

3. CONSIDERATION OF ALTERNATIVES

3.1 Introduction

- 3.1.1 The overall objective of the Proposed Development is to increase the network capability in Argyll and Kintyre, beyond that already under current construction and/or public development¹, to enable the connection of further renewable generation and to export to the wider GB network. Further details on the project need are provided in Section 1.1.1 of **Chapter 1: Introduction (EIAR Volume 2)**. In accordance with Regulation 5(2)(d) and Schedule 4, paragraph 2 of the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017², known hereafter as the “EIA Regulations”, this chapter outlines the reasonable alternatives studied by the Applicant, which are relevant to the Proposed Development and its specific characteristics. The chapter also describes the main reasons for the option chosen, taking into account the effects of the Proposed Development on the environment.
- 3.1.2 An iterative process of design development and route selection³ (the routing process) has been completed since project inception in 2015, in response to anticipated increases in renewable generation within the wider area which will require connection to the transmission grid. A summary of this process is provided in Section 3.3.2.
- 3.1.3 This chapter summarises key stages in this routing process and the alternatives which have been considered at each stage in order to reach the final design, namely the Proposed Development, as described in **Chapter 2: Description of the Proposed Development (EIAR, Volume 2)**. The routing process and the final configuration of the Proposed Development has been informed throughout by the consideration of a balance of factors including engineering feasibility, environmental sensitivities, network resilience and cost factors as well landowner and wayleave considerations. The routing process has also been supported throughout by an ongoing process of consultation with statutory consultees, landowners, and the local community. A summary of all routing and consultation and documents is provided in **Table 3.1**.
- 3.1.4 This chapter is supported by the following Technical Appendices and Figures:
- **Technical Appendix 3.1: Creag Dhubh to Dalmally 275kV Connection, Report on Consultation. SSEN Transmission, 2021.**
 - **Figure 1.1: Location Plan and Overview**
 - **Figure 2.1a and 2.1b: Overhead Line Route and Access Tracks**
 - **Figure 3.1: Routing options (T28-T47)**
 - **Figure 3.2: Alignment options (T28-T47)**
 - **Figure 3.3: Tie-In Connections**
- 3.1.5 This chapter is also supported by further routing, alignment and consultation documents produced throughout the project evolution (2015 – 2022). These are referenced throughout the text where applicable.

3.2 Key Policy Considerations

- 3.2.1 The Applicant has obligations under section 9 of the Electricity Act to ‘develop and maintain an efficient, co-ordinated and economical system of electricity transmission’.
- 3.2.2 The Applicant, as a licence holder under the Electricity Act, ‘when formulating proposals to generate, transmit, distribute or supply electricity’ is required, under Schedule 9 to:

¹Includes those developments within the public domain which are consented (not yet constructed) or the subject of a valid planning application.

² <https://www.legislation.gov.uk/ssi/2017/101/introduction/made>.

³ The SSEN Transmission Approach to Routeing of Overhead Lines, 2016.

SSEN, 2020. Procedures for Routeing Overhead Lines and Underground Cables of 132kV and above. Document reference: PR-NET-ENV-501. September 2020.
Scottish and Southern Electricity Networks (March 2018) PR-NET-ENV-501: Procedures for Routeing Overhead Lines of 132kV and above.

- “have regard to the desirability of preserving natural beauty, of conserving flora, fauna and geological or physiographical features of special interest and of protecting sites, buildings and objects of architectural, historic or archaeological interest”; and
- “do what [it] reasonably can to mitigate any effect which the proposals would have on the natural beauty of the countryside or on any such flora, fauna, features, sites, buildings or objects”.

3.2.3 Under the terms of the transmission licence, the Applicant is obliged to comply with the National Electricity Transmission System Security and Quality of Supply Standard (NETS SQSS)⁴, which provides the criteria for the planning and design of the transmission system. The NETS SQSS requires the Applicant to provide a transmission connection capable of withstanding single circuit faults without loss of supply and without disconnection of generation stations. Furthermore, the Construction (Design and Management) Regulations 2015 (CDM Regulations) require that the design aims to minimise hazards and reduce risks across the whole project lifecycle.

3.2.4 Taking account of these obligations, the Applicant has considered engineering, cost, and environment factors in evaluating the alternatives for the Proposed Development, with the aim of identifying a solution that meets the objectives of the Proposed Development which is 'technically feasible and economically viable' and 'which causes the least disturbance to the environment and to the people who live, work, visit and recreate within it'.

3.3 Design Alternatives

3.3.1 The EIA Regulations require the Applicant to report upon the reasonable alternatives that were studied and the main reasons for the choice of the development, taking into account the environmental effects. The following potential alternatives have been considered during project development:

- The “Do Nothing” Scenario; and
- 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;
 - Option 2: Overhead Line from Creag Dhubh combined with Underground Cable Connection from Croftintuime to Dalmally Substation; and
 - Option 3: Overhead Line from Creag Dhubh turning east at Duncan Ban MacIntyre Monument to a new Switching Station in Glen Lochy.

3.3.2 Following consultation discussions with Scottish Power Energy Networks (SPEN) on Option 3, an amendment to the proposed design was discussed and 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 Creag Dhubh to SPEN’s existing OHL, at Glen Lochy (Succoth Glen).

3.3.3 This is presented as *Option 4: Tie-In Connections to Connect to Existing SPEN OHL* and discussed further in Section 3.3.3.

“Do-Nothing” Scenario

3.3.4 The “do-nothing” scenario assumes that no other options are considered.

3.3.5 The construction of a new OHL which will form part of the Argyll and Kintyre transmission network in Scotland is necessary due to the growth in renewable electricity generation requiring an increase in transmission capacity. Therefore, a “do-nothing” scenario would result in a significant network capacity deficit. This would not support the Applicant’s ability to meet their licence requirements, in respect of the planning and operation criteria, as required by NETS SQSS. Furthermore, without the transmission capacity increase future renewable energy

⁴ National Electricity Transmission System Security and Quality of Supply Standard, Version 2.4, (2019). Available at: <https://www.nationalgrideso.com/codes/security-and-quality-supply-standards?code-documents>.

generating developments in the region would be constrained by a lack of suitable grid connection. This would therefore impact Scotland's carbon reduction targets and commitment to net zero emissions by 2045. The network would be at risk of potentially huge transmission constraints, through being unable to convey the generation connected to it, resulting in significant operational cost to constrain generation. Additionally, this would also make any future reinforcement of the network expensive and difficult due to the network being highly constrained resulting in high construction outage costs.

- 3.3.6 The “do nothing” scenario is not considered a sustainable development option, resulting in insufficient capacity in the network and a failure to meet the generation and supply demands. It would be inconsistent with the Applicant's licence obligations to develop and maintain an efficient, coordinated, and economic electricity system, which on balance causes the least disturbance to the environment and to the people who live and work within it.

Summary of Project Evolution

- 3.3.7 The project was first introduced to stakeholders in March 2016⁵. At this stage the Applicant shared the general project scope and identified search areas for a new overhead line route. In October 2016⁶, stakeholders were consulted on the preferred route (Option 1) for an overhead line alongside the alternative options that were presented. Feedback received in Dalmally specifically indicated a general objection to the project. Stakeholders cited concerns regarding proximity to residential properties, visual impact, and the proximity of the project to the existing Scottish Power transmission line. There were requests that the line be undergrounded in Dalmally due to these concerns.
- 3.3.8 During 2017, the Applicant completed an initial investigation into potential underground cabling route options (Option 2) around Dalmally. The results of an underground cable feasibility study, which identified three potential options, each heavily constrained with no clear preference, were presented to the local community council in January 2018. In March 2018⁷, the Applicant held a consultation to share the preferred alignment for an overhead line connection from Creag Dhubh to the existing Scottish Power Dalmally substation (Option 1), located on the north side of Strath of Orchy. Following consultation feedback, which confirmed continued objection to the preferred option, the Applicant committed to further assess undergrounding in places of particular local sensitivity, focussing on the area of greatest concern at the Strath of Orchy. Detailed assessment of the potential underground cable connection options⁸ was completed in 2019. This identified specific technical and environmental risks caused by the underground cable options and increased cost associated with an underground cable connection. As a result, the Applicant decided to evaluate alternative options that would address concerns raised by the community without requiring an underground cable connection.
- 3.3.9 An alternative solution was identified comprising an overhead line connection between the proposed Creag Dhubh substation to a new switching station (Glen Lochy) adjacent to the existing Scottish Power overhead line near Succoth Glen (Option 3). Option 3 was presented at the September 2020 consultation⁹ following an alternative connection options assessment. This alternative connection option aimed to reduce the visual and landscape issues, cited as a key objection (refer to Table 5 of the ROC, September 2020) to Option 1, and remove the engineering challenges and pollution risks associated with Option 2. Following analysis of the consultation feedback and a review of the Applicants comparative analysis of engineering, environmental and economic criteria for each of the options, Option 3 was considered, on balance, to provide the best solution when assessing

⁵ North Argyll Reinforcements, Consultation Booklet. SSEN Transmission, March 2016. Available here <https://www.ssen-transmission.co.uk/media/4485/north-argyll-information-boards-march-2016.pdf>. Creag Dhubh to Dalmally 275kV Consultation Document: Alignment Selection. SSEN Transmission, March 2018.

⁶ North Argyll Reinforcements, Consultation Booklet. SSEN Transmission, October 2016. Available here <https://www.ssen-transmission.co.uk/media/4486/north-argyll-consultation-booklet-oct-16.pdf>.

⁷ North Argyll Reinforcements, Consultation Booklet. SSEN Transmission, March 2018. Available here <https://www.ssen-transmission.co.uk/media/4487/mar-18-north-argyll-booklet.pdf>.

⁸ Creag Dhubh to Dalmally 275kV Connection, Cable Route Options Appraisal. SSEN Transmission July 2019.

⁹ Creag Dhubh to Dalmally 275kV Consultation Document: Project Update and Alternative Connection Options. SSEN Transmission, August 2020. Available here <https://www.ssen-transmission.co.uk/media/4677/creag-dhubh-to-dalmally-275kv-connection-consultation-document-web-version.pdf>. Creag Dhubh to Dalmally 275kV Report on Consultation. SSEN Transmission, November 2020. Available here <https://www.ssen-transmission.co.uk/media/4939/report-on-consultation-creag-dhubh-to-dalmally-275kv-connection-november-2020-web-version.pdf>.

engineering, environment, and economic criteria alongside the stakeholder feedback. Option 3 was then taken forward, and further routing and alignment assessments were undertaken. The Preferred Route Option (B1) and Switching Station Site (Site 6) were selected following survey, assessment, and consultation in September 2020. Route Option B1 was considered to have the lowest impact on woodland habitat, especially with careful micro-siting of towers. A comparative appraisal¹⁰ of the environmental, engineering, and cost sensitivities and risks was then undertaken for each alignment option (Tower 28 and Glen Lochy Switching Station) in accordance with the methodology set out in SSEN Transmission guidance. The Preferred Alignment (Baseline plus GL5 deviation) greatly reduces the loss of Ancient Woodland in comparison to the Baseline Alignment, has the lowest impact on blanket bog habitat, as well as providing a slight improvement to the visual amenity of local properties.

- 3.3.10 During the latest consultation period in July and August 2021¹¹, Scottish Power Energy Networks (SPEN) identified that connecting their existing line to the proposed Glen Lochy Switching Station would have wider implications on their network and their preference would be to undertake a Tie-in connection. This connection removes the need for Glen Lochy Switching Station, instead towers and wires are used to configure the connection between the proposed new OHL Preferred Alignment and the existing OHL. Therefore, three Tie-In Connections (Option 4) were identified between T41 and T47 of the Preferred Alignment, with reference to the engineering criteria as per Table A7 of SSEN Transmission guidance. A further comparative appraisal¹² of the environmental, engineering, and cost sensitivities and risks was undertaken for each Tie-In Connection (between T41 and T47 of the Preferred Alignment), in accordance with the methodology set out in SSEN Transmission guidance.
- 3.3.11 From an environmental perspective, Tie-in Connection 3 was the preferred connection, as it results in the smallest loss of Ancient Woodland in comparison to the other two connections, as well as reducing the number of towers required (three less) and subsequent impact to the surrounding habitat. Tie-in Connection 3 is also predicted to have a negligible impact on visual amenity due to the intervening topography that would screen / filter any intervisibility from Cnoc an t-Sadhail and Brackley Farmhouse. Selection of Tie-in Connection 3 would avoid the potential for encirclement of the properties by transmission infrastructure and would reduce the prominence of the OHL in views from each property.
- 3.3.12 In respect of engineering assessment, Tie-in Connection 2 was the preferred option. Tie-in Connection 2 is preferred over connection 3 because of the proximity to the residential property Cnoc an t-Sadhail. Tie-in Connection 2 is preferred over Tie-in Connection 1 due to the challenging terrain along Tie-in Connection 1 and the potential difficulties this creates for construction and operation. Tie-in Connection 1 and 2 are preferred over Tie-in Connection 3, because connection 3 would be more difficult to facilitate any connection into a Glen Lochy (Succoth Glen) switching station. From a cost perspective, no preference was identified between the three Tie-in Connections.
- 3.3.13 The Brackley Farm in-by land is more intensively grazed pasture close to the farm buildings. The hill farming system at Brackley is disproportionately reliant on this small acreage of in-by land, which is immediately south of the railway and also between the railway and A85. Development of this area would cause considerable disturbance during construction and thereafter whilst the land recovers following reinstatement. Therefore, Tie-in Connection 1 would be preferable to reduce the disturbance to the affected landowner. Two site visits were completed to review the tower profiles, temporary diversion, access track alignments and the Ancient Woodland area. Based on the contractors' designs, it is considered that Tie-in Connection 1 tower positions and clearances can be achieved and that a temporary mast diversion can be installed, with supporting access tracks, to permit the construction of the permanent tower, within the existing OHL alignment. The Applicant is confident that the

¹⁰ Creag Dhubh to Dalmally 275kV Connection. Draft Alignment Selection Study Report: Connection to Potential Glen Lochy Switching Station. SSEN Transmission, April 2021.

¹¹ Creag Dhubh to Dalmally 275kV Connection. Consultation Document Alignment Selection - Connection to Proposed Glen Lochy Switching Station, Creag Dhubh Substation and Project Update. SSEN Transmission, June 2021. Available here https://www.ssen-transmission.co.uk/media/5542/it29-creag-dhubh-to-dalmally_consultation-document_june-2021_issue.pdf

¹² Creag Dhubh to Dalmally 275kV Connection. Alignment Selection Study Report Addendum: SPEN Line Tee Options. SSEN Transmission, October 2021.

contractor led design will provide an engineering design solution to mitigate the challenging terrain associated with Tie-in Connection 1 and will avoid significant impacts to Ancient Woodland. Therefore, in consideration of all remaining issues, the Applicant's preferred option is OHL Tie-in Connection 1. Further details on the 2021 consultation process can be found in the Report on Consultation, November 2021¹³.

Plate 3.1 illustrates the design evolution of the project from introduction (March 2016) through to August 2021.



Plate 3.1: Summary of Design Evolution (2016-2021)

The Applicant will publish information about future public events on the project website [Creag Dhubh - Dalmally 275kV Connection \(ssen-transmission.co.uk\)](https://www.ssen-transmission.co.uk), in local press and by directly contacting stakeholders.

¹³ Creag Dhubh to Dalmally 275kV Connection. Report on Consultation. SSEN Transmission, November 2021. Available at <https://www.ssen-transmission.co.uk/media/6073/creag-dhubh-dalmally-275kv-connection-roc-with-figures-november-2021.pdf>

A new 275 kV connection between the proposed Creag Dhubh substation and the existing Dalmally to Inverarnan 275 kV overhead line

3.3.14 An overview of the three connection options is shown on **Plate 3.2**, with further description on each option provided below.



Plate 3.2: Overview - Three Connection Options

Option 1: Overhead Line from Creag Dhubh to Dalmally

3.3.15 Option 1 comprises an overhead line connection (see **Figure 3.1, EIAR Volume 3a**) between Creag Dhubh substation and the existing Dalmally substation, owned by Scottish Power. The corridor selection process was carried out in 2015. The Strategic Study Area was defined “by taking a straight line between the existing Dalmally substation and the centre point of the preferred North Argyll¹⁴ Substation Targeted Search Area”, and offsetting this by 5 km. This allowed a range of route options and tie-in locations to be analysed. Within this Strategic Study Area, baseline studies and walkover site visits were undertaken in April and November 2015 to identify the potential constraints to routeing. In March 2016¹⁵, the Applicant consulted with the public and statutory consultees on a refined corridor within the Strategic Study Area. Due to the differences in the potential effects and constraints across the area, the Strategic Study Area was broken down into two sections (**Plate 3.3**):

- Section A: Dalmally Substation through Strath Orchy; and
- Section B: Strath Orchy to the proposed North Argyll Substation (Creag Dhubh).

¹⁴ Now known as “Creag Dhubh substation

¹⁵ Consultation booklets were produced in March and October 2016. Available here: <https://www.ssen-transmission.co.uk/projects/creag-dhubh-dalmally-275kv-connection/>

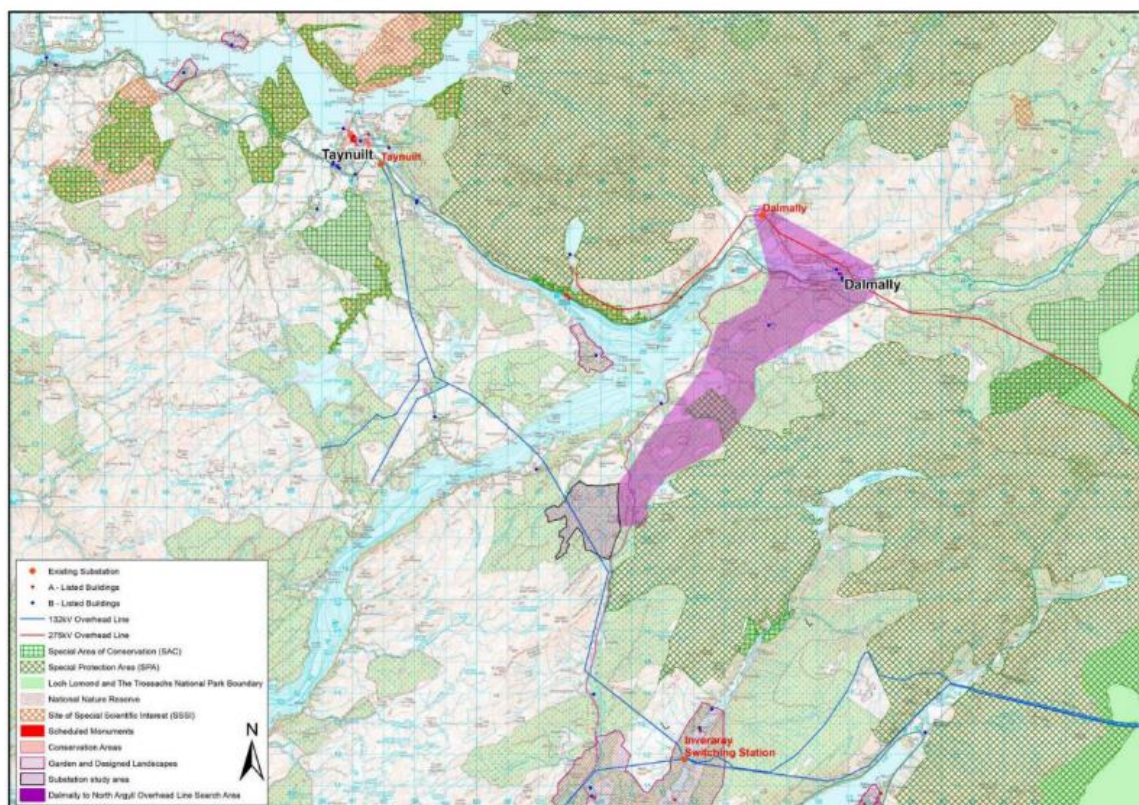


Plate 3.3: Refined Route Corridor (2016)

3.3.16 Within this refined corridor a route selection process was carried out in 2016. Six route options were assessed, as shown in **Plate 3.4** below. All routes are 500 m in width to allow for the potential for more than one alignment option during later stages of the design process.

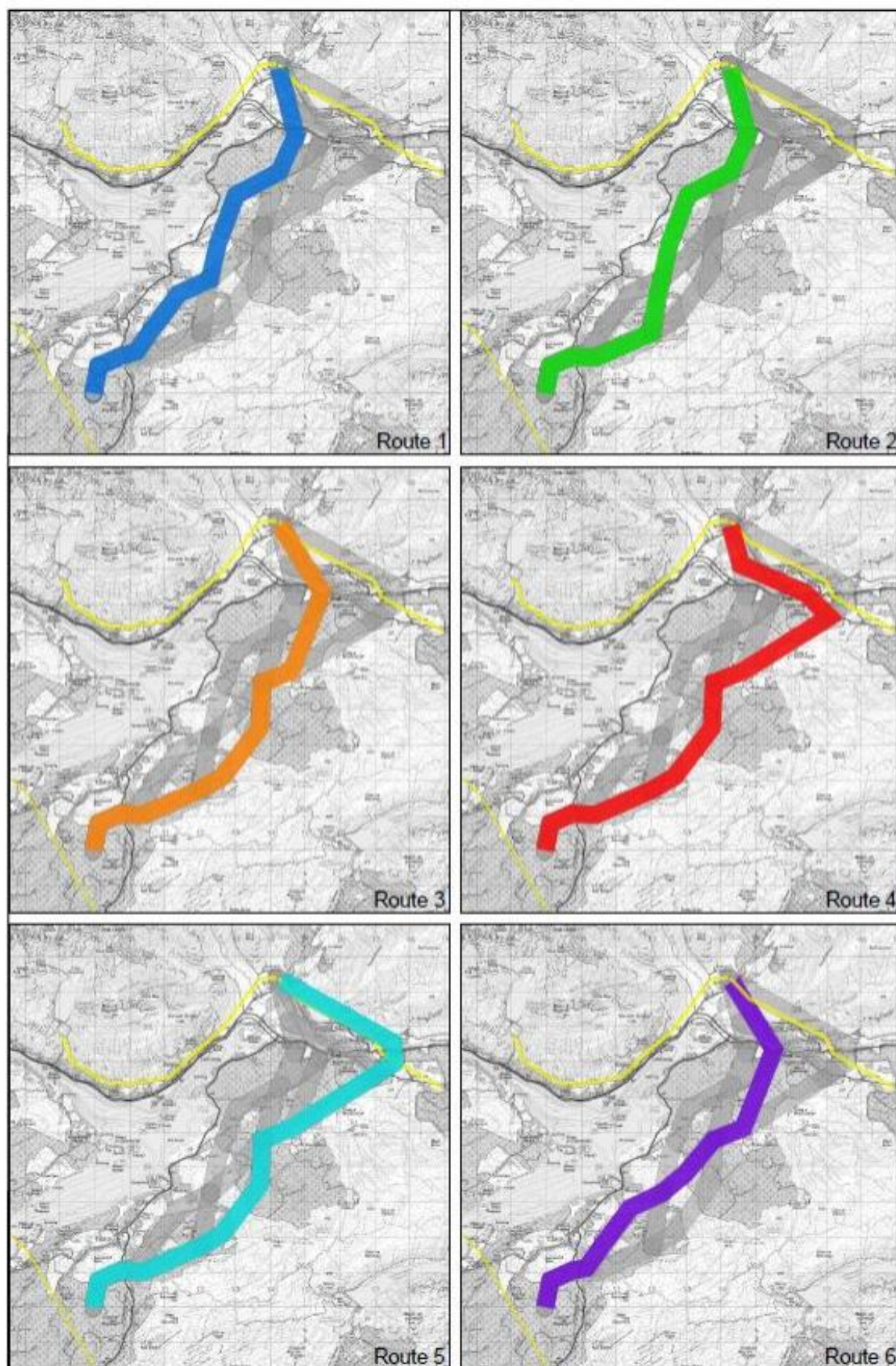


Plate 3.4: Route Options (2016)

3.3.17 All overhead line Route options considered at this stage had the potential for higher risk landscape and visual effects in the Strath of Orchy, due to the location of the existing Dalmally substation. The route selection process was carried out in 2016¹⁶ and subsequently consulted on in July 2017¹⁷. From this process, a 500 m Proposed Route (Route 6) was selected to be brought forward to the alignment selection stage. Route 6 and the surrounding key environmental constraints are shown on **Plate 3.5**. Route 6 follows a line with generally lower landscape effects in the northern half of Section B and is reasonably set back from the Loch in the southern half. Route 6 also avoids crossing the spur of the Glen Etive and Glen Fyne Special Protection Area (SPA)¹⁸, and only clips the western edge.

¹⁶ North Argyll to Dalmally Route Selection Study Report (SSEN Transmission, 2016)

¹⁷ North Argyll to Dalmally Route Selection Consultation Document (SSEN Transmission, 2017)

¹⁸ Glen Etive and Glen Fyne SPA qualifies under Article 4.1 by regularly supporting a population of European importance of the Annex 1 species golden eagle *Aquila chrysaetos* (19 active territories in 2003, more than 4.2% of the GB population).

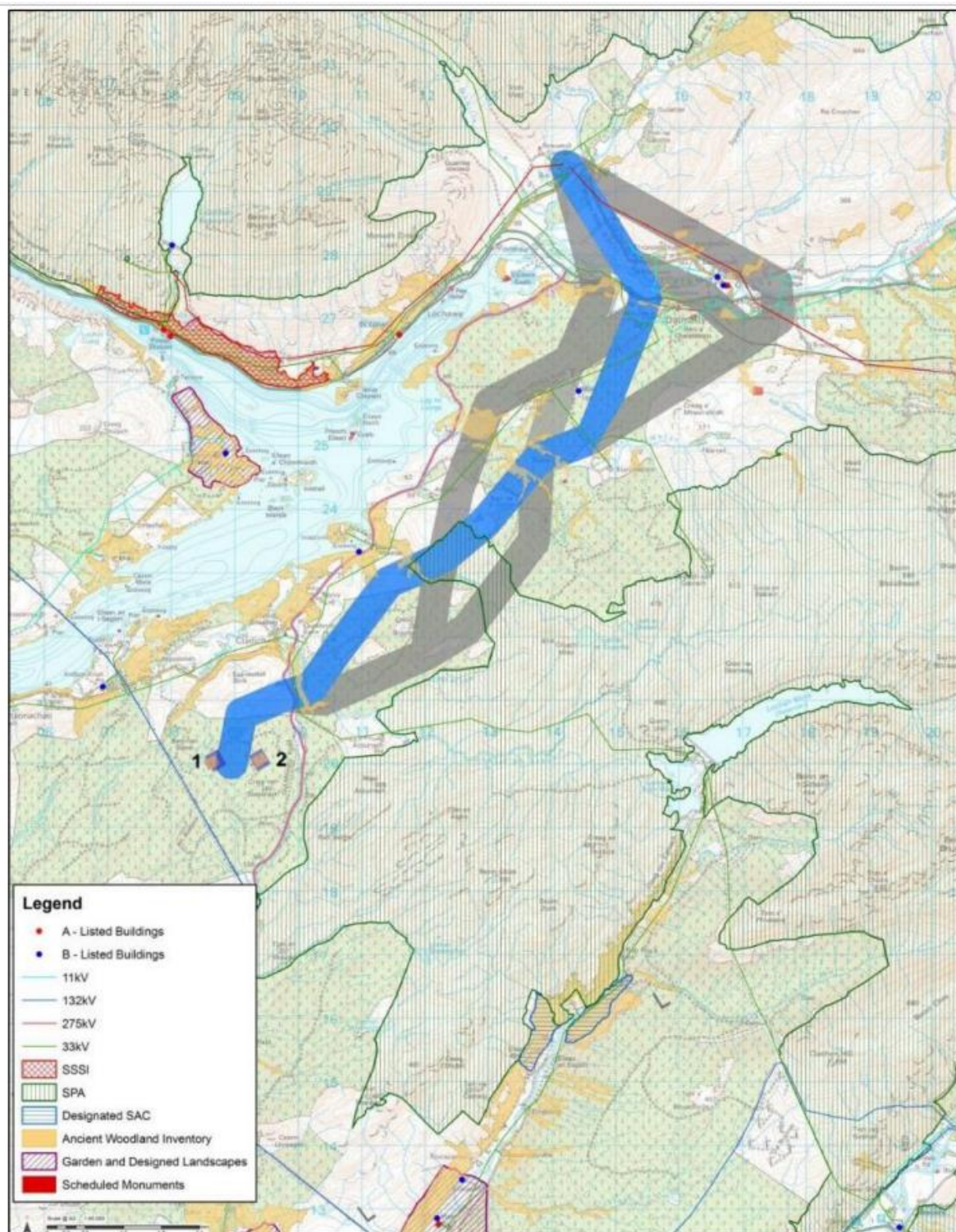


Plate 3.5: Proposed Route (2016)

3.3.18 A Baseline Alignment was then developed with the aim of providing the optimal alignment within the Proposed Route, taking account of technical criteria (in accordance with SSEN Transmission Guidance¹⁹). The Baseline Alignment is also considered to represent the base cost option. Following the identification of the Baseline Alignment, amendments were suggested (hereafter referred to as 'deviations'). These deviations were largely suggested to address environmental issues, identified during stakeholder and public consultation and the

¹⁹ The SSEN Transmission Approach to Routeing of Overhead Lines, 2016.

Baseline Alignment review. The suggested deviations were assessed²⁰ against the Baseline Alignment in line with the engineering and environmental criteria in accordance with SSEN Transmission Guidance⁵. As above, the Proposed Route was broken down into two sections:

- Section 1: from the (proposed) Creag Dhubh Substation to Strath Orchy; and
- Section 2: Strath Orchy to the (existing) Dalmally Substation.

3.3.19 Deviations were then identified and assessed within the two areas; ordered systematically travelling from south to north along the Baseline Alignment and numbered accordingly. Deviations are illustrated in **Plates 3.6** and **3.7** below.

- Deviation 1A (Section 1): developed to reduce the setting impact on Tom a'Chaisteal Dun; whilst still avoiding the SPA.
- Deviation 1B (Section 1): developed to seek to reduce visibility from the Loch Awe-side area, reduce the effects on the Rocky Mosaic LCT and to reduce the setting impact on Tom a'Chaisteal Dun.
- Deviation 2A (Section 2): developed to avoid the Ancient Woodland immediately south of the A85 and the railway.
- Deviation 2B (Section 2): developed as it is located further from the castle and the Duncan Ban McIntyre Memorial monument. Deviation 2B is less likely to affect residential amenity but would be prominent from in wider views and would be intrusive at Glenview (community centre).
- Deviation 3A (Section 1): was proposed to reduce the effect on the people of Cladich. It runs to the east of the Baseline Alignment moving 700 m south to a new location (AT2A²¹) so that more of the route runs through forestry and is further from Cladich. Deviation 3A also avoids an area of marsh, reducing the potential for effect on water vole and is further from the black grouse lekking sites.
- Deviation 3B (Section 1): Deviation 3B is an engineering simplification of Deviation 3A, running directly from AT1 to AT3 (renumbered AT2).

²⁰ Detailed review of the comparative analysis of deviation options is reported in the Alignment Selection Report (SSEN Transmission, 2017).

²¹ Tower numbers.

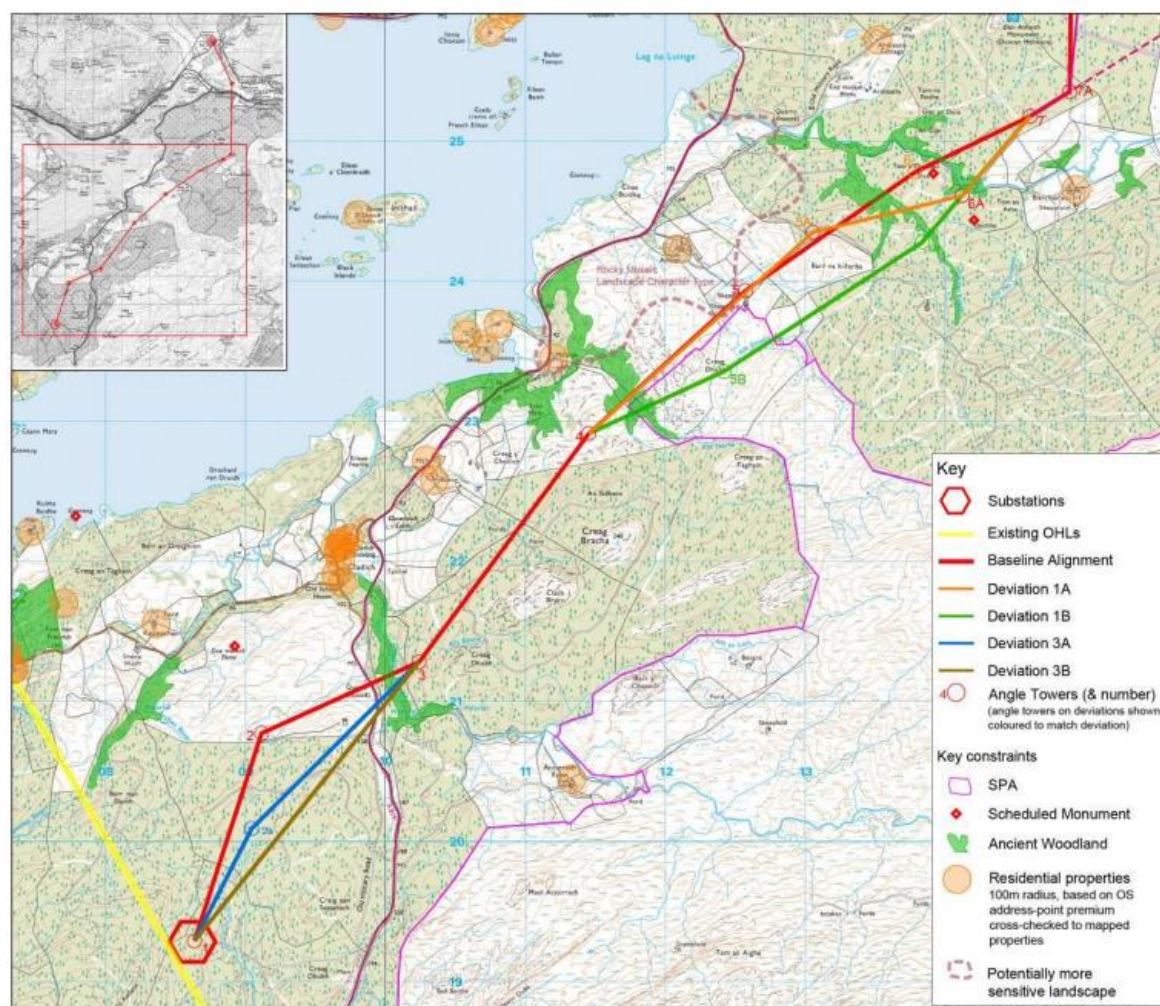


Plate 3.6: Deviation 1 and Deviation 3 (A&B) – Loch Awe Side (AT4-AT7)

A comparative appraisal of the environmental, engineering, and cost sensitivities and risks was undertaken for the Deviation options in accordance with the methodology set out in SSEN Transmission Guidance⁵. A combined alignment of the Baseline plus Deviation 1A and Deviation 2A was considered to be the Preferred Alignment (**Plate 3.8**).

- 3.3.20 Deviation 1A was distinctly preferred because it has a reduced effect on the Tom a'Chaisteal Dun Scheduled Monument, whilst not introducing the consenting issue of physically crossing the Glen Etive and Glen Fyne SPA caused by Deviation 1B. Deviation 2A was preferred because it avoids impacting on the Ancient Woodland and would not increase the other environmental impacts associated with the Baseline Alignment.
- 3.3.21 Deviation 2A and 1A presented the optimum alignment on balance, given the considerable environmental advantages (compared with the Baseline Alignment) and the comparatively small technical and cost implications.

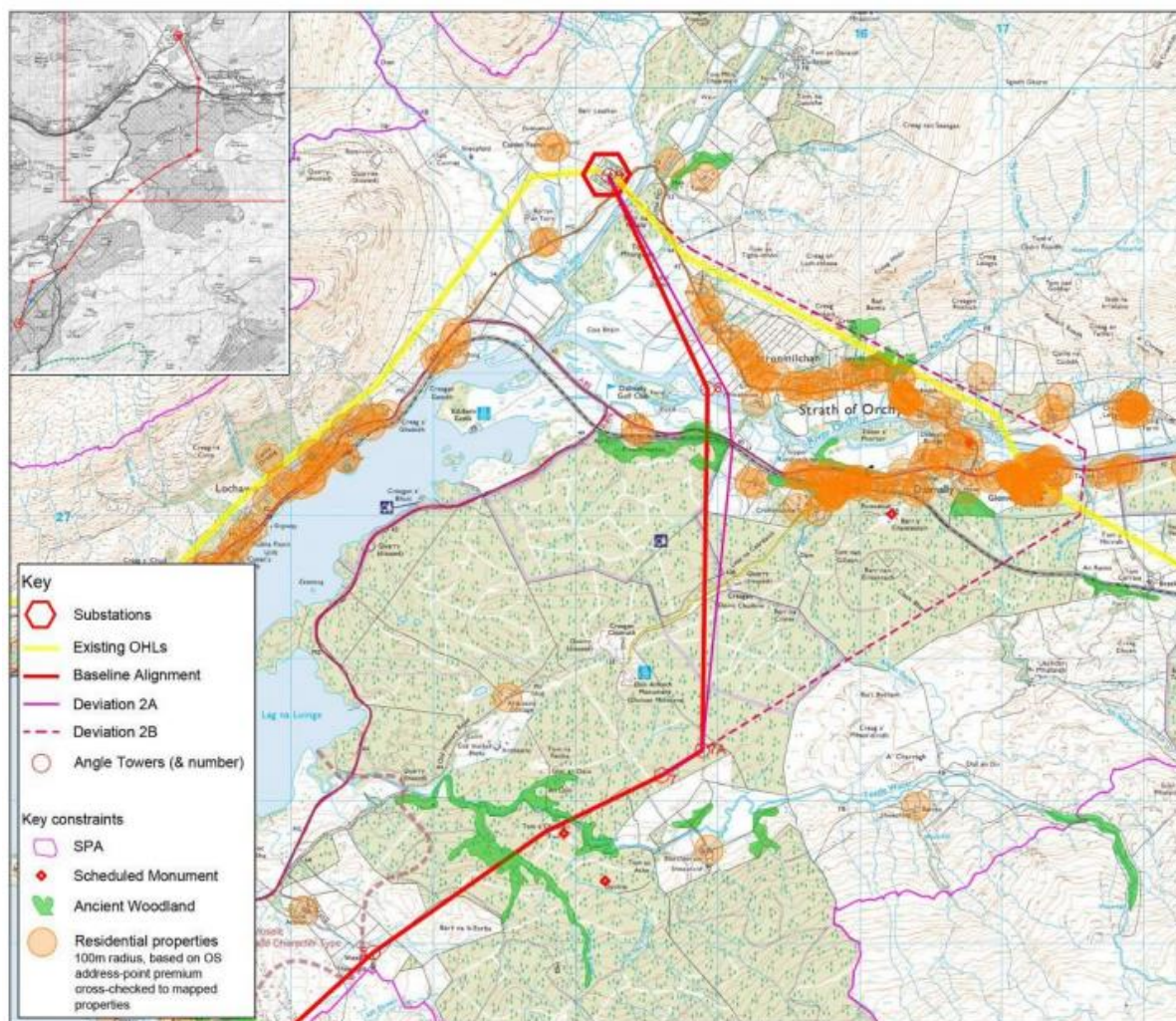


Plate 3.7: Deviation 2 (A&B) – Strath of Orchy (AT7-AT9)

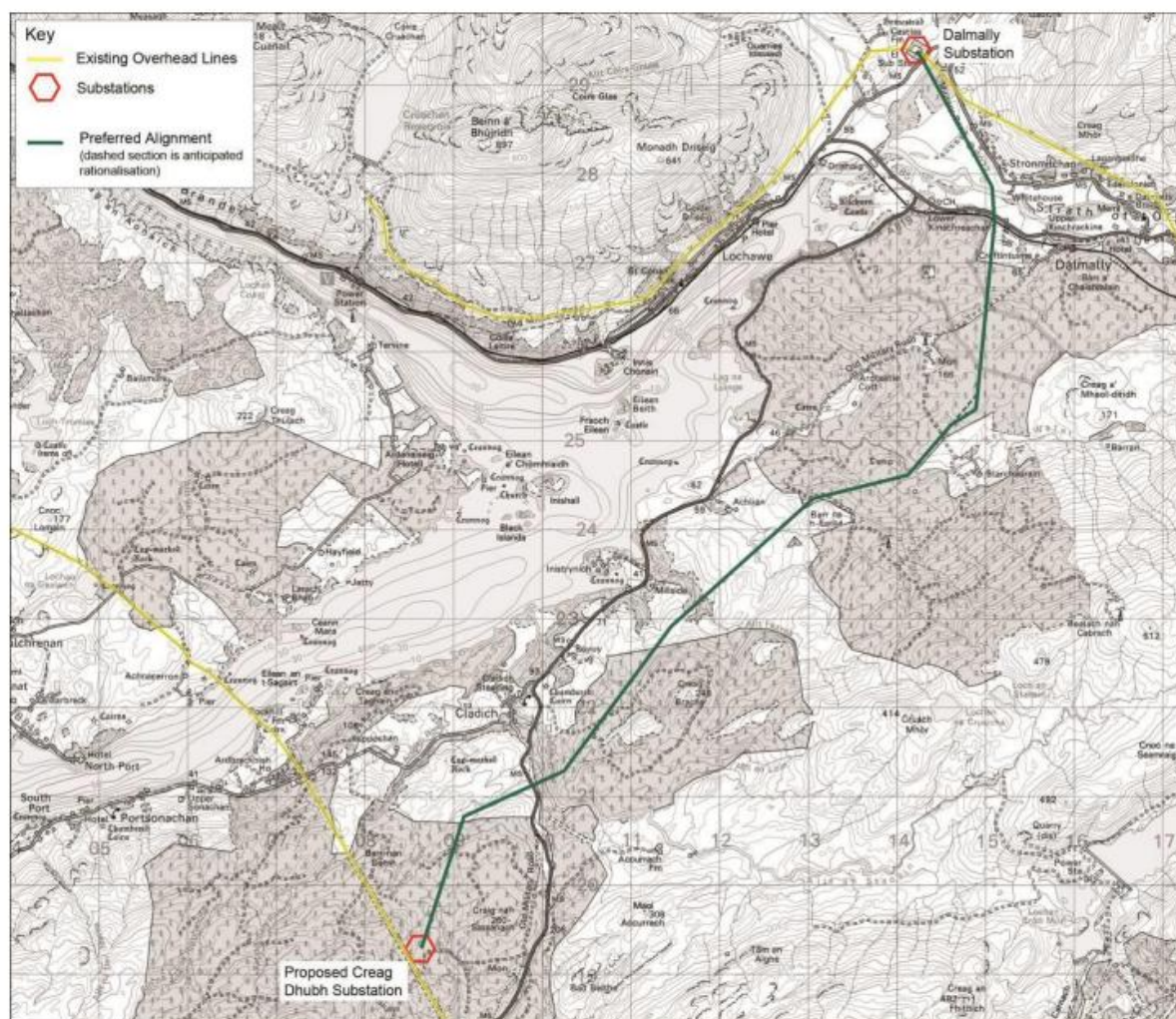


Plate 3.8: Option 1 Preferred Alignment 2018

3.3.22 The selected Preferred Alignment in 2018 (referred to as Option 1 in Section 3.3 above), provided the optimal balance of environment, engineering, and costs, to connect the existing Dalmally substation to the proposed Creag Dhuhb substation. Full details of the comparative appraisal can be found in the North Argyll to Dalmally Alignment Consultation Document (2018)²², with a RAG summary provided in **Plate 3.9** below.

²² North Argyll to Dalmally Alignment Consultation Document (SSEN Transmission, 2018): Available <https://www.ssen-transmission.co.uk/projects/creag-dhuhb-dalmally-275kv-connection/>

Environmental Red Amber Green (RAG) assessment for preferred overhead line Route (2017 consultation)		Engineering RAG assessment for preferred overhead line Route (2017 consultation)	
Landscape	Red	Road Crossings	Green
Visual	Red	Elevation	Green
Ecology	Amber	Number of Deviations	Amber
Ornithology	Amber	Residential Proximity	Red
Cultural Heritage	Amber	Access Routes	Amber
Land Use	Green	Route Length	Amber
Hydrology Geology	Amber	HV Crossings	Amber
		Ground Conditions	Red
		Terrain	Amber

Plate 3.9: RAG Summary of Preferred Alignment (2018)

- 3.3.23 The environmental assessment in 2018, concluded that whilst the overhead line would affect the landscape locally, it would have a relatively limited effect on the wider landscape. However, this assessment was not accepted by Argyll & Bute Council (ABC) during the 2018 Consultation and received strong opposition from the local community who requested that the Applicant should consider undergrounding the line in Dalmally due to visual impact in the Strath of Orchy and concerns over proximity to residences in Stronmilchan. NatureScot, noted that an objection from a landscape perspective would be unlikely for Option 1. In response to the 2018 consultation, ABC indicated that Option 1 is the least favoured route due to concerns over potential landscape, cultural and amenity impacts. The assessment included higher risks associated with the proximity to residences because some residences are approximately 150 m from the preferred overhead line alignment. It also identified higher risks due to ground conditions, flooding, and areas of deep peat. The Scottish Environmental Protection Agency (SEPA) commented that a standard response regarding flooding and pollution would be expected. No other stakeholders commented specifically on the engineering risks associated with Option 1.
- 3.3.24 Following consultation feedback (2018), which confirmed continued objection to the preferred option (Option 1), The Applicant committed to further assess undergrounding across the Strath of Orchy. Detailed assessment of the potential underground cable connection options was completed in 2019 (Option 2).

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

- 3.3.25 Option 2 comprises an overhead line connection from Creag Dhubh substation to Croftintuime on the Preferred Alignment (part of Option 1), where it would transition, via a sealing end compound, to an underground cable to cross the Strath of Orchy and connect to Dalmally substation (see **Figure 3.1, EIAR Volume 3a**). This option was proposed to address the concerns raised through consultation, regarding visual impacts within the Strath of Orchy.

3.3.26 In response to stakeholder requests for an underground cable, the Applicant completed detailed engineering constructability assessments and an environment assessment (in accordance with SSSEN Transmission Guidance²³) of the possible underground cable options in 2019²⁴ (**Plate 3.10**).

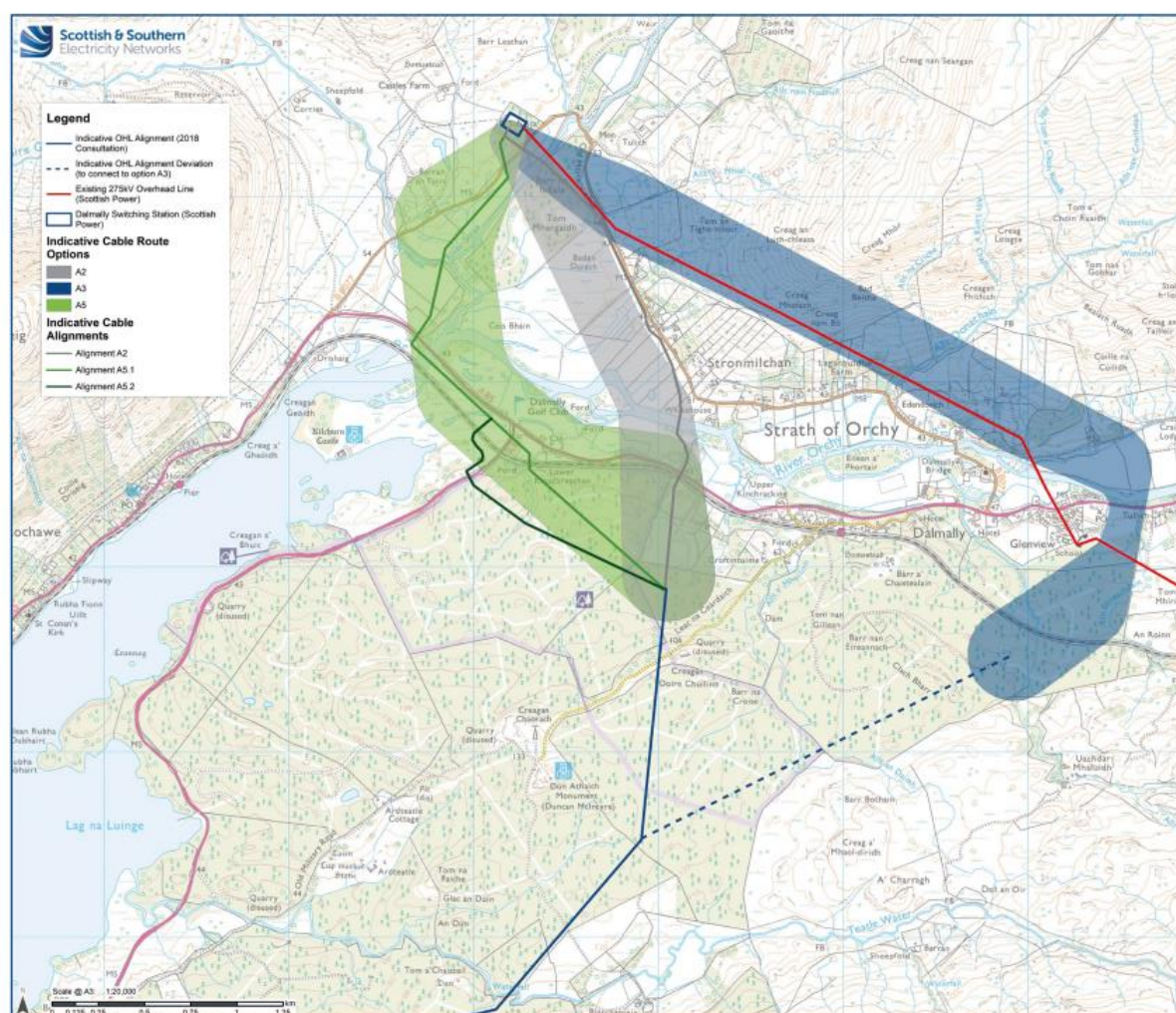


Plate 3.10: Underground Cable Options (2019)

3.3.27 Three route options were identified initially:

- Route A2: this underground cable route would cross under the A85 and River Orchy before heading North across the front of Stronmilchan, and then connecting into Dalmally substation.
- Route A3: this underground cable route runs along the lower slopes to the north of Stronmilchan following the existing SPEN OHL route.
- Route A5: this underground cable route would follow the A85 road for a significant length, before crossing the River Orchy and then connecting into Dalmally substation.

3.3.28 However, following more detailed review of technical constraints, one (Route A3) was not considered further. The remaining two options (Route A2 and Route A5) were included in the detailed constructability assessment.

3.3.29 This assessment of cable options identified the following high-risk issues of concern: infrastructure (road, railway) crossings; flooding; terrain; peat deposits and gaining access for works. These high risk issues are summarised

²³ Scottish and Southern Electricity Networks (March 2018) PR-NET-ENV-501: Procedures for Routing Overhead Lines of 132kV and above.

²⁴ Creag Dhubb Substation to Dalmally Substation 275 kV Connection Cable Route Options: Environmental Appraisal. SSSEN Transmission, July 2019.

in the below RAG tables (**Plate 3.11**). Further details of the RAG assessments are located in the Cable Route Options Appraisal, 2019¹⁶.

Engineering RAG assessment of Cable Route Options (2019)				Environmental RAG assessment of Cable Route Options (2019)		
Guidance Criteria – Engineering	Option A2	Option A5.1	Option A5.2	Guidance Criteria – Environmental	Option A2	Option A5
Infrastructure crossings				Natural Heritage – Designations		
Road Crossings				Natural Heritage – Protected Species		
Contaminated Land				Natural Heritage – Habitats		
Atmospheric Pollution areas				Natural Heritage – Ornithology		
Flooding (Operation)				Natural Heritage – Hydrology/Geology		
Trees Root Protection Area				Cultural Heritage – Designations		
Terrain				Cultural Heritage – Cultural heritage assets		
Peat				People – Proximity to Dwellings		
Rock				Landscape and Visual – Designations		
Geology, Hydrology and Hydrogeology				Landscape and Visual – Landscape Character		
Access				Landscape and Visual – Visual		
Angle/Deviations (Cable Bending)				Land Use – Agriculture		
Flooding (Construction)				Land Use – Forestry		
Surface Water				Land Use – Recreation		
Circuit Design				Planning		
Access						
Link Boxes						
Fault Repairs						
Distance from Constraints						
Distance from Existing Circuits/Network						
Proximity to Windfarms						
Urban Environments						

Plate 3.11: RAG Summary of Cable Options

- 3.3.30 Respondents to the September 2020 consultation²⁵ raised two key themes around Option 2. Firstly, Option 2 will reduce the visual impact of the preferred overhead line at the Strath of Orchy (Option 1); and, secondly, the underground cable would be installed in an area of high flood risk with subsequent pollution risks, that would need careful consideration and mitigation to be agreed with relevant regulators (specifically, the Scottish Environment Protection Agency (SEPA)).
- 3.3.31 The assessment also identified high risks associated with: crossing of roads and railway; flooding²⁶; and ground conditions²⁷. There is a potential risk of pollution incidents during construction, resulting from this combination of the engineering risks. There is also a high risk to the safe operation of an electricity cable located in an area that regularly floods. SEPA noted that they do not necessarily have concerns regarding the principle of undergrounding options. However, SEPA also noted that any work in or near the water environment has the potential to result in a significant adverse impact. Therefore, pollution prevention mitigation would be required to prevent/minimise sediment pollution for the duration of the works. SEPA added that works within an active flood plain may require special consideration.
- 3.3.32 As a result, the Applicant decided to evaluate alternative options, that would address visual concerns raised by the community, without the risks associated with an underground cable connection. An alternative solution was identified comprising an overhead line connection to a new switching station, adjacent to the existing Scottish Power overhead line in Glen Lochy (Option 3).

²⁵ SSSEN Transmission 2020. Report on Consultation Craig Dhubh to Dalmally 275kV Connection. November 2020. Available at: <https://www.ssen-transmission.co.uk/projects/creag-dhubh-dalmally-275kv-connection/>.

²⁶ Area designated as high flood risk: SEPA interactive Maps.

²⁷ Areas of Class 1 and Class 2 peat present, as well as GWDTEs.

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

- 3.3.33 Option 3 was presented at the September 2020 consultation¹⁴ following an alternative connection options assessment. This alternative connection option aims to reduce the visual and landscape issues, cited as a key objection to Option 1, and remove the engineering challenges and pollution risks associated with Option 2. Addressing stakeholder feedback from past consultations was also key driver in developing Option 3.
- 3.3.34 Option 3 (**Figure 3.2, EIAR Volume 3a**) comprised of a new 275/132kV Creag Dhubh substation adjacent to the existing Inveraray to Taynuilt 132 kV overhead line, a new 275 kV overhead line²⁸ between the proposed Creag Dhubh substation and a switching station near Glen Lochy, and a new Glen Lochy switching station to connect the new 275 kV overhead line with the existing Scottish Power Energy Networks 275 kV overhead line between Dalmally and Inverarnan Substation.
- 3.3.35 Following analysis of the consultation feedback and a review of the Applicants comparative analysis of engineering, environmental and economic criteria for each of the options, Option 3 was considered, on balance, to provide the best solution when assessing engineering, environment, and economic criteria alongside the stakeholder feedback. Option 3 addresses a number of concerns local community members raised about the visual and cumulative impacts of connecting to the existing network in the Strath of Orchy and avoids the significant risk of pollution to Loch Awe during cable installation and during operational use in the flood plain at the head of Loch Awe. Option 3 was therefore taken forward, and further routing and alignment assessments were undertaken.

Routing and Alignment Process – Between Tower 33 and Tower 47

- 3.3.36 A route selection assessment between T33²⁹ and a proposed switching station near Glen Lochy was completed in 2020. Four routes (A1,A2,B1,B2) were identified and assessed in line with SSEN Transmission overhead line routing guidance³⁰.
- 3.3.37 Starting at Tower 33, a Preferred Route (Route Option B1) was identified (see **Plate 3.12**) between Tower 33 and the proposed Glen Lochy Switching Station (Site 6). This Route Option and Switching Station Site were selected following survey, assessment, and consultation in September 2020⁴. Route Option B1 was considered to have the lowest impact on woodland habitat, especially with careful micro-siting of towers.

²⁸ This includes the 2018 Preferred Alignment (Option 1) between T1 to T33.

²⁹ The route selection exercise started at T33, as a Preferred Alignment for the new 275 kV OHL between Creag Dhubh substation and Tower 33 had already been selected following survey, assessment, and consultation in March 2018.

³⁰ SSEN, 2020. Procedures for Routeing Overhead Lines and Underground Cables of 132kV and above. Document reference: PR-NET-ENV-501. September 2020

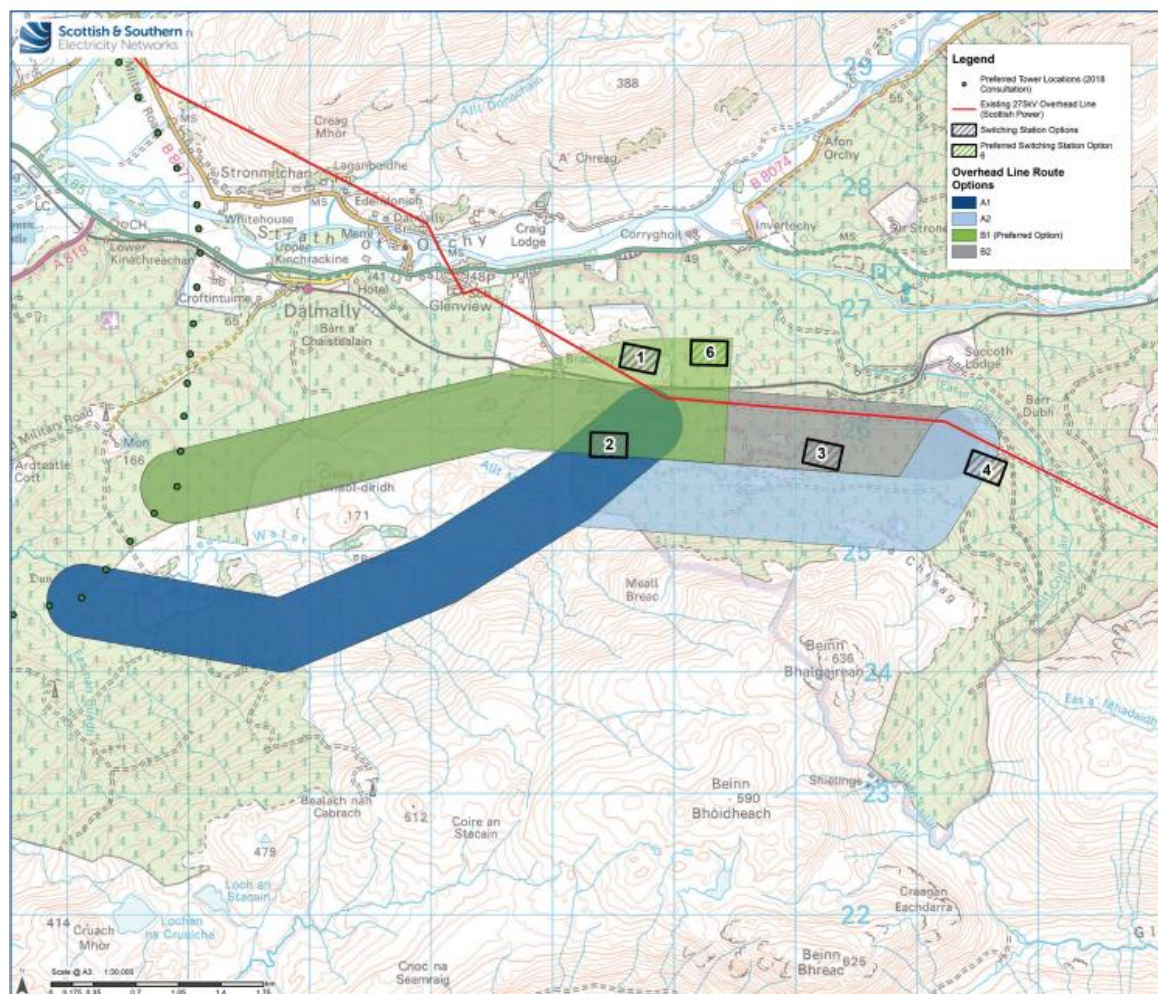


Plate 3.12: Proposed Route Options

3.3.38 Route B1 was therefore taken forward as the Proposed Route and was established as the starting point for developing a Preferred Alignment (T33 to T47). The OHL design contractor, Balfour Beatty (BB), were instructed by the Applicant to develop a Baseline Alignment for a 275 kV OHL, contained within the extents of the Proposed Route. The information gathered in the site assessment was used to determine the most suitable engineering alignment, hereafter called the 'Baseline Alignment'. The Baseline Alignment aims to provide the optimal alignment within the Proposed Route, taking account of engineering criteria as per Table A7 of SSN Transmission guidance³¹.

3.3.39 Following the identification of the Baseline Alignment, amendments were suggested (referred to as 'deviations'). The following deviation options (**Figure 3.4**) were suggested to address environment and engineering issues and previous consultation:

- Deviation GL1: This deviation option was chosen to minimise potential setting impacts on Scheduled Monument SM5149 and reduce the loss of blanket bog habitat (Annex 1 habitat).
- Deviation GL2: This deviation option was chosen to reduce visual impacts from Blarchaorain property and reduce potential setting impacts on Scheduled Monument SM5149.
- Deviation GL3: This deviation option was chosen to reduce the extent of commercial tree felling and woodland fragmentation, as well as reducing potential visual and setting impacts, as described in GL2.

³¹ SSN, 2020. Procedures for Routing Overhead Lines and Underground Cables of 132kV and above. Document reference: PR-NET-ENV-501. September 2020

- Deviation GL4: This deviation option was also chosen to reduce the extent of commercial tree felling and woodland fragmentation.
- Deviation GL5: This deviation option was chosen to reduce the loss of Ancient Woodland and blanket bog. GL5 also provides a slight improvement to visual receptors (Brackley and Glenview).

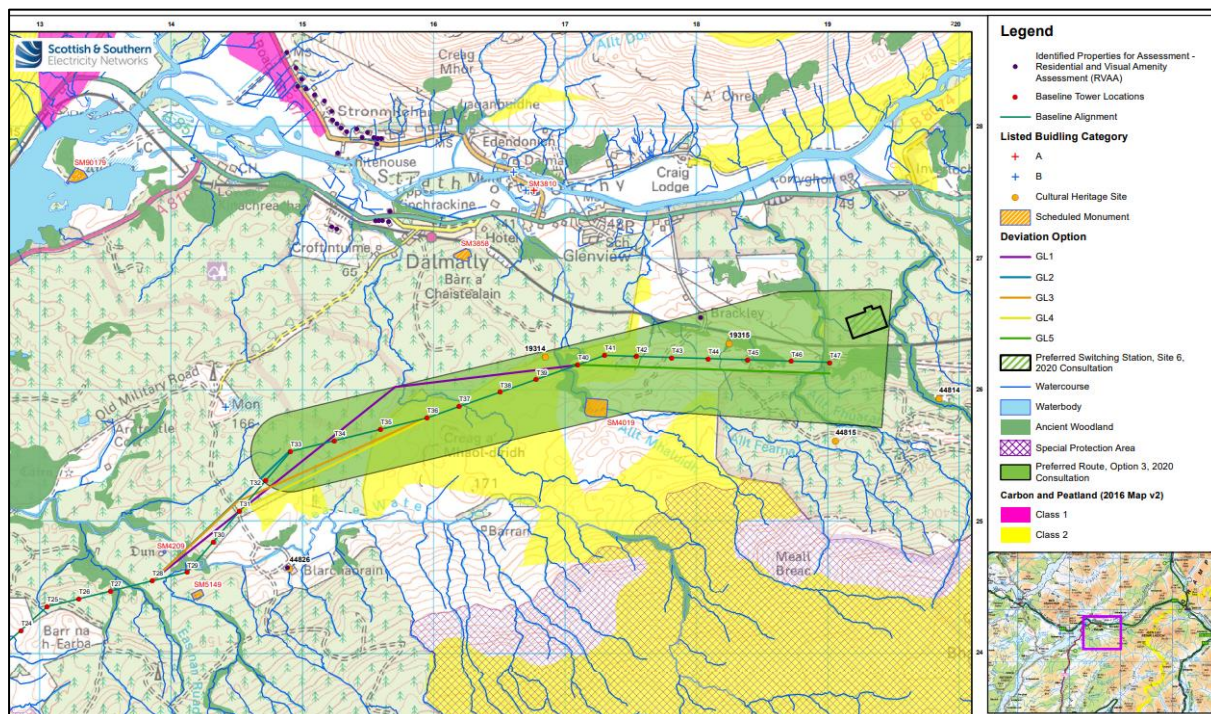


Plate 3.13: Environmental Constraints for Option 3 Alignment Deviation Options

3.3.40 Following a comparative appraisal of the environmental, engineering, and cost sensitivities and risks was undertaken for each option (Tower 28³² and Glen Lochy Switching Station) in accordance with the methodology set out in SSEN Transmission guidance⁶. A combined alignment of the Baseline Alignment plus GL5 was considered to be the Preferred Alignment. The GL5 deviation option greatly reduces the loss of Ancient Woodland in comparison to the Baseline Alignment, has the lowest impact on blanket bog habitat, as well as providing a slight improvement to the visual amenity of local properties. In preparation for and during the latest consultation period, throughout summer 2021³³, SPEN and the Applicant conducted more detailed discussions regarding the Glen Lochy (Succoth Glen) Switching Station. The Switching Station is designed to allow electricity on the Applicants proposed new OHL from Creag Dhubh to Dalmally to transfer onto the existing SPEN OHL and subsequently be distributed to the wider electricity network. SPEN identified that connecting their existing line to the Glen Lochy Switching Station would have wider implications on their network and their preference would be to undertake a Tee In connection. This connection removes the need for Glen Lochy Switching Station, instead towers and wires are used to configure the connection between the proposed new OHL Preferred Alignment and the existing OHL. Therefore three proposed Tie-in Options between Tower 40 and Tower 47 of the Preferred Alignment and the existing SPEN OHL have been considered.

³² Alignment deviations discussions held by SSEN Transmission on 5th March 2021 identified options back to T28 to allow deviations that were considered to offer improvements to Residential Visual Amenity (RVA), backclothing and shorter or straighter alignments.

³³ Creag Dhubh to Dalmally 275kV Connection, Report on Consultation. SSEN Transmission, November 2021.

Option 4: Tie-In Connections to Connect to Existing SPEN OHL

3.3.41 Three Tie-In Connections were identified between T41 and T47 of the Preferred Alignment, with reference to the engineering criteria as per Table A7 of SSEN Transmission guidance³⁴. All Tie-In Connections are illustrated in **Plate 3.14**, with a full **Figure 3.5** located within **EIAR Volume 3a**.

- Tie-In Connection 1: Would involve the OHL being connected to the existing 275 kV Overhead Line (operated by SPEN) between existing SPEN Towers 17 and 18, at the proposed T47. Option 1 would require felling of AW (0.4 ha) to allow space for the temporary 0.6 km diversion between existing SPEN towers 17 and 19, required as part of the construction works. The railway line will not be affected as part of these works. However, constructing a temporary diversion will be challenging due to the restricted space between the railway line and existing circuit. The access, terrain, and ground conditions for this part of the line are also challenging.
- Tie-In Connection 2: Would involve the OHL being connected to the existing 275 kV Overhead Line (operated by SPEN) between existing SPEN Towers 15 and 16, at the proposed T43. T44 would be moved further north and Towers 45, 46 and 47 would not be built. SPEN Tower 16R will replace T16 on the existing line. Option 2 would result in the greatest loss of AW (0.9 ha). A temporary 1.3 km diversion between existing SPEN towers 14 and 17 would be required as part of the construction works. This temporary diversion crosses approximately 0.3 ha of blanket bog habitat (Annex 1 habitat). This Option could also result in significant visual impact to Brackley Farm. Option 2 is considered the most technically straightforward in terms of temporary diversion and connection to the existing line.
- Tie-In Connection 3: Connection 3 would involve the OHL being connected to the existing 275 kV Overhead Line (operated by SPEN), between existing Towers 13 and 14, at the proposed T41. Towers 42-47 would not be built. This Option would require felling of AW (0.4 ha) to allow space for the temporary 1 km diversion between existing SPEN towers 12 and 15, required as part of the construction works. It is a challenging Option as it would bring the OHL development closer to Dalmally and residential properties.

³⁴ SSEN, 2020. Procedures for Routeing Overhead Lines and Underground Cables of 132kV and above. Document reference: PR-NET-ENV-501. September 2020.

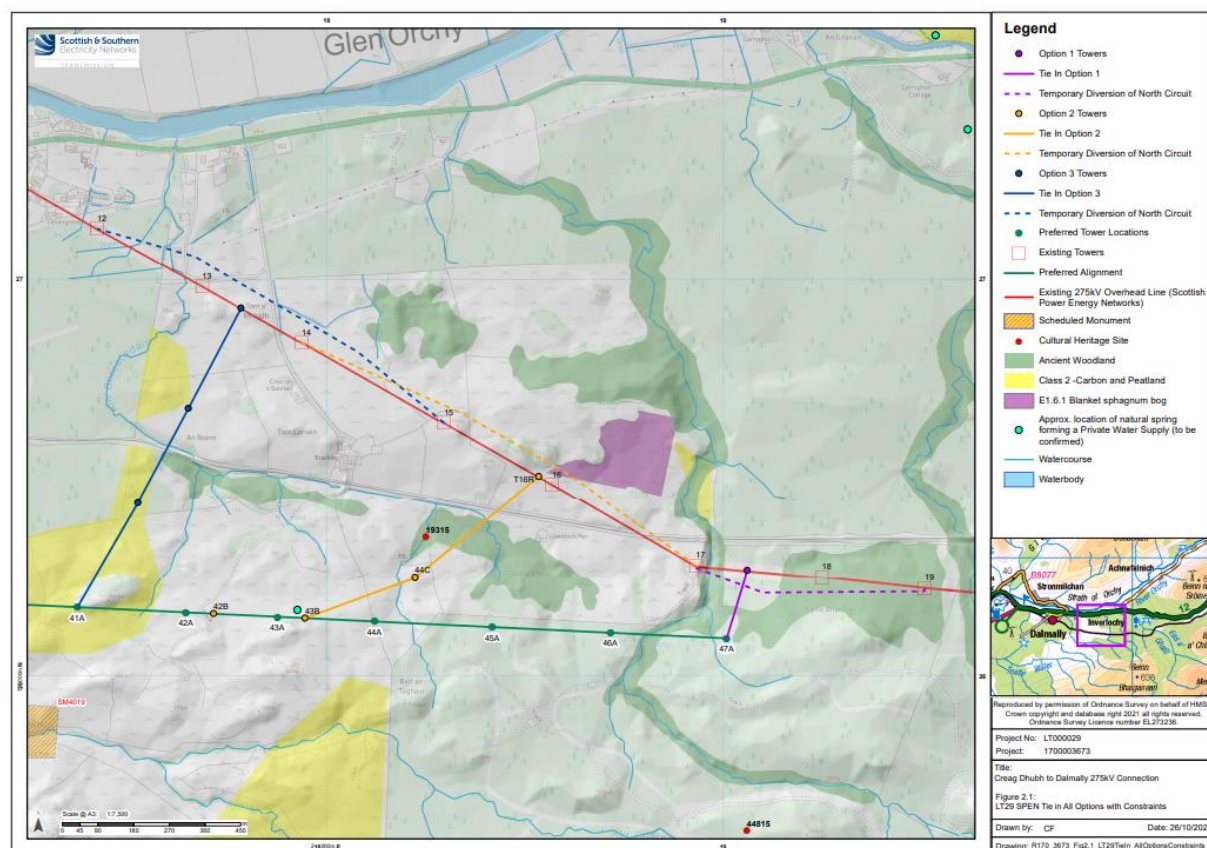


Plate 3.14: Three Tie-In Connections (Option 4)

3.3.42 A further comparative appraisal of the environmental, engineering, and cost sensitivities and risks was undertaken for each Option (between T41 and T47 of the Preferred Alignment), in accordance with the methodology set out in SSSEN Transmission guidance. The RAG summary (Environment and Engineering) is shown in **Plates 3.15 and 3.16** below, with further details provided in the Report on Consultation, November 2021²⁶.

OHL Tie-In Option	RAG Impact Rating - Environmental														
	Natural Heritage					Cultural Heritage		People	Landscape and Visual				Land Use		
	Designations	Habitats	Protected Species	Ornithology	Hydrology / Geology	Designated Assets	Non-designated Assets	Proximity to Dwellings	Designations	Character	Visual	RVA	Agriculture	Forestry	Recreation
Preferred Alignment	A	A	A	A	G	A	G	G	G	G	G	G	G	A	G
Option 1	A	G	A	G	A	A	G	G	G	A	A	A	G	A	G
Option 2	R	A	A	G	A	A	A	G	G	A	A	R	G	G	G
Option 3	A	G	A	G	A	A	G	G	G	A	A	G	G	G	A

Plate 3.15: Environment RAG Summary

Alignment Options	RAG Impact Rating - Engineering					
	Infrastructure Crossing		Ground Condition		Construction and Maintenance	Proximity
	Major Crossings	Road Crossings	Terrain	Peat	Angle Towers	Clearance Distance
Preferred Alignment	G	G	A	R	G	G
Option 1	G	G	R	R	R	G
Option 2	A	G	A	R	R	G
Option 3	A	G	A	R	R	A

Plate 3.16: Engineering RAG Summary

3.3.43 A public meeting was also held on 4th October 2021, and a further Frequently Asked Questions (FAQs)³⁵ was published in October 2021 in to provide further information on the questions and themes raised by the community.

Preferred Tie-In Connection (Option 4)

3.3.44 From an environmental perspective, Tie-in Connection 3 was the preferred option, as it results in the smallest loss of Ancient Woodland in comparison to the other two Options, as well as reducing the number of towers required (three less) and subsequent impact to the surrounding habitat. Tie-In Connection 3 is also predicted to have a negligible impact on visual amenity due to the intervening topography that would screen / filter any intervisibility from Cnoc an t-Sadhail and Brackley Farmhouse. Selection of Tie-in Connection 3 would avoid the potential for encirclement of the properties by transmission infrastructure and would reduce the prominence of the OHL in views from each property. The temporary diversion for Tie-In Connection 1 would result in the loss of 2.8 ha (4.6 ha overall) of AW. However, most of the current habitat consists of scattered scrub and coniferous plantation, rather than closed canopy mature broadleaf woodland. This allows the option of micro-siting the temporary poles and avoiding tree loss. Tie-In Connection 1 would impact a small section of mature broadleaf woodland near existing SPEN Tower 17. Tie-In Connection 1 would form a notable or even prominent element

³⁵ This document can be accessed on the project website at the following link: <https://www.ssen-transmission.co.uk/media/5936/dalmally-community-qa-21-oct-2021.pdf>.

in views to the southeast of Brackley compared with Tie-In Connection 3, however it would not compromise the views from Brackley. Tie-in Connection 2 would create encirclement by transmission infrastructure in views from the property at Brackley Farm, which is likely to compromise the quality and character of views and result in a loss of visual amenity. It would also result in the fragmentation and loss of 1.8 ha of Ancient Woodland.

3.3.45 In respect of engineering assessment, Tie-In Connection 2 was the preferred option. Tie-In Connection 2 is preferred over Tie-In Connection 3 because of the proximity to the residential property Cnoc an t-Sadhail. Tie-In Connection 2 is preferred over Tie-In Connection 1 due to the challenging terrain along Tie-In Connection 1 and the potential difficulties this creates for construction and operation. Tie-In Connection 1 and 2 are preferred over Tie-In Connection 3, because 3 would be more difficult to facilitate any future connection into a Glen Lochy (Succoth Glen) switching station.

3.3.46 From a cost perspective, no preference was identified between the three Tie-in Connections.

3.3.47 The Brackley Farm in-bye land is more intensively grazed pasture close to the farm buildings. The hill farming system at Brackley is disproportionately reliant on this small acreage of in-bye land, which is immediately south of the railway and also between the railway and A85. Development of this area would cause considerable disturbance during construction and thereafter whilst the land recovers following reinstatement. Therefore, Tie-In Connection 1 would be preferable to reduce the disturbance to the affected landowner. The key difference in assessment between Tie-In Connection 2 and 1 is the presence of challenging terrain, based on an assessment of the Lidar data. A site visit was conducted to the Tie-In Connection 1 location on 28th October 2021 and 10th December 2021. The purpose of the site visit was to review the initial tower profiles, temporary diversion, and access track alignments. A survey of the Ancient Woodland area was also completed. Based on the contractors' designs, it is considered that Tie-In Connection 1 tower positions and clearances can be achieved and that a temporary mast diversion can be installed with supporting access tracks, to permit the construction of the permanent tower, within the existing OHL alignment. Although Glen Lochy (Succoth Glen) Switching Station will not be built at this time (in response to the consultation with SPEN), Tie-In Connection 1 would more easily facilitate any future connection³⁶ into a Glen Lochy (Succoth Glen) switching station. Therefore, the Applicant is confident that the contractor led design will provide an engineering design solution to mitigate the challenging terrain associated with Tie-In Connection 1 and will avoid significant impacts to Ancient Woodland. Therefore, in consideration of all remaining issues, the Applicant's preferred option is OHL Tie-in Connection 1 (**Plate 3.17**).

³⁶ The future construction of Glen Lochy (Succoth Glen) switching station is not ruled out completely and is dependent on the network requirements.

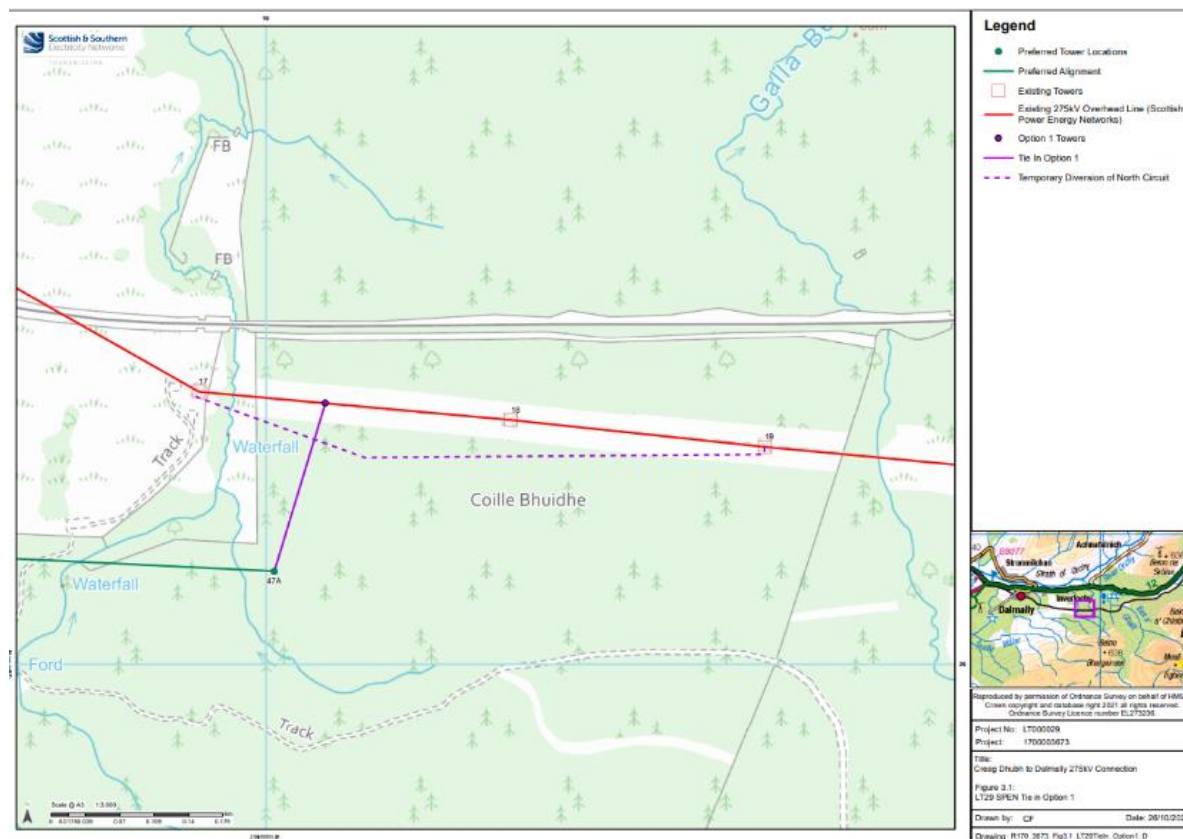


Plate 3.17: Preferred Tie-In Connection 1 (Option 4)

3.4 Summary

- 3.4.1 The Applicant has considered a number of alternatives in determining the key parameters of the Proposed Development, as well as key feedback from Statutory bodies and the local community (**Table 3.1**).
- 3.4.2 The “do nothing” scenario (i.e. no new 275 kV OHL) would result in a significant network capacity deficit due to the substantial growth in current and expected electricity generation in the north of Scotland and is therefore not considered to be a sustainable development option.
- 3.4.3 To facilitate the construction of 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 considered:
- Option 1: Overhead Line from Creag Dubh to Dalmally – This was the preferred option in 2018. However following consultation feedback (2018), which confirmed continued objection to this preferred option, the Applicant committed to further assess undergrounding across the Strathy of Orchy.
 - Option 2: Overhead Line from Creag Dhubh combined with Underground Cable Connection from Croftintuime to Dalmally Substation - This option was considered to address the residential visual amenity concerns raised for Option 1. However, the assessment identified high risks associated with: crossing of roads and railway; flooding; and ground conditions. As a result, the Applicant decided to evaluate alternative options, that would address visual concerns raised by the community, without the risks associated with an underground cable connection.
 - Option 3: Overhead Line from Creag Dhubh turning east at Duncan Ban MacIntyre Monument to a new Switching Station in Glen Lochy - The decision was taken to re-direct the proposed OHL to the south east of Dalmally, near Glen Lochy. Option 3 reduced landscape and visual impacts, engineering challenges and pollution risks associated with the other options and was deemed to be the preferred option. However as stated in Section 3.3 the decision was taken to replace the proposed Glen Lochy Switching Station with a

Tie-in connection between the proposed OHL from Creag Dhubh to SPEN's existing OHL, at Glen Lochy (Succoth Glen).

- **Option 4: Overhead Line from Creag Dhubh turning east at Duncan Ban MacIntyre Monument to a Tie-In connection with the existing SPEN OHL.** The decision was taken to re-direct the proposed OHL to the south east of Dalmally, near Glen Lochy. As above, Option 4 reduces landscape and visual impacts, engineering challenges and pollution risks associated with the other options. Unlike Option 3, this option removes the need for Glen Lochy (Succoth Glen) Switching Station, instead towers and wires only will provide the connection between the proposed new OHL Preferred Alignment and the existing 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. The design evolution of Option 4 is illustrated in **Plate 3.18** below.

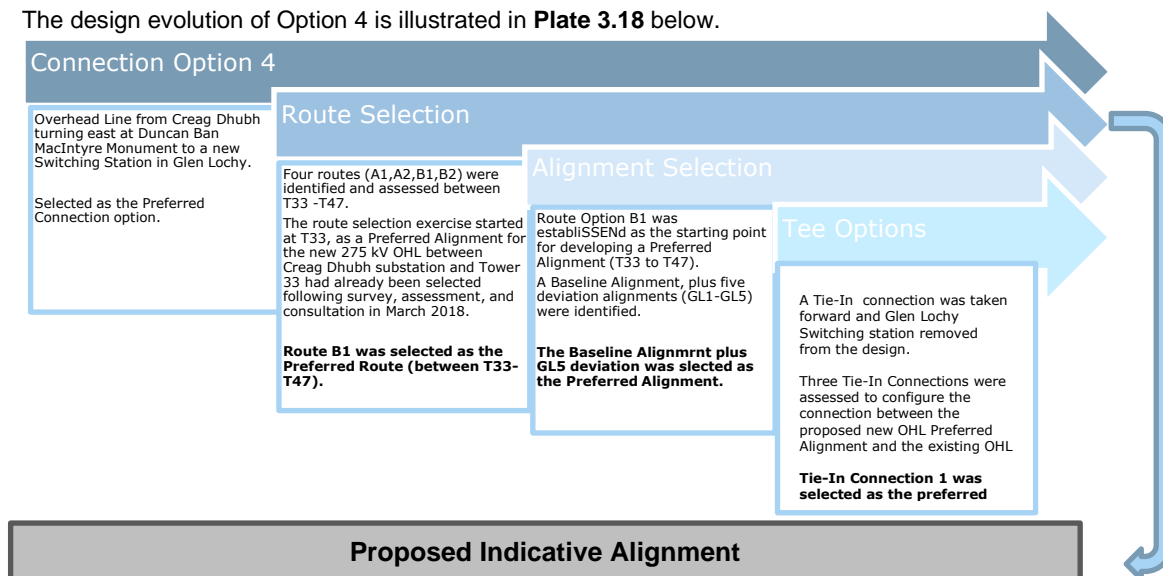


Plate 3.18: Design Evolution of the Proposed Indicative Alignment

- 3.4.4 Further details on the Proposed Development) can be found in **Chapter 2: Project Description (EIAR Volume 2)**. A summary of how consultation has influenced design is provided in **Table 3.1**. Further details on consultation are provided within each technical chapter as well as **Technical Appendix (TA) 4.3: Consultation Register (EIAR Volume 4)**.
- 3.4.5 Details of all the key routing and consultation documents produced through the project evolution are also provided in **Table 3.2**.

Table 3.1: How consultation has influenced design

Topic	Key Feedback and Considerations
LVIA and RVAA	<p>Feedback has been received (from local residents and statutory bodies) throughout the routing process in relation to proximity to residential properties, impacts to landscape and visual amenity, and the proximity of the project to the existing Scottish Power transmission line. There were requests that the line be undergrounded in Dalmally due to these concerns.</p> <p>In response to these concerns by designing the Proposed Development to sit on lower elevations, allowing the alignment to be backclothed by topography in views from most publicly accessible locations, and reducing the visual impact of the overhead line. Additionally local topography, woodland and areas of forestry would provide localised screening of some towers, tower bases and access tracks.</p> <p>The Proposed Development has been designed to avoid passing through or in proximity to main settlements, such as Dalmally and Stronmilchan. The majority of properties would be located at distances of over 1 km from the Proposed Development, with the closest property located within approx. 400 m of the alignment.</p> <p>Residential Visual Amenity was a primary consideration throughout the alignment selection process. Visualisations were prepared to provide the project team with understanding of the visual impacts at the Blarchaorain and Brackley properties, and towers were micrositied where possible (within the restrictions of other environmental constraints) to seek to reduce visual impacts on the amenity of these properties.</p>
Biodiversity	<p>In response to Nature Scot's feedback, the Proposed Development has, as far as possible, been designed to avoid habitats of highest ecological importance and highest sensitivity to impacts. This includes priority peatland habitat and Ancient Woodland.</p> <p>Blanket bog (Annex 1 habitat) has been avoided or loss minimised where possible. The Proposed Development would minimise potential effects on peat forming habitats and Ground Water Dependent Terrestrial Ecosystems (GWDTEs), through the use of good practice construction methods.</p>
Ornithology	<p>In response to feedback from NatureScot, amendments have been made throughout the routing process to avoid any direct impacts to Glen Etive and Glen Fyne Special Protection Area (SPA). In response to comments from NatureScot and RSPB Scotland, and in line with Conservation (Natural Habitats &c.) Regulations 1994 a Habitat Regulations Assessment (Stage 1- Screening) has also been completed (TA 7.3, EIAR Volume 4).</p> <p>In response to feedback from RSPB Scotland, alignment decisions have been taken to avoid (where possible), and minimise the potential for disturbance related effects, for example, on Black Grouse <i>Tetrao tetrix</i>. Construction will also take place outside of the main lekking period to reduce disturbance on a Black Grouse lek within proximity of the Proposed Indicative Alignment.</p> <p>In response to RSPB feedback, potential impacts to golden eagle, white-tailed eagle <i>Haliaeetus albicilla</i>, hen harrier <i>Circus cyaneus</i>, peregrine <i>Falco peregrinus</i> and merlin <i>Falco columbarius</i> have been considered and assessed as part of the EIAR (where relevant). Line marking will be implemented (where appropriate) to reduce the collision risk for white tailed eagles.</p>

Table 3.1: How consultation has influenced design

Archaeology and Cultural Heritage	<p>In response to feedback received from Historic Environment Scotland (HES), alignment decisions were made with reference to minimising the potential for significant setting effects on designated heritage assets.</p> <p>HES advised that three Scheduled Monuments, Auchtermally or Uachdar Mhaluidh, Deserted Township (SM 4019), Tom a'Chaisteal dun, Teatle Water (SM 4209) and Dychlie, deserted crofts (SM 5149) are likely to have potential adverse impacts on their settings from the Proposed Development and consider that photomontages are likely to be required to demonstrate the impacts on the settings of these heritage assets.</p> <p>In response, photomontage visualisations were provided for Auchtermally or Uachdar Mhaluidh, Deserted Township (SM 4019) and Dychlie, deserted crofts (SM 5149) from locations agreed with HES, and a photo-wire was produced for the Tom a'Chaisteal dun, Teatle Water (SM 4209).</p> <p>Micrositing of proposed towers close to Scheduled Monuments Tom a'Chaisteal dun, Teatle Water (SM 4209), and Dychlie, deserted crofts (SM 5149) will not be undertaken, so as to limit the impact on the settings of the Scheduled Monuments.</p>
Hydrology, Hydrogeology, Geology and Soils	<p>SEPA noted that they do not necessarily have concerns regarding the principle of undergrounding options. However, SEPA also noted that any work in or near the water environment has the potential to result in a significant adverse impact. Therefore, pollution prevention mitigation would be required to prevent/minimise sediment pollution for the duration of the works. SEPA added that works within an active flood plain may require special consideration. To avoid this risk, alternative OHL options were reviewed (as discussed in Section 3.3).</p> <p>The Applicant issued a consultation letter to SEPA in September 2021, seeking comments on the draft Outline Peat Management Plan (TA 10.2, EIAR Volume 4), specifically regarding the proposed strategy for mitigating potential adverse effects on peat, and measures for re-using surplus peat from the construction of the associated Creag Dhubh substation, but the same principles discussed apply for the Proposed Development:</p> <p>SEPA confirmed there were no objections with regard to the re-use of peat to dress slopes and shoulders around the substation platform and tracks. SEPA also support the minimising excavation for temporary infrastructure such as construction compounds through the use of geotextile membranes and stone on top of peat, and reinstated on completion. SEPA does not accept the use of peat in mounds and bunds.</p> <p>SEPA outlined that the Applicant are to explore potential restoration opportunities with possible partners such as Loch Lomond and Trossachs National Park, and to identify if any peat extraction sites are located close to the development site for restoration using surplus peat generated. Agreement in principle with potential land owners to be provided post submission. There are planning and waste permitting considerations to be aware of if taking peat off site.</p>
Forestry	<p>Following feedback from Scottish Forestry and in line with the Scottish Government's Control of Woodland Removal Policy (CoWRP), alignment decisions have been made to seek to minimise direct effects on all woodland, and semi-natural and Ancient Woodland in particular, where possible. Compensatory planting will also be undertaken to achieve no net loss of woodland for the Proposed Development.</p> <p>The Applicant has committed to working with forestry owners to agree felling proposals and develop revised forest design plans, which incorporate the proposed OHL and make provisions for long term land management.</p>

Table 3.2: Summary of Routing and Consultation Documents through the Project Evolution

Year	Routing/Consultation Stage	Document/Website Reference
2016 March and October)	The Applicant consulted with the public and statutory consultees on a refined corridor within the Strategic Study Area and requested general feedback on the proposals.	North Argyll Reinforcements, Consultation Booklet. SSEN Transmission, March 2016. Available here https://www.ssen-transmission.co.uk/media/4485/north-argyll-information-boards-march-2016.pdf North Argyll Reinforcements, Consultation Booklet. SSEN Transmission, October 2016. Available here https://www.ssen-transmission.co.uk/media/4486/north-argyll-consultation-booklet-oct-16.pdf .
2017	The route selection process was consulted on in July 2017. From this process, a Proposed Route (Route 6) was selected to be brought forward to the alignment selection stage. Following the last consultation, the Applicant undertook a cable feasibility study investigating the possible cable options around Dalmally. A Preferred Alignment (Option 1) was then established and taken forward to consultation.	North Argyll to Dalmally Route Selection Study Report (SSEN Transmission, 2016). Creag Dhubh to Dalmally 275kV Consultation Document: Project Update and Alternative Connection Options. SSEN Transmission, August 2020. Available here https://www.ssen-transmission.co.uk/media/4677/creag-dhubh-to-dalmally-275kv-connection-consultation-document-web-version.pdf Alignment Selection Report (SSEN Transmission, 2017).
2018	Cabling update meeting (January 2018) Glenorchy and Innishail CC The Applicant consulted (March 2018) with the public and statutory consultees on the Preferred Alignment (Option 1).	North Argyll Reinforcements, Consultation Booklet. SSEN Transmission, March 2018. Available here https://www.ssen-transmission.co.uk/media/4487/mar-18-north-argyll-booklet.pdf . Creag Dhubh to Dalmally 275kV Consultation Document: Alignment Selection. SSEN Transmission, March 2018.
2020	Consultation on Option 1, underground cable options (Option 2) and alternative overhead line options (Option 3) that would avoid crossing the Strath of Orchy.	Creag Dhubh to Dalmally 275kV Consultation Document: Project Update and Alternative Connection Options. SSEN Transmission, August 2020. Available here https://www.ssen-transmission.co.uk/media/4677/creag-dhubh-to-dalmally-275kv-connection-consultation-document-web-version.pdf . The Report on Consultation Creag Dhubh to Dalmally 275kV Connection, published in November 2020, included a Frequently Asked Questions (FAQs) section in Appendix 3, this document can be accessed on the project website at the following link: https://www.ssen-transmission.co.uk/media/4939/report-on-consultation-creag-dhubh-to-dalmally-275kv-connection-november-2020-web-version.pdf .

Table 3.2: Summary of Routing and Consultation Documents through the Project Evolution

2021	<p>Draft Alignment Selection Study Report: Connection to Potential Glen Lochy Switching Station.</p> <p>Alignment Selection Study Report Addendum: SPEN Line Tee Options.</p> <p>Consultation on the Preferred Alignment and the Preferred Switching Station Site.</p>	<p>Creag Dhubh to Dalmally 275kV Connection. Draft Alignment Selection Study Report: Connection to Potential Glen Lochy Switching Station. SSEN Transmission, April 2021.</p> <p>Consultation Document Alignment Selection - Connection to Proposed Glen Lochy Switching Station, Creag Dhubh Substation and Project Update. SSEN Transmission, June 2021. Available at https://www.ssen-transmission.co.uk/media/5542/lt29-creag-dhubh-to-dalmally_consultation-document_june-2021_issue.pdf.</p> <p>Virtual Consultation- https://www.ssen-transmission.co.uk/projects/argyll-and-kintyre-275kv-strategy/.</p> <p>Following a public meeting held on 4th October 2021, a further Frequently Asked Questions (FAQs) was published in October 2021 in to provide further information on the questions and themes raised by the community. This document can be accessed on the project website at the following link: https://www.ssen-transmission.co.uk/media/5936/dalmally-community-qa-21-oct-2021.pdf.</p> <p>Creag Dhubh to Dalmally 275Kv Connection, Report on Consultation. SSEN Transmission, November 2021. Available at https://www.ssen-transmission.co.uk/media/6073/creag-dhubh-dalmally-275kv-connection-roc-with-figures-november-2021.pdf.</p>
	OHL Tie-In at Glen Lochy (Succoth Glen)	<p>Creag Dhubh to Dalmally 275kV Connection. Alignment Selection Study Report Addendum: SPEN Line Tee Options . SSEN Transmission, October 2021.</p> <p>Creag Dhubh to Dalmally 275Kv Connection, Report on Consultation. SSEN Transmission, November 2021. Available at https://www.ssen-transmission.co.uk/media/6073/creag-dhubh-dalmally-275kv-connection-roc-with-figures-november-2021.pdf - Additional information was provided in Section 3.2 and Section 6 of the ROC for the tie in.</p>