- By email to the Scottish Government, Energy Consents Unit mailbox at [representations@gov.scot](mailto:representations@gov.scot); or
- By post to the Scottish Government, Energy Consents Unit, 4th Floor, 5 Atlantic Quay, 150 Broomielaw, Glasgow, G2 8LU.

Written or emailed representations should be dated, clearly stating the name (in block capitals), full return email and postal address of those making representations, identify the Proposed Development (Creag Dhubh to Dalmally 275 kV Connection) and specify the grounds for representation.

Only representations sent by email to [representations@gov.scot](mailto:representations@gov.scot) will receive acknowledgement.

The closing date for representations will be published on the ECU and SSEN Transmission's websites (addresses provided above).