Scottish & Southern Electricity Networks

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Report on Consultation – Alignment Options

Achany Wind Farm Extension Grid Connection

September 2024

REF: LT361/362

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GLOSSARY

Term	Definition
Alignment	A centre line of an OHL, along with location of key angle structures.
Alignment Option	A distinct alignment option.
Alignment (preferred)	An alignment for the overhead line taken forward to stakeholder consultation following a comparative appraisal of alignment variants
Alignment (proposed)	An alignment taken forward to consent application. It comprises a defined centre line for the overhead line and includes an indicative support structure (tower or pole) schedule, also specifying access arrangements and any associated construction facilities.
Ancient Woodland Inventory (AWI)	The Ancient Woodland Inventory (AWI) is a provisional guide to the location of Ancient Woodland. It contains three main categories of woodland, all of which are likely to be of value for their biodiversity and cultural value by virtue of their antiquity: Ancient Woodland (1a and 2a); Long-established woodlands of plantation origin (LEPO) (1b and 2b); and other woodlands on 'Roy' woodland sites (3).
Biodiversity Net Gain (BNG)	A process intended to leave nature in a better state than it started using good practice principles established by the Business and Biodiversity Offset Programme (BBOP) and organisations including Construction Industry Research and Information Association (CIRIA), The Chartered Institute of Ecology and Environmental Management (CIEEM) and the Institute of Environmental Management and Assessment (IEMA).
Conductor	A metallic wire strung from structure to structure, to carry electric current.
Consultation	The dynamic process of dialogue between individuals or groups, based on a genuine exchange of views and, normally, with the objective of influencing decisions, policies, or programmes of action.
Corridor	A linear area which allows a continuous connection between the defined connection points. The Corridor may vary in width along its length; in unconstrained areas it may be many kilometres wide.
Environmental Appraisal (EA)	When a Proposed Development is unlikely to give rise to significant environmental effects and is not considered an EIA development it would not be subject to an EIA and the preparation of an EIA Report. In this circumstance, a voluntary Environmental Appraisal (EA) detailing the results of surveys, and any appropriate mitigation, can accompany a consent application.
Environmental Impact Assessment (EIA)	Environmental Impact Assessment. A formal process codified by EU directive 2011/92/EU, and subsequently amended by Directive 2014/52/EU. The national regulations are set out in The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017. The EIA process is set out in Regulation 4(1) of the regulations and includes the preparation of an EIA Report by the developer to systematically identify, predict, assess and report on the likely significant environmental effects of a proposed project or development.
Habitat	Term most accurately meaning the place in which a species lives, but also used to describe plant communities or agglomerations of plant communities.
Kilovolt (kV)	One thousand volts.
LVIA	Landscape and Visual Impact assessment.
Overhead line (OHL)	An electric line installed above ground, usually supported by lattice steel towers or wood poles.
Route	A linear area of approximately 1 km width (although this may be narrower/wider in specific locations in response to identified pinch points / constraints), which provides a continuous connection between defined connection points.

Term	Definition
Route (preferred)	A route taken forward to stakeholder consultation following a comparative appraisal of route options.
Route (proposed)	A route taken forward following stakeholder consultation to the alignment selection stage of the routeing process.
Routeing	The work undertaken which leads to the selection of a proposed alignment, capable of being taken forward into the consenting process under Section 37 of the Electricity Act 1989.
Span	The section of overhead line between two structures.
Stakeholders	Organisations and individuals who can affect or are affected by SSEN Transmission works.
Underground Cable (UGC)	An electric cable installed below ground, protected by insulating layers and marked closer to the surface to prevent accidental damage through later earthworks.
WLA	Wild Land Area as identified by NatureScot
Volts	The international unit of electric potential and electromotive force.

EXECUTIVE SUMMARY

This Report on Consultation has been prepared by ASH design+assessment Limited on behalf of Scottish and Southern Electricity Networks Transmission (herein referred to as 'SSEN Transmission'), operating under licence as Scottish Hydro Electric Transmission plc, who own, operate and develop the high voltage electricity transmission system in the north of Scotland and remote islands. This document has been prepared to provide a summary of the responses received from key stakeholders (including statutory and non-statutory consultees, local communities, landowners and individual residents) during a consultation period held between May and July 2023, in response to the preferred alignment identified for a new 132 kV single circuit overhead line (OHL) between the consented Achany Wind Farm Extension on-site substation and the existing Shin substation.

The consented Achany Wind Farm Extension will be constructed on land adjacent to the operational Achany Wind Farm, approximately 4.5 km north of the village of Rosehall and 11 km north-west of Lairg. It is anticipated to generate in excess of 80 Megawatts (MW) and to comprise of 18 turbines which require connection to the electricity transmission network at Shin substation by 30 March 2028. It is proposed that this would be achieved via the construction and operation of a new 132 kV single circuit OHL. In accordance with the Applicant's statutory duties, SSEN Transmission are developing the connection arrangement for the Achany Wind Farm Extension. A section 37 application under the Electricity Act 1989 is anticipated to be submitted in May 2024.

The programme of consultation was designed to engage with stakeholders including statutory and non-statutory consultees, local communities, landowners and individual residents in order to invite feedback on the rationale for and approach to, the selection of the preferred alignment. A Consultation Document [1] setting out the results of the alignment selection process was made available for download via the following online project website from 13 June 2023: https://www.ssen-transmission.co.uk/projects/project-map/achany-wind-farm-extension-connection

An in-person consultation event was also undertaken to seek the views of the local community. The consultation event was held on Wednesday 14 June 2023, 15:00 – 19:00 at Rosehall Hall, in Rosehall.

This Report on Consultation also provides a summary of how SSEN Transmission have responded to comments received by key stakeholders on the preferred alignment and details the actions that will be taken as the project progresses.

This report describes the key responses received and provides detail on the actions proposed in response to the issues raised. The consultation process concluded that the preferred alignment as described within the Alignment Consultation Document,[1] should be subject to revision due to comments received in relation to peat, proximity to dwellings and landowner concerns. As such, further work and consultation with interested parties has been undertaken prior to identification of a proposed alignment, as described in this report.

[1] SSEN Transmission (June 2023) Achany Extension Grid Connection Alignment Options - Consultation Document

1. INTRODUCTION

1.1 Background and Purpose of Document

1.1.1 This Report on Consultation has been prepared by ASH design+assessment Limited ("ASH") on behalf of Scottish and Southern Electricity Networks ("SSEN Transmission"), operating under licence held by Scottish Hydro Electric Transmission plc, who own, operate and develop the high voltage electricity transmission system in the north of Scotland and remote islands.

1.1.2 SSEN Transmission are proposing to construct a new 132 kV overhead line (OHL) between the consented Achany Wind Farm Extension on-site substation and the existing Shin substation. The project is known as the Achany Wind Farm Extension Connection.

1.1.3 In accordance with SSEN Transmission's guidance,[2] a process of consultation on the preferred route (October 2022 and January 2023) and the preferred alignment and design solution (between May and July 2023), has been undertaken.[1]

1.1.4 This Report on Consultation documents the consultation process for the project between May and July 2023, during the alignment selection stage of the project. The programme of consultation was designed to engage with key stakeholders including statutory and non-statutory consultees, local communities, landowners and individual residents in order to invite feedback on the rationale for and approach to, the selection of the preferred alignment.

1.1.5 This report describes the key responses received and details the actions taken in response to the issues raised in determining a proposed alignment.

1.2 Objectives

1.2.1 The objectives of this report are:

- To document the consultation process between May and July 2023;
- To summarise feedback received from stakeholders;
- To document actions undertaken in response to feedback where relevant; and
- To clearly set out how the proposed alignment has been informed by the consultation process.

1.3 Document Structure

1.3.1 This Report on Consultation is structured as follows:

Section 1: Introduction – setting out the purpose of the Report on Consultation;

Section 2: Project Overview – outlines the background to the project and provides a description of the key elements;

Section 3: Identification of preferred alignment and Consultation – describes how the preferred alignment was identified, the framework for consultation and methods which have been employed;

Section 4: Consultation Responses from Statutory and Non-Statutory Consultees – summarises the responses from these bodies;

Section 5: Community Consultation Responses – summarises the responses and key comments and issues arising from the public through the consultation process;

Section 6: Proposed Alignment – describes how the comments and issues raised during consultation led to the confirmation of a proposed alignment; and

Section 7: Conclusions and Next Steps – provides a summary of the conclusions reached and actions going forward.

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

2. PROJECT OVERVIEW

2.1 Proposals Overview

2.1.1 The consented Achany Wind Farm Extension would be constructed on land adjacent to the operational Achany Wind Farm, approximately 4.5 km north of the village of Rosehall and 11 km north-west of Lairg. It is anticipated to generate in excess of 80 Megawatts (MW) and to comprise 18 turbines which require connection to the electricity transmission network by 30 March 2028. The new connection would be routed between the consented Achany Wind Farm Extension on-site substation and the existing Shin substation.

2.2 Design Options Considered

2.2.1 It is proposed that the connection would be an OHL supported by trident H-wood pole. A short section of UGC would be required as it connects with the wind farm substation due to the location of wind turbines and the need to avoid OHL infrastructure within their vicinity.

Overhead Line General Construction Activities

2.2.2 To facilitate the construction of the OHL components of the connection, the main tasks are anticipated to include:

- establishment of one or more construction compounds;
- establishment of suitable laydown areas for materials;
- construction of temporary stone tracks and other temporary access solutions;
- delivery of structures and materials to site;
- excavation and construction works associated with foundations, as necessary;
- assembly and erection of wood poles;
- stringing of conductors using hauling ropes and winches;
- construction of one cable sealing end compound (to facilitate transition from OHL to UGC); and
- inspections and commissioning.

2.2.3 The trident wood poles would have a height of approximately 16 m (including insulators and support). The proposed trident wood pole would support three conductors (wires) in a horizontal flat formation. The spacing between poles would vary depending on topography and altitude. The specific distances would be determined after a detailed line survey but would be approximately 100 m apart. A photograph showing a typical wood pole trident line is shown in Plate 2.1 below.

Plate 2.1: Trident H Wood Pole

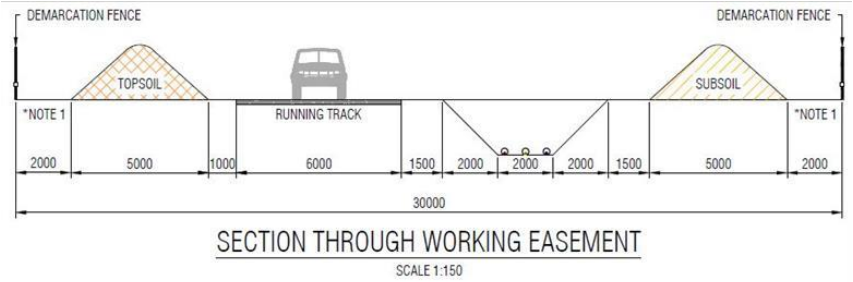
Underground Cable General Construction Activities

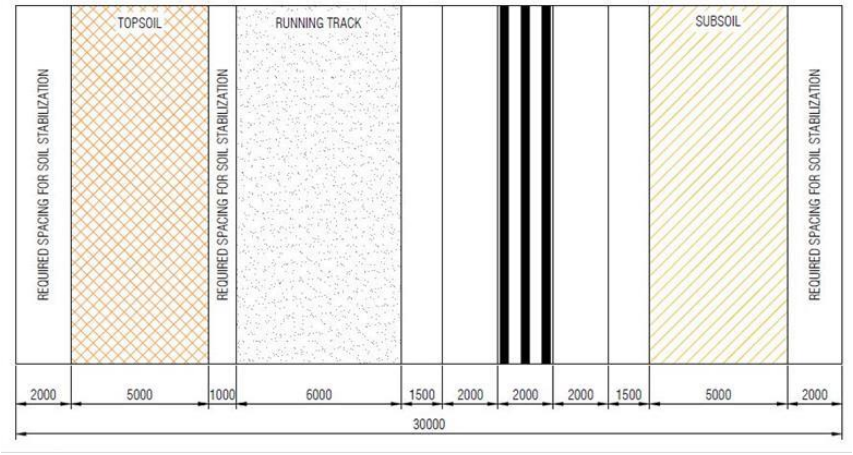
2.2.4 It is anticipated that installation of the UGC would involve the following tasks:

- Establish a working corridor approximately 30 m wide, centred on the cable centreline;
- Excavate a trench up to 2 m in depth and 1 m wide, widening through benching and battering where stability and safety concerns arise;
- Clear out all materials likely to damage cable ducts, e.g. clods, rocks, stones and organic debris, and employ use of pumps to remove any water;
- Place cabling within the trench, surrounded by engineered backfill in suitable layers for protection, with marker tile and tape placed above the cable line;
- Installation of joint bays with above ground link pillars; and
- Reinstate excavated surface layers in reverse order.

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

Plate 2.2 Example of a typical UGC Construction Corridor





Forestry Removal

2.2.6 Construction of the project may require the removal of areas of commercial forest. This would be undertaken in consultation with affected landowners. Scottish Forestry are also being consulted throughout the development of the project and the project would adhere to Scottish Government's Control of Woodland Removal Policy.[3]

[3] Forestry Commission Scotland (2009) Control of Woodland Removal Policy

2.2.7 After felling, any timber removed that is commercially viable would likely be sold and the remaining forest material would be dealt with in a way that delivers the best practicable environmental outcome and is compliant with waste regulations.

2.2.8 An operational corridor would be required to enable the safe operation and maintenance of the OHL. This would vary depending on the type of woodland (based on species present) in proximity to the OHL, and the height of support structures used within each woodland area.

Access Strategy

2.2.9 Vehicle access is required to each pole location during construction to allow excavation and creation of foundations and pole installation. Existing tracks would be used where possible. Preference will be given to lower impact access solutions including the use of low pressure tracked personnel vehicles and temporary track solutions in boggy / soft ground areas to reduce any damage to, and compaction of, the ground. These journeys would be kept to a minimum to minimise disruption to habitats along the route. However, temporary tracks may be necessary in some areas depending on existing access conditions, terrain and altitude.

Programme

2.2.10 It is anticipated that construction of the project would take place over a 16-month period, following the granting of consents, although detailed programming of the works would be the responsibility of the Contractor in agreement with SSEN Transmission.

2.2.11 Every effort would be made to minimise disturbance to landowners, local residents and other stakeholders during construction by providing regular updates on works and restrictions via the site manager, community liaison manager and corporate affairs team.

2.3 Biodiversity Net Gain

2.3.1 Biodiversity Net Gain (BNG) is a process which aims to leave the natural environment in a demonstrably better state than before development works began.

2.3.2 SSEN Transmission has developed a BNG toolkit based upon the accepted Natural England Biodiversity Metric 3.1 [4],[5],[6] which aims to quantify biodiversity based upon the value of habitats for nature.

2.3.3 For BNG to be used appropriately and to generate long-term gains for nature, the good practice principles established by the Business and Biodiversity Offset Programme (BBOP)[7] should be followed. These principles have been established in the context of UK development by the Construction Industry Research and Information Association (CIRIA), the Chartered Institute for Ecology and Environmental Management (CIEEM) and the Institute of Environmental Management and Assessment (IEMA)[6]. The BNG process for the Proposed Development adheres to these principles.

2.3.4 The BNG toolkit applied on this project does not apply to statutory designated sites or irreplaceable habitats (e.g. blanket bog, ancient woodland). Where a project impacts upon such areas, alternative means of compensation would be secured (e.g. habitat management plans, compensatory planting or compensatory requirements for designated sites).

[4] Natural England (2023) The Biodiversity Metric 4.0: auditing and accounting for biodiversity value: User Guide. Natural England Joint Publication JP039 Available online http://publications.naturalengland.org.uk/

[5] Natural England (2023) The Biodiversity Metric 4.0: auditing and accounting for biodiversity value: Technical Supplement. Natural England Joint Publication JP039 Available online http://publications.naturalengland.org.uk/

[6] Natural England (2023) The Biodiversity Metric 4.0: auditing and accounting for biodiversity value. Calculation Tool: Short Guide (Beta Version, July 2019). Available online http://publications.naturalengland.org.uk/

[7] Guidance Notes to the Standard on Biodiversity Offsets (2012). Business and Biodiversity Offsets Programme (BBOP). https://www.forest-trends.org/wp-content/uploads/imported/BBOP_Standard_Guidance_Notes_20_Mar_2012_Final_WEB.pdf

SSEN Transmission's Biodiversity Ambition

2.3.5 SSEN Transmission is committed to protecting and enhancing the environment by minimising the potential impacts from their construction and operational activities, as outlined in the recently published biodiversity report[8]. As part of this approach, SSEN Transmission has made commitments within its Sustainability Strategy (2018)[9] and Sustainability Plan (2019)[10] for new infrastructure projects to:

- ensure natural environment considerations are included in decision making at each stage of a project's development;
- utilise the mitigation hierarchy to avoid impacts by consideration of biodiversity in project design;
- positively contribute to the UN and Scottish Government Biodiversity strategies by achieving biodiversity enhancements on projects gaining consent; and
- work with their supply chain to gain the maximum benefit during asset replacement and upgrades.

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

[8] SSE (2022) Positive for the Planet – Renewable Energy with a Biodiversity Net Gain https://www.sserenewables.com/media/vgsdoav3/sser-biodiversity-net-gain-report-nov-final.pdf

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

[10] Our Sustainability Plan: Turning Ambition into Action. (2019) SSEN Transmission. https://www.ssen-transmission.co.uk/media/3215/our-sustainability-plan-consultation-report.pdf

3. IDENTIFICATION OF PREFERRED ALIGNMENT AND CONSULTATION

3.1 Introduction

3.1.1 The Consultation Document[11] sets out the approach to the consideration and appraisal of alignment options, informed by SSEN Transmission's guidance 'Procedures for Routeing Overhead Lines and Underground Cables of 132 kV and above'. The guidance sets out SSEN Transmission's approach to selecting a route and alignment for an OHL and UGC. This document helps SSEN Transmission to meet its obligations under Schedule 9 of the Electricity Act 1989, which requires transmission license holders:

- To have a 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 interests; and
- To do what they reasonably can to mitigate any effect that the proposals would have on the natural beauty of the countryside or on any such flora, fauna, features, sites, buildings or objects.

3.1.2 In consideration of the principles outlined in the guidance document, the method of identifying a preferred alignment involved the following 4 key tasks:

- Identification of the baseline situation;
- Identification of alignment options;
- Environmental and engineering analysis of alignment options and alignment variants; and
- Identification of a preferred alignment.

3.2 Identification of a Preferred Alignment

3.2.1 The preferred alignment was selected on the basis that it is considered to provide an optimum balance of environmental, technical, and economic factors. The preferred alignment that was presented within the Consultation Document is shown on **Figure 1,** and comprised the Baseline Alignment, with Alignment Variant 1 and Alignment Variant 5. The alignment options presented at alignment stage consultation can be seen in **Figure 2**.

3.3 The Consultation Process

Route Selection Stage

3.3.1 In accordance with SSEN Transmission's guidance,[12] a process of consultation on the preferred route has previously been undertaken, seeking comments from statutory and non-statutory consultees, and members of the public.

3.3.2 In October 2022, a route stage Consultation Document[13] was prepared to set out the project need and seek comments from stakeholders and members of the public on the route option studies undertaken, and the rationale for, and approach to, the selection of the preferred route.

3.3.3 An in-person consultation event took place on 22 November 2022 at Lairg Community Centre. The consultation event was advertised in the local press, SSEN Transmission's social media channels and the dedicated project website. A mail drop of a booklet and letter informing of the event was also carried out to 1393 households along the route options ahead of the consultation.

3.3.4 Comments received were documented in a Report on Consultation (April 2023)[14] which set out the consultation process for the Proposed Development between October 2022 and January 2023, during the route option stage of the Proposed

11 SSEN Transmission (June 2023) Achany Extension Grid Connection Alignment Options - Consultation Document
12 SSEN Transmission (September 2020), Procedures for Routeing Overhead Lines and Underground Cables of 132 kV and above
13 Achany Wind Farm Extension Grid Connection: Consultation Document (Route Options), October 2022, produced by SSEN Transmission
14 Achany Wind Farm Extension Grid Connection: Report on Consultation (Route Options), April 2023, produced by SSEN Transmission

Development. The Report on Consultation also confirmed that the preferred route would be taken forward as the proposed route for the consideration of alignment options.

Alignment Selection Stage

3.3.5 In accordance with SSEN Transmission's guidance a similar process of consultation on the preferred alignment has now also been undertaken.

Virtual Meetings

3.3.6 A pre-alignment selection stage consultation virtual meeting with representatives from Forestry and Land Scotland (FLS) was held on 22nd March 2023, given the interaction with the project and FLS land. This meeting summarised the conclusions of the route selection stage and provided an opportunity for further consultation with FLS on the alignment options and variants being considered. At this meeting, alignment variants 8, 9 and 11 (see **Figure 2**) were identified with FLS input. SSEN Transmission committed to take these variants forwards for further consideration as part of the alignment options appraisal to understand the engineering, environmental and cost constraints associated with each.

3.3.7 SSEN Transmission held a further virtual meeting with representatives from FLS on 25th May 2023. At this meeting, SSEN Transmission presented the full collection of alignment options and variants being considered (see **Figure 2**) and followed with a discussion on FLS comments and suggested actions.

Consultation Document

3.3.8 The Alignment Options Consultation Document (June 2023) was produced detailing the selection process for the preferred alignment, taking account of environmental, economic and technical factors. The Consultation Document was emailed to statutory consultees on 8 June 2023, and made available for download on 13 June 2023 from the project website: https://www.ssen-transmission.co.uk/projects/project-map/achany-wind-farm-extension-connection

3.3.9 **Table 3.1** details the stakeholders in receipt of the Consultation Document or otherwise informed of the website details:

Table 3.1: List of Stakeholders

Stakeholders	
Statutory Consultees	
Energy Consents Unit (ECU)	Historic Environment Scotland (HES)
NatureScot	Scottish Environment Protection Agency (SEPA)
The Highland Council (THC), including Local Ward Councillors	
Non-Statutory Consultees	
Ardgay and District Community Council	Forestry and Land Scotland (FLS)
Rogart Community Council	Rosehall Wind Farm

3.3.10 Landowners were made aware of the Alignment Options Consultation Document and local community councils and ward councillors were notified regarding the consultation events. Feedback on the Alignment Options Consultation Document was requested by 14th July 2023.

Public Consultation Events

3.3.11 An in-person consultation event took place on Wednesday 14 June 2023, 15:00 – 19:00 at Rosehall Hall, in Rosehall.

3.3.12 Consultation events were advertised in the local press, SSEN Transmission's social media channels and the dedicated project website. A mail drop of a booklet and letter informing of the event was also carried out to 1,393 of households ahead of the consultation.

3.3.13 A total of 29 people attended the public consultation event. Seven feedback forms were received by post or online.

4. CONSULTATION RESPONSES FROM STATUTORY AND NON-STATUTORY CONSULTEES

4.1 Introduction

4.1.1 **Table 4.1** sets out a summary of the feedback received by statutory and non-statutory consultees following the consultation period (May and July 2023). A response to the feedback is also provided by SSEN Transmission, together with confirmation of the action to be taken, where relevant.

Table 4.1: Statutory and Non-Statutory Consultee Feedback

Stakeholder	Summary of Feedback	Response by SSEN Transmission
Statutory		
THC	THC pointed out that there appears to be scope on the section north of the A839 for the route to follow existing forestry tracks and areas of more open ground, particularly to the south of Rosehall Wind Farm.	The alignment variants that were consulted on can be seen in **Figure 2**. Alignment Variant 3 to the north of Durcha does follow existing forestry tracks to the south of Rosehall Wind Farm and has been considered during the alignment selection process. Subsequent to the consultation, it been considered by SSEN Transmission that it would be appropriate to take the Alignment Variant 3 forwards as part of the proposed alignment to due to the properties at Durcha. Utilising Alignment Variant 3 would also follow the route of existing forestry tracks more so than the preferred alignment as presented in the alignment stage consultation document.
	THC outlined that regardless of the route ultimately chosen, the River Oykel is designated as a Special Area of Conservation (SAC) and any information submitted with the forthcoming Section 37 application to the Energy Consents Unit should detail how the potential impacts of the transmission route on this natural heritage resource, particularly in terms of soil and pollutant runoff, can be satisfactorily avoided or mitigated against.	The River Oykel SAC lies between approximately 400 m and 700 m downstream from the Proposed Development at its closest points. It is unlikely that works associated with construction would impact water quality and compromise the qualifying interests of the River Oykel SAC. Nevertheless, this will be considered within the EA to support a future Section 37 application. It is anticipated that appropriate site design and the application of best practice measures such as the use of the Applicant's SPPs and GEMPs (see Section 1.6) during construction and maintenance works would effectively reduce or eliminate any potential effects.
	THC outlined that every effort should be taken to avoid disturbance of priority peatlands, although it is recognised that this may be unavoidable in some sections of the route.	Through the routeing and alignment selection stages, consideration has been given to minimising impacts on priority peatlands as far as possible. This has included peat probing along alignment options and variants to determine the presence and depth of peat.
	THC outlined that any further submission must also include details of forestry removal and all temporary and permanent access tracks and laydown areas that are proposed.	This information will be included within the application for consent where possible. In some instances, where details are not known at this stage, separate consents may be sought by the Principal Contractor.
NatureScot	Naturescot welcomed the opportunity to comment on the alignment proposals. In summary, their advice was largely unchanged from the route selection consultation stage; the alignments did not offer a significant or material difference to the protected areas, habitats, and species.	Previous comments from NatureScot are noted. The selection of a preferred alignment has been informed by detailed habitat and protected species survey findings, and these will continually be reviewed as the project progresses.

Stakeholder	Summary of Feedback	Response by SSEN Transmission
	NatureScot noted that the proposal lies close to the Caithness and Sutherland Peatlands Special Protection Area (SPA) and Ramsar site, protected for its range of breeding birds. NatureScot outlined that survey work will be required to inform an assessment of the implications of an OHL and should follow NatureScot guidance on power lines and survey methods for onshore wind farms. NatureScot recommended their guidance on disturbance distances for qualifying bird species is used when assessing impacts to birds along the route and when developing appropriate mitigation measures (where required). Additional advice on the scope of bird survey work was provided to ASH via e-mail on 22 November 2022 and on 23 June 2023.	The nature conservation sites of international importance have been considered during the appraisal of route and alignment options and will continue to be considered as the project progresses. NatureScot guidance on power lines and survey methods as well as NatureScot guidance on disturbance distances for qualifying bird species will be used when assessing impacts to birds along the OHL and when developing appropriate mitigation measures. The additional advice on the scope of bird survey work provided by NatureScot via e-mail on 22 November 2022 and on 23 June 2023 will continue to be referred to.
	NatureScot noted that the proposal lies close to the Caithness and Sutherland Peatlands SAC, protected for its range of upland habitats and for otter. Avoiding impacts to this site should be a key consideration in the design of a proposal in this area. Where impacts are identified, careful and thorough assessment will be required to demonstrate that a proposal can be built in this location without adverse effects on the qualifying interests of the site. The preferred alignment is outwith the water catchment for the SAC but it is within connectivity distance for otter. Where otter activity is identified, this should be fully considered as part of any upcoming application.	As above, the nature conservation sites of international importance have been considered during the appraisal of route and alignment options, and will continue to be considered as the project progresses. Protected species surveys will be undertaken and where otter activity is identified, will be considered as the project progresses.
	NatureScot noted that the proposal lies within the catchment of the River Oykel SAC, protected for its Atlantic salmon and freshwater pearl mussel. The potential for direct and indirect impacts to the SAC will therefore need to be considered further as part of any future planning application. Given the proximity of the route corridors and the SAC, pollution prevention and siltation measures will be very important to maintain good water quality and safeguard the SAC features. Any mitigation measures proposed should be fully detailed in any future application. NatureScot also recommend consulting SEPA in relation to impacts on the water environment.	As above, the nature conservation sites of international importance have been considered during the appraisal of route and alignment options and will continue to be considered as the project progresses. Pollution prevention and silt control measures will be considered as the project progresses, along with appropriate mitigation measures. SEPA have been consulted in relation to impacts on the water environment.
	The alignment options are close to Grudie Peatlands Site of Special Scientific Interest (SSSI) which is protected for its blanket bog and breeding peatland waders (dunlin, golden plover and greenshank). It also forms part of the larger Caithness and Sutherland Peatlands SAC/SPA/Ramsar site, and our advice given	This has been noted. This nationally protected site was taken into consideration during the appraisal of route and alignment options and will continue to be considered as the project progresses.

Stakeholder	Summary of Feedback	Response by SSEN Transmission
	above for this site will also be relevant for the SSSI. NatureScot are pleased to see that previous route options that crossed into the SSSI have now been discounted.	
	NatureScot are pleased to see that previous route options that crossed into the Kyle of Sutherland Marshes SSSI, protected for its wet woodland, flood-plain fen and flowering plants, have now been discounted. All alignment options are located within the surface water catchment of the Kyle of Sutherland Marshes though, so pollution prevention and siltation measures will be important to maintain good water quality and safeguard the notified features of the SSSI.	This has been noted. This nationally protected site was taken into consideration during the appraisal of route and alignment options and will continue to be considered as the project progresses. Pollution prevention and silt control measures will be considered and appropriate mitigation measures proposed. SEPA have been consulted in relation to impacts on the water environment.
	NatureScot note that the alignment options will pass through Class 1 and Class 2 areas of peatland. Class 1 and Class 2 areas are described as nationally important carbon-rich soils, deep peat, and priority peatland habitat likely to be of high conservation value and restoration potential. These areas are afforded significant protection under Scottish Planning Policy. As outlined in the consultation report, it will need to be demonstrated that any significant effects on these areas can be substantially overcome by design and micrositing plus other mitigation measures. Nature Scot outlined that where peat is present, specific peat surveys should be carried out in line with Scottish Government Guidance.	Areas of Class 1 and 2 peat soils were identified during route and alignment appraisals, and habitat and peat depth surveys have informed the selection of a preferred alignment and design solution, seeking to minimise impacts on priority peatland habitat where possible. Since the alignment stage consultation, peat probing has been carried out to establish the depth of peat along the preferred alignment and some of the alignment variants. Alignment Variant 5 which was presented as part of the preferred alignment goes through deeper peat than the Baseline Alignment does. It has since been considered by SSEN Transmission that although Alignment Variant 5 has other benefits, it would be more appropriate to take the Baseline Alignment forwards as part of the proposed alignment due to the presence of deep peat and priority peatland. This is confirmed within Section 6 of this report. An Outline Peat Management Plan and Peat Landslide Hazard Risk will be included as part of any future consent application.
	NatureScot note that the potential for impacts to protected species will also need to be fully assessed as part of any future application and agree that referencing any existing information for nearby wind farms will be helpful when considering the scope of survey work required. However, additional survey work will be required.	Protected species surveys have been carried out and will inform further assessment work to be undertaken as the project progresses, as well as identifying appropriate mitigation measures to minimise impacts, such as Species Protection Plans (SPPs).
	NatureScot referred to their previous correspondence at the route selection consultation stage and their advice presented. Naturescot also advised that any mitigation proposed for protected species should be outlined in appropriate Species Protection Plans (SPPs) and be included as part of any future planning application.	Previous comments from NatureScot are noted. Appropriate SPPs will be set out in the future application.

Stakeholder	Summary of Feedback	Response by SSEN Transmission
	Naturescot outlined that the OHL would extend into the Wild Land Area (WLA) 34: Reay – Cassley. The special qualities of WLAs are recognised within National Planning Framework 4 (NPF4). The turbines and associated infrastructure of the proposed windfarm will have a significant impact on the WLA. The OHL connection should be included as an element of the larger proposed wind farm development within a landscape and visual impact assessment, to inform any future planning application.	The special qualities of the WLA have been factored into the route and alignment selection process, and will be considered further as the project progresses.
	NatureScot do not consider that their advice on the Achany Extension Wind Farm proposal is materially affected as a result of the publication of NPF4 and they therefore refer the Applicant to their response (20 June 2022) to the Scottish Government on the Achany Wind Farm Extension regarding impacts on wild land.	This has been noted. NatureScot's response to the Scottish Government on the Achany Wind Farm Extension regarding impacts on wild land will be reviewed.
SEPA	To their response, SEPA attached their generic scoping requirements, but they also outlined that these should be considered within the context of NPF4. SEPA will be especially interested in the application clearly demonstrating how the mitigation hierarchy outlined in policy 5 has been applied.	All generic scoping requirements and comments will be considered in the context of NPF4, including Policy 5 relating to soils.
	SEPA outlined that the following key issues must be addressed in the next stage of the development before the alignment is finalised: (a) Minimising impacts on peat and peatland (b) Avoiding good quality or rare GWDTE habitats and minimising impacts on other GWDTE habitats, and (c) Avoiding impacts on watercourses and other water features by ensuring suitable buffers and using best practice design crossings for any temporary or permanent watercourse crossings.	The key issues referenced by SEPA have been considered during the route and alignment selection stage of the project to minimise impacts as far as possible.
	SEPA requested the inclusion of peat probing at the next stage as the alignment appears to traverse Class 1 and 2 peatland for a significant portion of its length. In accordance with NPF4 the finalised layout should show how the location of the towers avoids areas of deep peatland and any good quality habitat. The S37 application should include clear information on supporting infrastructure such as tracks including whether they are temporary or permanent and method of construction. They should be shown to minimise peat disturbance. A Peat Management Plan will also be required which should clearly demonstrate how all disturbed peat will be used in site reinstatement or peatland restoration. If there	Areas of Class 1 and 2 peat soils were identified during route and alignment appraisals, and habitat and peat depth surveys have informed the selection of a preferred alignment and design solution, seeking to minimise impacts on priority peatland habitat where possible. Since the alignment stage consultation, peat probing has been carried out to establish the depth of peat along the preferred alignment and some of the alignment variants. Alignment Variant 5 which was presented as part of the preferred alignment goes through deeper peat than the Baseline Alignment does. It has since been considered by SSEN Transmission that although Alignment Variant 5 has other benefits, it would be more appropriate to take the

Stakeholder	Summary of Feedback	Response by SSEN Transmission
	is the proposal to reuse disturbed peat in peatland restoration, then the submission should include information on the location of the areas to be restored and a justification for the need for the works.	Baseline Alignment forwards as part of the proposed alignment due to the presence of deep peat and priority peatland. This is confirmed within Section 6 of this report. An Outline Peat Management Plan and Peat Landslide Hazard Risk will be included as part of any future consent application.
	SEPA outlined that an NVC survey should be carried out of all wetland habitats. SEPA acknowledge that it will likely not be possible to avoid impacts on wet heath, but impacts should be minimised as much as possible and good quality habitat avoided. The layout submitted at the application stage should demonstrate that it has avoided any mapped acid flushes or other highly groundwater dependant habitats.	An NVC survey will be carried out of all wetland habitats, and appropriate information will be provided as part of a future application. Mitigation will be outlined to minimise and avoid impacts.
	In relation to the drawings to be provided SEPA asked that SSEN to please ensure they are at a scale and include relevant information to allow us to easily understand how the proposal will impact on aspects of the environment in which we have an interest. For example, showing buffers to watercourse and individual peat probes.	This comment is noted.
	In relation to the flood extents of the Allt an Rasail and River Shin, SEPA will wish to see it demonstrated that no landraising or temporary infrastructure will take place within these areas.	It is not anticipated that landraising or temporary infrastructure will be required within the flood extents of the Allt an Rasail and River Shin.
	SEPA asked that it be noted, that due to the timescale of this project, it is likely that it may fall under SEPA proposed new Integrated Authorisation Framework which may be in place in early 2024.	This has been noted
Historic Environment Scotland (HES)	HES had no substantial comments to make on the information presented in the alignment stage consultation document. They are content that none of the heritage assets within their remit has been overlooked during the selection of the preferred alignment or the potential alignment variants.	This has been noted
	HES outlined that their previous advice at route stage is still applicable. HES suggested their previous advice may be particularly helpful in terms of producing any relevant visualisations for heritage assets. They stated in their previous letter that: 'We recommend that as the development progresses and further consultation is undertaken that a visualisation is provided showing Invershin Farm, standing stone 220m ENE of (SM1791) in its setting looking north-west	This was noted at route selection stage. A visualisation will be prepared and included with the section 37 application to demonstrate the visual impact from Invershin Farm, standing stone 220m ENE of (SM1791).

Stakeholder	Summary of Feedback	Response by SSEN Transmission
	towards the existing Shin substation and the proposed OHL. This would enable a full assessment of the impact of the proposed OHL on the setting of the monument.'	
Non-Statutory		
Forestry and Land Scotland (FLS)	FLS pointed out that the alignment variants cross about 11 km of Scotland's National Forest and Land (NFL) managed by Forestry and Land Scotland (FLS) on behalf of Scottish Ministers. Seven of the alignment variations considered, and the Baseline Alignment, would have an impact on the NFL. FLS objects to any new OHL crossing the NFL as it is an unreasonable constraint on FLS's ability to sustainably manage the NFL. FLS stated that they do not want any additional burdens and their associated constraints on the land they manage, and they will object to and resist the imposition of such burdens and constraints unless it can be shown they are absolutely essential and unavoidable.	FLS's objection has been noted. FLS's interests have been considered throughout the route and alignment stage selection process and virtual meetings were held in March and May 2023 with representatives from FLS as discussed in Section 3.3. The proposed grid connection is required to connect the consented Achany Wind Farm Extension to the national grid, and is recognised as a National Development in NPF4, given that it is of a scale that would have otherwise been classified as 'Major' by the Town and Country Planning (Hierarchy of Developments) (Scotland) Regulations 2009. SSEN Transmission have corresponded further with FLS during the alignment selection process. FLS have since withdrawn their objection due to SSEN Transmission clarifying where the best alignment should be situated balancing cost, engineering and environmental constraints.
	FLS acknowledged that the analysis of the various alignment variants gives a fair assessment of the impacts of each alignment variant and how they compare. If Achany Wind Farm Extension OHL has to cross the NFL, then FLS' preferred alignment would be along the same corridor as the Rosehall Wind Farm export cable which is undergrounded across the NFL; it is noted that this is not one of the alignment variants being consulted on.	The alignment selection process has sought to identify alignment variants likely to have the least adverse impact on natural, built and cultural heritage features, on balance with other environmental considerations including people. The route of the Rosehall wind farm export cable shares, in part, a similar route to the Baseline Alignment and Alignment Variants 3 and 5. SSEN Transmission are contracted to develop the connection types stipulated by the Achany Extension wind farm developer, which is OHL. Should an OHL connection be deemed unfeasible on environmental, engineering or economic grounds, other options, including UGC connections, can be explored. In the case of this project, it is deemed that an UGC is necessary as the connection leaves the proposed Achany Wind Farm Extension substation given technical constraints presented by the proposed turbines of the wind farm. However, beyond the extent of the wind farm, an OHL is the preferred solution in light of technical constraints and to minimise disturbance to habitats and watercourses, as well as being the most cost-effective solution.
	Of the alignments being considered FLS objects to and will not accept the use of alignment variants numbered 7, 4 and the Baseline Alignment where it differs from alignment variants 5, 8, 9 and 11 due to the loss of productive forest and the additional burdens and increased costs associated with harvesting the adjacent crop.	This has been noted. Alignment variants 7 and 4 were not presented as preferred in the consultation document and this continues to be the case. Alignment Variant 8 is not preferred as it would pass into ancient woodland (Category 3).

Stakeholder	Summary of Feedback	Response by SSEN Transmission
		One of the main reasons for not selecting Alignment Variant 9 and Alignment Variant 11 as preferrable options was the presence of peat. Alignment Variant 9 and Alignment Variant 11 would pass through more Class 1 and 2 peat than Alignment Variant 5 and the Baseline Alignment. However, in order to demonstrate SSEN Transmission's commitment to finding consensus with FLS and to confirm the viability or otherwise of alignment variants, the peat probing that was conducted was done to provide information on neighbouring alignments where possible to better understand the nature of the peat and in turn the associated risks. Alignment Variant 5 which was presented as part of the preferred alignment goes through deeper peat than the Baseline Alignment does. It has since been considered by SSEN Transmission that although Alignment Variant 5 has other benefits, it would be more appropriate to take the Baseline Alignment forwards as part of the proposed alignment due to the presence of deep peat and priority peatland. This is confirmed within Section 6 of this report. Following the peat probing, SSEN Transmission have corresponded further with FLS. FLS have since withdrawn their objection due to SSEN Transmission clarifying where the best alignment should be situated balancing cost, engineering and environmental constraints.
	Of the alignment variants being consulted on FLS considers Alignment Variant 12, Alignment Variant 5 combined with Alignment Variants 8 and 9 or 11 to be the least burdensome to the management the NFL but objects to the installation of another OHL across the NFL.	This has been noted. With regards to Alignment Variant 12, this is not preferred given its very close proximity (approximately 110 m) to a residential property. Please see above comments in relation to Alignment Variant 5 combined with Alignment Variants 8 and 9 or 11.
	FLS queried the use of OHL rather than UGC, and queried if SSEN Transmission might be resistant to undergrounding due to familiarity with the overground technology rather than for sound technical reasons. If undergrounding a particular section of powerline is technically impossible FLS needs to be convinced of this.	SSEN Transmission are contracted to develop the connection types stipulated by the Achany Extension wind farm developer, which is OHL. Should an OHL connection be deemed unfeasible on environmental, engineering or economic grounds, other options, including UGC connections, can be explored. In the case of this project, it is deemed that an UGC is necessary as the connection leaves the proposed Achany Wind Farm Extension substation given technical constraints presented by the proposed turbines of Achany Wind Farm Extension. However, beyond the extent of the wind farm, an OHL is the preferred solution, in line with the connection agreement.
	In order to make the proposed OHL across the NFL acceptable to FLS and remove its objections, FLS suggested that the connection needs:	See above for comments in relation to UGC point. In relation to a package of remedial works to mitigate the impact on the NFL and the production of a biodiversity and environmental net gain, SSEN are committed to compensatory planting and BNG measures to help mitigate impacts across the entire length of the route taken forward.

Stakeholder	Summary of Feedback	Response by SSEN Transmission
	• To be buried through the afforested areas as a minimum, ideally on a parallel alignment to the undergrounded Rosehall Wind Farm export cable. • Agree a package of remedial works to mitigate the impact on the NFL and produce a biodiversity and environmental net gain for both the project and the surrounding forest.	In order to achieve these commitments, SSEN Transmission would welcome FLS' input into identifying potential initiatives which could take place within its land holding. SSEN Transmission will be quantifying biodiversity and woodland units lost as part of the project and would then seek further engagement with FLS. All of SSEN Transmission's BNG works need to be achieved through habitat creation to a value of 10% gain over the baseline biodiversity lost and, therefore, there is potential to undertake significant BNG works working with FLS if suitable initiatives can be identified.
NOROS (No Ring of Steel)	NOROS is a group representing local residents in relation to the continuing number of Windfarm developments and associated infrastructure around the areas of Rosehall, Altass and Linside. Members of the group visited the consultation event and wanted to pass on some of their concerns about the development.	This has been noted.
	It was outlined by NOROS that there was some anger that the route stage consultation event was held in Lairg, making it difficult for many to attend. NOROS noted that it was understood that this was due to construction vehicles needing to come through Lairg to access the site. It was felt by NOROS members though, that it would have been important to first inform residents that are going to be affected by the infrastructure on a daily basis, rather than communities affected by traffic for a few weeks.	This comment was noted at route selection stage for implementation at future consultation events. Rosehall was therefore selected as the location for the alignment selection stage consultation event held in June 2023.
	NOROS noted that SSEN Transmission stated that 2,500 invitations to this event were sent out, but as there are only 250 residents in the local area NOROS queried where else these could have been sent.	SSEN Transmission outlined in the April 2023 Route Stage Report on Consultation that a mail drop of a booklet and letter informing of the event was carried out to 1,393 households within the vicinity of the route options ahead of the route stage consultation. As stated in Section 3.3 of this Alignment Stage Report on Consultation, consultation events were advertised in the local press, SSEN Transmission's social media channels and the dedicated project website. A mail drop of a booklet and letter informing of the event was also carried out to 1,393 households ahead of the alignment stage consultation. Following the consultation event, SSEN Transmission have corresponded further with NOROS on this, and supplied the map used to carry out the maildrop for the event.
	NOROS suggested that although the Alignment Stage Consultation Document was detailed, the maps were of very poor quality, hard to read and very difficult to pick out details from, or to truly see what residents would be affected.	This has been noted. Regarding the maps in the booklet, it is challenging to show detailed maps at small scales. Figures 2a - 2d in the Alignment Stage Consultation Document were produced to show constraints at a closer scale. At the public consultation event, SSEN

Stakeholder	Summary of Feedback	Response by SSEN Transmission
		Transmission had detailed maps on display printed out to A0 to also try and address this issue. Maps can also be viewed on the project webpage.
	NOROS agreed that the approach taken to select the most optimal alignment had been adequately explained in relation to natural and cultural heritage sites. NOROS did not feel that the affect of the OHLs to local residents, especially those living in Durcha, the visual affect to those visiting the area or the affect on local wildlife has been fully taken into account. NOROS outlined that residents of Durcha currently have a wind farm behind their house, and are subject to noise and vibrations when the blades turn. With the recent approval of the Meall Buidhe windfarm, Durcha residents may now face this in front of their homes so an OHL also passing closely by would be additional infrastructure.	This has been noted. As well as consultation responses received on this topic, feedback feedback from residents that live at Durcha was received at the event. SSEN Transmission have subsequently assessed the viability of utilising Alignment Variant 3 as the preferred alignment in order to locate the OHL further away from those properties. It has since been considered by SSEN Transmission that although Alignment Variant 1 has other benefits, it would be more appropriate to take the Alignment Variant 3 forwards to EA stage due to the Durcha properties.
	NOROS outlined that the local economy is based on rural tourism with visitors coming to enjoy the peace and quiet and rural nature of the area, and that the threat of more infrastructure destroying the countryside is frightening.	The proposed grid connection is required to connect the consented Achany Wind Farm Extension to the national grid, and is therefore recognised as a National Development in NPF4. Consideration has been given to minimising potential impacts on landscape, visual and recreational receptors during the route and alignment selection stage of the project, and will be further assessed as the project progresses.
	NOROS suggested that OHLs present a risk to resident birds. NOROS outlined that it was brought to SSEN Transmission's attention near the project is an active Osprey nest. NOROS suggest that OHLs could pose a threat to breeding adults flight lines to nest sites, to young birds when they fledge, and to migrating birds when they return to the area.	The presence of sensitive bird species has been identified through desk-based and field surveys, the methodology of which has been agreed with NatureScot. The information collected from these studies has informed the route and alignment selection stages of the project, and potential impacts on birds, together with the identification of appropriate mitigation to minimise impacts, will continue as the project progresses.
	NOROS also outlined that there is an active badger sett in the wood close to the project.	Protected species surveys are being carried out to inform the alignment and any appropriate mitigation to minimise impacts on protected species, including badger. Species Protection Plans will be implemented during the construction phase.
	NOROS stated that being told that Ofgem want the cheapest technology solutions to avoid costs on peoples bills, is not good enough. NOROS stated that cheapest is not always the best option, and when people hear of the annual profits of companies such as SSEN Transmission and see their soaring energy bills it doesn't add up.	Although cost is an important topic area, the alignment selection process has sought to identify alignment variants likely to have the least adverse impact on natural, built and cultural heritage features, on balance with other environmental considerations including people. SSEN Transmission are also contracted to develop the connection types stipulated by the Achany Extension wind farm developer, which is OHL. Should an OHL connection be deemed unfeasible on environmental, engineering or economic grounds, other options, including UGC connections, can be explored. In the case of this project, it is deemed that an UGC is necessary as the connection leaves the proposed Achany Wind Farm Extension substation given technical

Stakeholder	Summary of Feedback	Response by SSEN Transmission
		constraints presented by the proposed turbines of Achany Wind Farm Extension. However, beyond the extent of the wind farm, an OHL is the preferred solution in line with the connection agreement.
	Although NOROS understand the need for the power to be transmitted from the Achany extension site, they disagree that the reasons for not undergrounding have been fully explained. NOROS outlined that residents feel that if the current Achany Wind Farm Grid Connection is UGC and has been working fine, there is no need for Achany Wind Farm Extension Grid Connection to be OHL. They outlined that the environmental damage of UGC, stated by SSEN Transmission staff is not evident for the Achany Wind Farm Grid Connection, so question why this newer line should be more damaging. NOROS note that the damage during construction will be evident but once the UGC is buried, that nature would reclaim the land as it has from the current UGCs. NOROS suggest that OHLs will be visually permanent, and access routes and tree clearance to protect the overhead lines will be ongoing and leave a scar on the natural area.	The existing Achany Wind Farm Grid Connection UGC is only capable of supplying 65 kV, while the proposed Achany Extension Wind Farm Grid Connection would require a 132 kV connection. There are several additional challenges associated with the use of UGC at this voltage that must be addressed in order to determine feasibility (see above comments). Due to the physical and performance characteristics of UGCs, lower voltage cables have a lot less constraints on their installation meaning that where a 65 kV cable has been installed it does not follow that the same location is suitable for larger higher rated cable installation such as a 132 kV UGC. As explained above, the decision to progress with an OHL for this project is driven by the contractual agreements between SSEN Transmission and the wind farm developer, together with consideration of environmental, technical and cost factors. It should be noted though that UGC can have a greater impact on sensitive habitats due to the requirement to create a 30 m wide construction corridor along it's length. As with OHL's, UGCs also require a wayleave to be created, which would require tree clearance in woodland or forested areas. Furthermore, joint bays, which are concrete lined, are required every 500–1,000 m to facilitate access to the UGC in the event of a fault or maintenance activities. A sealing end compound or structure is also required on an UGC to facilitate transition between UGC and OHL.
	NOROS requested that the alignment should avoid the residents of Durcha and Linsidemore.	This has been noted. As well as consultation responses received on this topic, feedback from residents that live at Durcha was received at the event. SSEN Transmission have subsequently assessed the viability of utilising Alignment Variant 3 as the preferred alignment in order to locate the OHL further away from those properties. It has since been considered by SSEN Transmission that although Alignment Variant 1 has other benefits, it would be more fitting to take the Alignment Variant 3 forwards to EA stage due to the Durcha properties. In the area of Linsidemore, the preferred alignment would not come within 500 m of properties.
Peter Graham & Associates (on	Peter Graham & Associates (on behalf of Brook Forestry) are in support of the connection being undergrounded along the road near Rosehall Wind Farm.	This has been noted. Please see above comments on undergrounding considerations.

Stakeholder	Summary of Feedback	Response by SSEN Transmission
behalf of Brook Forestry)	Peter Graham & Associates (on behalf of Brook Forestry) disagreed with the idea that the environmental impact of an OHL would cause the lower impact when compared to UGC. They note following the route of an existing road would cause minimal environmental damage even with the additional infrastructure required for UGCs.	This has been noted. Utilising Alignment Variant 3 as the preferred OHL alignment would follow the route of an existing road more so than the preferred alignment as presented in the alignment stage consultation document. In relation to UGC running alongside existing road, this would also mean running alongside existing UGCs. Although land has already been disturbed by the existing Rosehall Wind Farm UGC, consideration must be given to the interaction between it and any potential future UGC circuits. UGC circuits generate heat, and the performance/rating of a cable is impacted by the temperature that it can safely be operated at. The inclusion of additional UGC circuits in proximity results in an increase in the heating of the surrounding soil mass and could potentially negatively impact the existing Rosehall Wind Farm UGC circuit and the existing capacity for which it is designed. Furthermore, the heating effect of the existing Rosehall Wind Farm UGC on any potential future UGC circuits such as Achany Wind Farm Extension would result in the need of an easement width that well exceeds the width of previously disturbed ground. Issues of thermal interaction can be exacerbated in areas of deepening which are necessary to cross watercourses and other natural obstacles. As soil temperatures increase with depth, circuit spacing would have to increase further in these cases. An additional construction easement width of approximately 40 m over undisturbed ground would be envisaged to accommodate any new UGC circuit where it runs in proximity to the existing Rosehall Wind Farm UGC.
Rosehall Wind Farm	Rosehall Wind Farm outlined that they would require a minimum of 186 m clearance from the closest impacted turbine to the OHL. Rosehall Wind Farm had a number of additional technical and operational queries related to the project, their wind farm and their 33 kV underground HV cable.	This has been noted. The Achany Wind Farm Extension OHL would maintain a 3x rotor diameter distance from the closest turbine which is 186 m. All further technical and operational queries have been discussed in further detail between SSEN Transmission and Rosehall Wind Farm. SSEN Transmission will continue to liaise with Rosehall Wind Farm as the project progresses.
	Rosehall Wind Farm outlined that they have Habitat Management Plan (HMP) obligations within certain areas of their wind farm that cannot be disturbed.	This has been noted. SSEN Transmission have received a copy of Rosehall Wind Farm HMP and confirm that the preferred alignment does not interact with the Rosehall Wind Farm HMP.
RTS Forestry (Coille An Fheoir)	RTS Forestry are unclear if the OHL would cut through their conifer stand. Should this be the case then RTS forestry would ask that the alignment be moved south.	The preferred alignment as presented at consultation, was anticipated to cross approximately 100 m of RTS Forestry land. SSEN Transmission have continued to liaise with RTS Forestry in relation to this. Subsequently SSEN Transmission have altered the alignment of the Baseline Alignment by around 100 m to avoid RTS Forestry land completely.

5. COMMUNITY CONSULTATION RESPONSES

5.1 Public Exhibition Responses

Feedback received from the local community and general public in response to the public consultation events is presented below. As stated in **Section 3.3**, seven feedback forms were received by post or online after the consultation. Some of the key themes discussed during the events related to technology types including the use of OHL and UGC, visual concerns and the presence of protected species.

5.1.1 **Table 5.1** overleaf sets out the feedback received by the local community and general public following the consultation period (May and July 2023), including comments received during the consultation events. Responses by SSEN Transmission are also included, setting out the action to be taken where relevant.

Table 5.1: Public and Local Community Feedback by Topic

Theme	Feedback Comments	Response by SSEN Transmission
Undergrounding the connection	Several respondents suggested that undergrounding the connection would be the preferred and more appropriate technology, as there would be positive impacts in relation to various constraint topic areas including recreation, ecology, ornithology and landscape and visual. Some respondents suggested that SSEN Transmission's approach to select the most optimal alignment seems to have just been based on costs, not looking at effects on the area and those living there.	The alignment selection process has sought to identify alignment variants likely to have the least adverse impact on the environment, on balance with other technical and cost considerations. As detailed in the above responses in **Table 4.1**, there are a number of environmental, technical, and operational constraints associated with undergrounding at 132 kV. The ability to install underground cabling is highly dependent on suitable ground conditions and terrain and there can be significant and lasting environmental impacts and future land use constraints associated. Although UGCs are visually less intrusive, a significant land take is required for laying UGCs, and a corridor is required to be kept clear from any buildings or woodland to allow for access in the event of cable faults, as is the case of OHLs. Peat also poses a number of problems for UGC installations as described in responses in **Table 4.1**. SSEN Transmission are also contracted to develop the connection types stipulated by the Achany Extension wind farm developer, which is OHL. Should an OHL connection be deemed unfeasible on environmental, engineering or economic grounds, other options, including UGC connections, can be explored. In the case of this project, it is deemed that an UGC is necessary as the connection leaves the proposed Achany Wind Farm Extension substation given technical constraints presented by the proposed turbines of Achany Wind Farm Extension. However, beyond the extent of the wind farm, an OHL is the preferred solution in line with the connection agreement.
	Members of the public suggested that the reasoning behind favouring OHL over UGC for this project is not clear, particularly as the already existing Achany Wind Farm Grid Connection is UGC and there have been no notable or publicised issues.	The already existing Achany Wind Farm Grid Connection of UGC is only capable of carrying 65 kV. In contrast to this, the Achany Wind Farm Extension Grid Connection will need to be capable of carrying 132 kV. There are more challenges associated with the use of UGC at 132 kV voltage that must be addressed in order to determine feasibility (see above comments). Due to the physical and performance characteristics of UGCs, lower voltage cables have a lot less constraints on their installation meaning that where a 65 kV UGC has been installed it does not follow that the same location is suitable for larger higher rated cable installation such as a 132 kV UGC.

Theme	Feedback Comments	Response by SSEN Transmission
	One person queried why a "ploughing" technique could not be used as a method for installing UGC to reduce impacts.	The ploughing technique has not been proposed to be taken forwards for this project. Whilst ploughing shows some promise, the examples of previous installations do not present a complete picture and there are a significant number of challenges, including the below: • **Thermal Backfill:** cable systems require careful design of thermal backfill arrangements to avoid the risk of thermal runaway and ultimately failure in service. For the thermal backfill to function correctly, material qualities must be consistent throughout the cable circuit and whilst most parameters are checked at source, it needs to be ensured that what is installed in the trench meets the minimum cover dimensions in all areas around the cables/ducts and also achieves the correct densities. Neither of these things can be checked consistently or easily for ploughed installation as excavation and exposing the installed duct bank would be required in order to do so, negating the benefits of ploughing. • **Formation:** Closely related to the item above on thermal backfill, the accuracy of duct placement and trench formation directly impact thermal performance, along with induced voltage and impedances for the system, effective frictions for cable installation, and lastly safety of the asset. A ploughed installation does not allow for strapping of the duct bundle as traditionally carried out for open cut, bundled trefoil duct installation. Strapping ensures the arrangement of the ducting is uniform on installation and remains as such of the life of the cable system, even in the presence of small amounts of settlement which can be quite a common occurrence. • **Terrain:** Ploughing lends itself to terrain without significant obstacles (such as large watercourses, roadways etc.), peatland (restoration and depth of installation), boulders etc. It is not a practical installation methodology for many cable routes and there is some concern around long term stability of some terrain types such as peatland and the risk that ploughing might inadvertently lead to de-stabilisation of such terrain types on shallow slopes, resulting in soil creep or even significant displacement of peatland and landslides, something that is a known risk in Scotland. • **Land Drainage:** The installation of large duct banks by ploughing naturally leads to the upheaval and compression of surrounding indigenous soils, which could lead to performance impacts of natural land drainage.

Theme	Feedback Comments	Response by SSEN Transmission
Alternative connections	A person queried why Shin substation was selected rather than Muir Lairg substation and queried the rationale for 132 kV being used rather than a lower rating.	It has been assumed that by "Muir Lairg substation", the consultee meant the relatively new Dalchork substation. Muir Lairg substation is not a substation that exists. A feasibility assessment was carried out seeking to explore the options of connecting Achany Wind Farm Extension to the network both at Dalchork substation and at Shin substation. It was concluded that a connection to the electricity network at Shin substation was considered technically less challenging. Shin substation also has the capacity to take the connection without requiring extensive substation expansion. During the initial review, using the 132 kV rated line was recommended as the most efficient solution to meet the 105 MW connection requirement of Achany Wind Farm Extension.
	A person suggested linking Achany Wind Farm Extension to the existing Achany Windfarm then joining that connection to Muir Lairg substation.	It has been assumed that by "Muir Lairg substation", the consultee meant the relatively new Dalchork substation. Muir Lairg substation is not a substation that exists. The proposed Achany Extension will have an output of 132 kV and therefore requires a new method of connection as there is not enough capacity in the existing UGC.
	A person proposed the use of an existing access road which has a 33 kV cable running from Rosehall Wind Farm. They suggested it could link the wind farm extension to either the existing Rosehall Wind Farm or to avoid Rosehall Wind Farm and link to a forest road and windfarm road and follow a route to the southeast of the preferred alignment to Shin substation.	The existing Rosehall Wind Farm UGC is only capable of supplying 33 kV. The proposed Achany Extension will have an output of 132 kV and therefore requires a new method of connection as there is not enough capacity in the existing UGC. In relation to an UGC running alongside an existing road, this would also mean running alongside existing UGCs. Although land has already been disturbed by the existing Rosehall Wind Farm UGC, consideration must be given to the interaction between it and any potential future UGC circuits. UGC circuits generate heat, and the performance/rating of a cable is impacted by the temperature that it can safely be operated at. The inclusion of additional UGC circuits in proximity results in an increase in the heating of the surrounding soil mass and would therefore negatively impact the existing Rosehall Wind Farm UGC circuit and the existing capacity for which it is designed. Furthermore, the heating effect of the existing Rosehall Wind Farm UGC on any potential future UGC circuits such as Achany Wind Farm Extension would result in the need of an easement width that well exceeds the width of previously disturbed ground. Issues of thermal interaction can be exacerbated in areas of deepening which are necessary to cross watercourses and other natural obstacles. As soil temperatures increase

Theme	Feedback Comments	Response by SSEN Transmission
		with depth, circuit spacing would have to increase further in these cases. An additional construction easement width of approximately 40 m over undisturbed ground would be envisaged to accommodate any new UGC circuit where it runs in proximity to the existing Rosehall Wind Farm UGC. Subsequent to the consultation, it been considered by SSEN Transmission that although Alignment Variant 1 has other benefits, it would be more appropriate to take the Alignment Variant 3 forwards due to the Durcha properties. Utilising Alignment Variant 3 would also follow the route of an existing forest road more so than the preferred alignment as presented in the alignment stage consultation document.
The local population	Respondents suggested that the local population does not want the additional burden of more windfarms and associated infrastructure. It was outlined that there is a disproportionate amount in the area with much energy exported elsewhere.	The proposed grid connection is required to connect the consented Achany Wind Farm Extension to the national grid.
	Several respondents suggested that the connection should be kept away from properties at Durcha as they are becoming surrounded by infrastructure.	This has been noted. As well as consultation responses received on this topic, feedback from residents that live at Durcha was received at the event. SSEN Transmission have subsequently assessed the viability of utilising Alignment Variant 3 as the preferred alignment in order to locate the OHL further away from those properties. It has since been considered by SSEN Transmission that although Alignment Variant 1 has other benefits, it would be more appropriate to take the Alignment Variant 3 forwards due to the Durcha properties.
	One person commented that Alignment Variant 2 was not their preference.	Alignment Variant 2 is not a part of the preferred alignment and will not be taken forwards.
Ornithology & Protected Species	Some respondents commented that active osprey nests and badger setts near to the project should be brought to the attention of the project team. One respondent suggested that for raptors and other animals the infrastructure is compromising the long-term goals of attracting recolonization or introduction of species.	Protected species surveys are being carried out to inform the alignment and any appropriate mitigation to minimise impacts on protected species, including badger. Species Protection Plans will be implemented during the construction phase. Osprey nests in the vicinity of the project are known and additional advice on the scope of bird survey work was provided by NatureScot via e-mail on 22 November 2022 and on 23 June 2023.

Theme	Feedback Comments	Response by SSEN Transmission
The consultation process	Some members of the public suggested that the images in the Consultation Document were very poor with little detail and that it was hard to clearly see the connection and who it will affect.	This has been noted. Regarding the maps in the booklet, it is challenging to show detailed maps at small scales. Figures 2a - 2d in the Alignment Stage Consultation Document were produced to show constraints at a closer scale. At the public consultation event, SSEN Transmission had detailed maps on display printed out to A0 to also try and reduce this issue. Maps can also be viewed on the project webpage.
	Some respondents outlined that the first consultation was not near the relevant area, and that only 2 weeks' notice was given for the event. One respondent noted that the consultation booklet and public event banners, were only available 48 hours before the event and could only be accessed if someone had email.	The comment regarding where the first consultation was held was noted at route selection stage for implementation at future consultation events. Rosehall was therefore selected as the location for the alignment selection stage consultation event held in June 2023. The consultation booklet and public event banners were prepared for the public consultation. All exhibition materials were made available prior to the event on the project website and will remain there whilst the project is in development stages. Consultation events were advertised in the local press, SSEN Transmission's social media channels and the dedicated project website. A mail drop of a booklet and letter informing of the event was also carried out to 1393 of housholds ahead of the consultation.
	One person requested that the specific relationships between the various companies within the SSE group should be fully explained.	The relationship between SSE and SSEN Transmission was shown on an organogram on the information boards available at the consultation event, as well as on the project website.
	A person requested a copy of the route stage Report on Consultation (April 2023).	The April 2023 route stage Report on Consultation is available on the project website: https://www.ssen-transmission.co.uk/projects/project-map/achany-wind-farm-extension-connection
	One person proposed that there is a Stakeholder Board established to contribute more to the planning and proposals and widen the considerations for the project process.	SSEN Transmission will continue to liaise closely with local residents, communities and Community Councils as the project progresses.

Theme	Feedback Comments	Response by SSEN Transmission
Other	One person supplied some additional documents as a response to the consultation. These were "Brief Presentation for Policy Development, Route Selection and Technical Solutions as Part of the Consultation Process: PART 1 – Response to - Public Consultation Event" and "Brief Presentation for Policy Development, Route Selection: Reference - Alignment Stage Consultation Document; Achany Wind Farm Extension Grid Connection June 2023 as Part of the Consultation Process: PART 2 – Response to - Public Consultation Event: Enhanced Alignment Options."	These documents have been received by SSEN Transmission and will be discussed in further detail with the stakeholder where points are applicable to this grid connection project.

6. PROPOSED ALIGNMENT

6.1 Overview

6.1.1 SSEN Transmission has reviewed and considered the responses provided by stakeholders following the identification of a preferred alignment, as set out within the Achany Extension Grid Connection Consultation Document. Responses to each of the points raised by stakeholders through the consultation process are included in Sections 4 and 5 of this report.

6.1.2 The consultation process for the project raised a number of comments seeking further clarification and justification for the use of OHL rather than UGC for parts of the connection. Comments also sought clarification or set requirements for further assessment, particularly in relation to landscape and visual, peat, protected species and ornithological constraints. These points have been addressed in **Table 4.1** and **Table 5.1**.

6.1.3 Other topics of importance that arose from the consultation process included:

- deep peat and priority peatland;
- proximity to dwellings, in particular the properties at Durcha; and
- landowner concerns.

6.1.4 To address these issues, the preferred alignment as presented in the Alignment Consultation Document has been subject to revision. As described in **Table 4.1** and **Table 5.1**, since the alignment stage consultation took place, peat probing has been carried out to establish the depth of peat along the preferred alignment and some of the alignment variants. Alignment Variant 5 which was presented as part of the preferred alignment goes through deeper peat than the Baseline Alignment does. It has since been considered by SSEN Transmission that although Alignment Variant 5 has other benefits, it would be more appropriate to take the Baseline Alignment forwards due to the presence of deep peat and priority peatland along Alignment Variant 5.

6.1.5 SSEN Transmission have also assessed the viability of utilising Alignment Variant 3 instead of Alignment Variant 1 as the preferred alignment in order to locate the OHL further away from the properties at Durcha. It has since been considered by SSEN Transmission that although Alignment Variant 1 has other benefits, it would be more appropriate to take the Alignment Variant 3 forwards due to the properties at Durcha. Utilising Alignment Variant 3 would also follow the route of an existing forestry road to a greater extent than other alignments.

6.1.6 The preferred alignment as presented at consultation, was anticipated to cross approximately 100 m of RTS Forestry land. SSEN Transmission have continued to liaise with RTS Forestry in relation to this. Subsequently SSEN Transmission have altered the alignment of the Baseline Alignment by approximately 100 m to the north of the A839 northeast of Netherton to avoid RTS Forestry land.

6.1.7 Following the peat probing, SSEN Transmission have also corresponded further with FLS. FLS have since withdrawn their objection due to SSEN Transmission clarifying where the best alignment should be situated balancing cost, engineering and environmental constraints.

6.1.8 Following these revisions, a proposed alignment has been arrived at that accounts for all environmental, engineering, cost and stakeholder considerations. This proposed alignment is the **Baseline Alignment (with some minor changes) in combination with Alignment Variant 3**, and it can be seen on **Figure 3.** The Proposed Alignment in the context of the preferred alignment as presented at alignment stage consultation can be seen on **Figure 4**.

7. CONCLUSIONS AND NEXT STEPS

7.1 Conclusions

7.1.1 This Report on Consultation documents the consultation process which has been undertaken for the project between May and July 2023. The programme of consultation was designed to engage with stakeholders including statutory and non-statutory consultees, local communities, landowners and residents in order to invite feedback on the rationale for and approach to, the selection of the preferred alignment option, prior to confirmation of the proposes alignment.

7.1.2 SSEN Transmission has concluded that the preferred alignment identified in the Alignment Consultation Document which was the Baseline Alignment in combination with Alignment Variant 1 and Alignment Variant 5, should be subject to revision due to comments received in relation to peat, proximity to dwellings and landowner concerns. As such, further work and consultation with interested parties has been undertaken.

7.1.3 As stated in Section 6, the revisions include:

- the use of Alignment Variant 3 over Alignment Variant 1 around Durcha due to proximity to dwellings;
- the use of the Baseline Alignment over Alignment Variant ploug5 to the northeast of Linsidemore due to peat; and
- the alteration of the alignment of the Baseline Alignment by approximately 100 m to the north of the A839 northeast of Netherton to avoid RTS Forestry land completely.

7.1.4 It should also be noted that the Baseline Alignment has been altered slightly upon final approach to Shin substation due to engineering feasibility constraints.

7.1.5 This proposed alignment is therefore the **Baseline Alignment (with some minor changes) in combination with Alignment Variant 3**, and it can be seen on **Figure 3.** The Proposed Alignment in the context of the preferred alignment as presented at alignment stage consultation can be seen on **Figure 4**.

7.2 Next Steps

7.2.1 The proposed alignment will be taken into Stage 4 (EA and consenting). Should further site and desk-based analysis at the EA and Consenting stage identify a particular constraint, a further review of the proposed alignment may be required.

7.2.2 All comments and considerations to date, as well as those resulting from any further meetings and liaison with stakeholders will be taken forward into the EA and consenting stage, through which assessments will be carried out for all relevant environmental aspects. This process will remain inclusive, seeking further consultation where appropriate.

7.2.3 In June 2023, a screening request[15] for the project acted as a formal request for Scottish Ministers to adopt a Screening Opinion under the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (the EIA Regulations) to determine whether the Achany Wind Farm Extension Grid Connection Project, seeking Section 37 and deemed planning consent was, or was not, EIA Development in the context of the EIA Regulations. The report also set out the preliminary proposed scope of environmental assessment work to inform the evolving design and support a future application.

7.2.4 On 21st August 2023, Energy Consents Unit (ECU) determined that the project does not constitute EIA development and any forthcoming application for consent (under section 37 of the Electricity Act 1989) does not require to be accompanied by a full Environmental Impact Assessment (EIA) report. Therefore, the project will progress through to the EA (Environmental Appraisal) and Consenting Stage. A Section 37 application is anticipated to be submitted in the second half of 2024.

[15] SSEN Transmission (2023), *Achany Wind Farm Extension Grid Connection Works: Electricity Act (Environmental Impact Assessment) (Scotland) Regulations 2017 Screening Request*