

Stornoway Wind Farm Connection

Public Information Event

20 March 2025



ssen-transmission.co.uk/projects/project-map/stornoway-wind-farm-connection/

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The Public Information Event will be taking place on:

Thursday 20 March, 3–7pm
Cabarfeidh Hotel, Stornoway, HS1 2EU



Powering change together



The time has come to further enhance Scotland’s energy infrastructure, providing power for future generations as we move towards net zero.

The shift to a cleaner, more sustainable future is about more than climate change. It’s about ensuring future generations have the same opportunities to thrive as we have all had.

Countries around the world are investing in their energy infrastructure to support the demands of modern economies and meet net zero targets. The UK is leading the way in building a modern, sustainable energy system for the future.

We all have a part to play

When it comes to net zero, we have to be in it together. The UK and Scottish governments have ambitious net zero targets, and we’re playing our part in meeting them.

We work closely with the National Energy System Operator (NESO) (previously National Grid Electricity System Operator) to connect vast renewable energy resources—harnessed by solar, wind, hydro and marine generation—to areas of demand across the country. Scotland is playing a big role in meeting this demand, exporting two thirds of power generated in our network.

But there’s more to be done. By 2050, the north of Scotland is predicted to contribute over 50GW of low carbon energy to help deliver net zero. Today, our region has around 9GW of renewable generation connected to the network.

At SSEN Transmission, it is our role to build the energy system of the future.

We’re investing over £20 billion into our region’s energy infrastructure this decade, with the potential for this to increase to over £30 billion. This investment will deliver a network capable of meeting 20% of the UK’s Clean Power 2030 target and supporting up to 37,000 jobs, 17,500 of which will be here in Scotland.



Scan the QR code with your smartphone to find out more about how these policies have been assessed and determined.

Who we are

We’re responsible for maintaining and investing in the electricity transmission network in the north of Scotland. We’re part of SSE plc, one of the world’s leading energy companies with a rich heritage in Scotland that dates back more than 80 years. We are also closely regulated by the GB energy regulator Ofgem, who determines how much revenue we are allowed to earn for constructing, maintaining and renovating our transmission network.

What we do

We manage the electricity network across our region which covers a quarter of the UK’s land mass, crossing some of the country’s most challenging terrain. We connect renewable energy sources to our network in the north of Scotland and then transport it to where it needs to be. From underground/subsea cables and overhead lines to electricity substations, our network keeps your lights on all year round.

Working with you

We understand that the work we do can have an impact on communities. So we’re committed to minimising our impacts and maximising all the benefits that our developments can bring to your area. We’re regularly assessed by global sustainability consultancy AccountAbility for how we engage with communities. That means we provide all the information you need to know about our plans and how they will impact communities like yours. The way we consult is also a two-way street. We want to hear people’s views, concerns, or ideas and harness local knowledge so that our work benefits their communities: today and long into the future. You can share your views with us at: ssen-transmission.co.uk/talk-to-us/contact-us/

The Pathway to 2030

Building the energy system of the future will require delivery of significant infrastructure over the next few years. In partnership with the UK and Scottish governments, we're committed to meeting our obligation of connecting new, renewable energy to where it's needed by 2030.

Achieving Net Zero

By 2030, both the UK and Scottish governments are targeting a big expansion in offshore wind generation of 50GW and 11GW respectively. The Scottish Government has also set ambitious targets for an additional 12GW of onshore wind by 2030.

Across Great Britain, including the north of Scotland, there needs to be a significant increase in the capacity of the onshore electricity transmission infrastructure to deliver these 2030 targets and a pathway to net zero.

Securing our energy future

And it's not just about net zero. It's also about building a homegrown energy system, so that geopolitical turmoil around the world doesn't severely impact the UK and push up energy prices.

The UK Government's British Energy Security Strategy further underlines the need for this infrastructure, setting out plans to accelerate homegrown power for greater energy independence. The strategy aims to reduce the UK's dependence on and price exposure to global gas wholesale markets through the deployment of homegrown low carbon electricity generation supported by robust electricity network infrastructure.

Meeting our 2030 targets

In July 2022, National Grid, the Electricity System Operator (ESO), published the Pathway to 2030 Holistic Network Design (HND). This set out the blueprint for the onshore and offshore transmission infrastructure that's required to support the forecasted growth in the UK's renewable electricity. It's an ambitious plan that will help the UK achieve net zero.

What does this mean for you?

The Stornoway Windfarm Connection SSEN Transmission Project aims to connect 180MW of onshore renewable energy from Stornoway Windfarm, located approximately 3.5 km west of Stornoway and 1.5 km north west of the Stornoway Grid Supply Point (GSP), to the wider GB transmission system. The connection involves the installation of a single 132kV circuit from Stornoway Wind Farm Substation to the new Lewis Hub.

The Lewis Hub is being developed as part of a separate project which is required to connect onshore and offshore wind in and around the Western Isles, adding capacity for new connections and reducing the island's reliance on diesel-powered electricity generation.

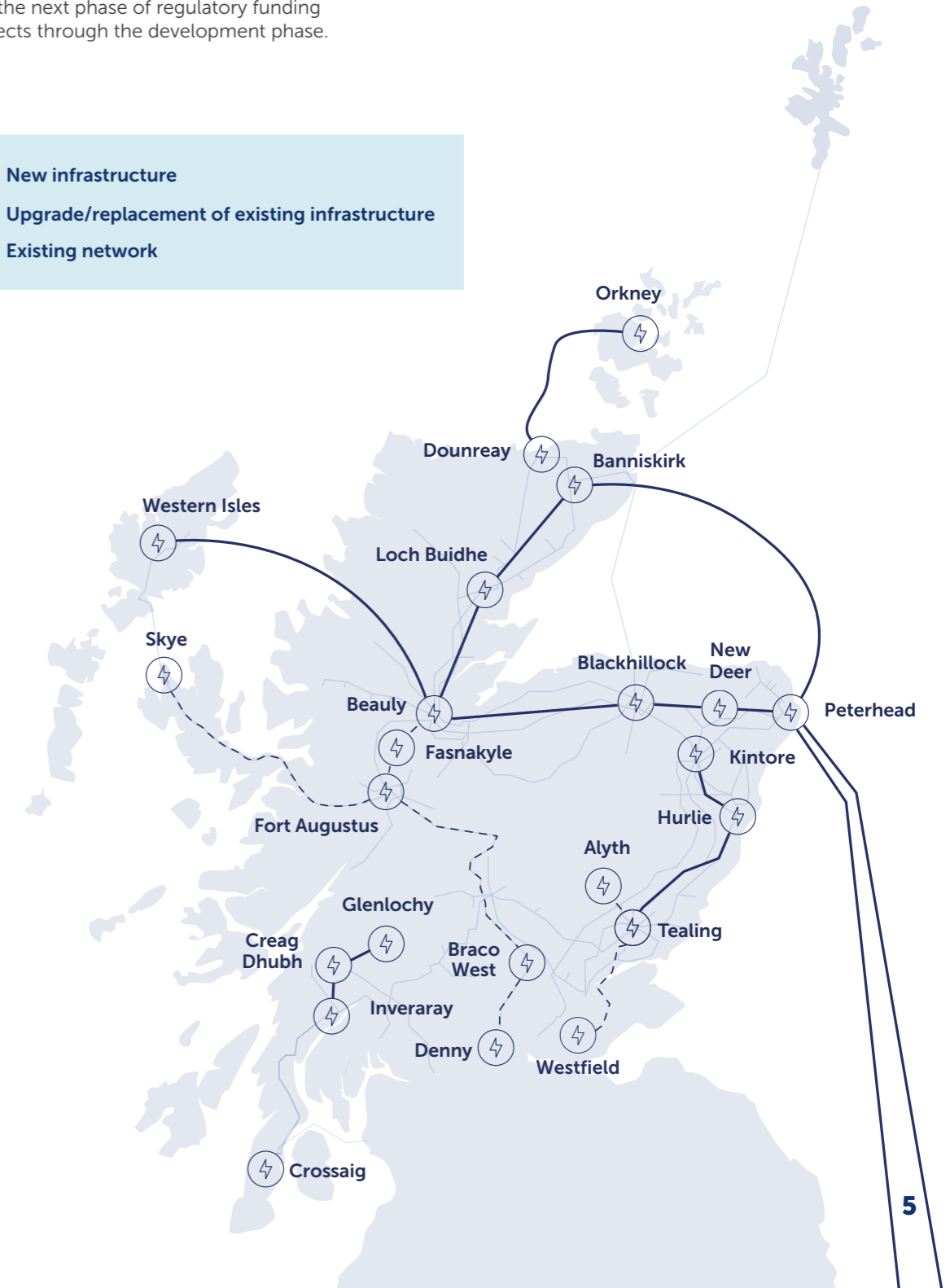
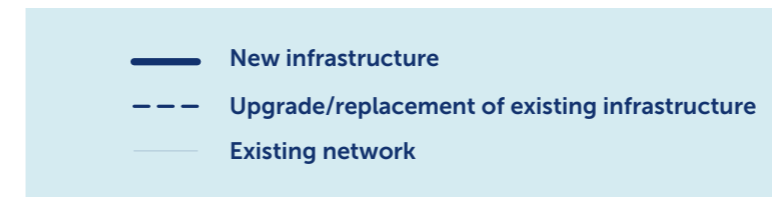


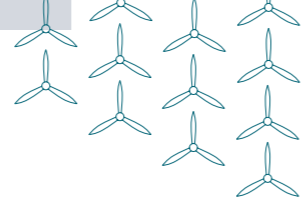
Future network investment requirements

To deliver energy security and net zero, further additional investment in new low carbon electricity generation and the enabling electricity transmission network infrastructure will be required across Great Britain, including the north of Scotland.

These additional investments will soon be subject to extensive public consultation and engagement to help inform their development, with early consultation and engagement expected to take place during 2025.

In March 2024, NESO published its 'Beyond 2030' report, which confirmed the need for several new, replacement and upgraded transmission infrastructure projects in the north of Scotland. In December 2024, Ofgem approved the next phase of regulatory funding to take these projects through the development phase.





Project need and overview

As the transmission license holder in the north of Scotland, we have a duty under Section 9 of the Electricity Act 1989 to facilitate competition in the generation and supply of electricity. We have obligations to offer non-discriminatory terms for connection to the transmission system, both for new generation and for new sources of electricity demand.

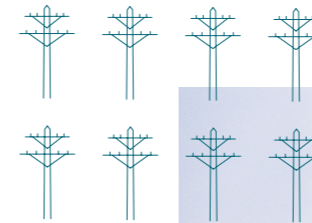
As explained above, we are required to connect the Stornoway Wind Farm to the transmission network. To facilitate this, we propose to construct a new 132kV overhead line on the connection route taken forward. We plan to underground a section of this connection where it reaches the Lewis Hub.

Under our Network Operators License, this connection should be efficient, coordinated and economic, whilst having the least possible impact on the environment.

The proposal involves the installation of a single circuit 132kV Trident wood pole overhead line using an "H" pole arrangement. This new overhead line will span approximately 1.6km between the proposed Stornoway Wind Farm Substation and a new cable sealing end structure, located approximately 400m southwest of the Stornoway Grid Supply Point (GSP) Substation. From the cable sealing end structure, the connection will transition to underground cabling, extending to the proposed Lewis Hub on the Arnish Moor.

The average height of the trident poles is between 10-18m with an average span of between 100-140m.

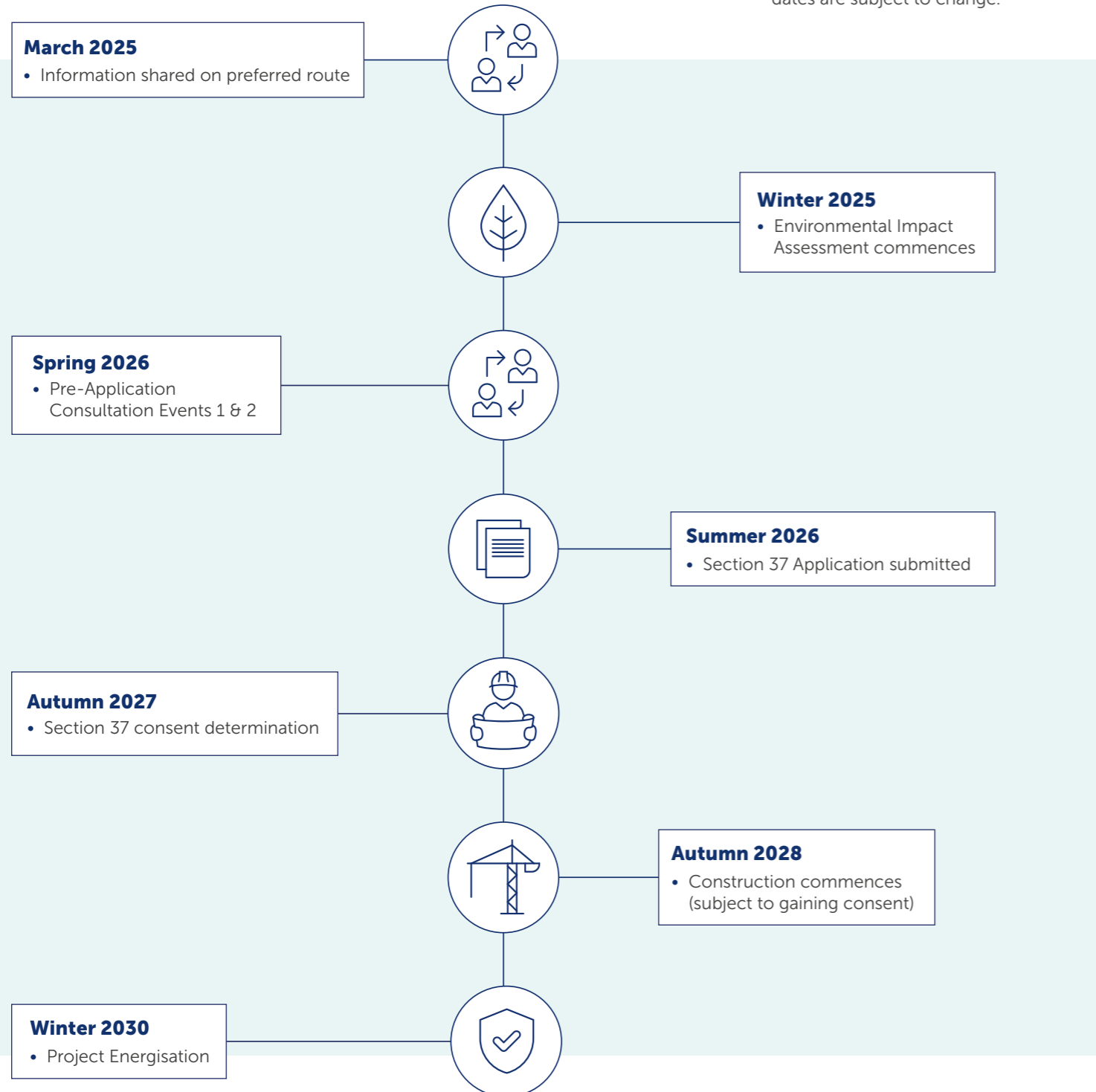
Traffic management may be required during construction and consultation will be undertaken on this in due course.



Project timeline

The figure below identifies key milestones for consenting and construction programmes:

*dates are subject to change.



Meeting our obligations

Our Transmission Operators license requires us to provide best value for customers and GB consumers.

As a natural monopoly, SSEN Transmission are closely regulated by the GB energy regulator Office of Gas and Electricity Markets (Ofgem), who determine how much revenue we are allowed to earn for constructing, maintaining and renovating our transmission network.

These costs are shared between all those using the transmission system, including generation developers and electricity consumers. We therefore work to strict price controls which means the following environmental, engineering and economic considerations form a key part of our routeing process.

Environmental assessments

Desk-based assessments using available mapping and GIS (Geographic Information Systems) data, together with initial site walkovers by specialists, have been undertaken to gather baseline information. This work has been undertaken during 2024 and has been crucial in identifying and understanding the key environmental constraints and sensitivities within the connection Corridor.

Landscape and visual amenity, sensitive habitats, protected ecology, hydrology, hydrogeology, recreation and cultural heritage have all been considered in this process. A programme of ornithological surveys has also been undertaken since 2023, to establish a baseline of information on key bird species that has directly informed the routeing process. Following confirmation of the preferred route and alignment, further detailed studies and assessment work will be undertaken to support the consenting process.

Consenting

Before a project progresses to consent application stage (under Section 37 of the Electricity Act 1989), a Screening Opinion is requested from the Scottish Ministers (through the Energy Consents Unit) to clarify whether the project falls within the thresholds of The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017. If the project meets or exceeds certain criteria, then it is deemed to be an EIA Development and any application for consent must be accompanied by a formal EIA Report. If it is not EIA Development, SSEN Transmission will provide equivalent environmental information through a voluntary Environmental Appraisal (EA) Report.

Engineering and economic considerations

In addition to the suite of environmental assessments undertaken, the following engineering and economic considerations form a key part of our routeing process:

- Construction costs and buildability (largely affected by ground conditions, such as peat/rock/flooding/contaminated land, etc).
- Operations and maintenance requirements.
- Outage requirements and network constraints.
- Vicinity to other electrical OHL and underground structures.
- Vicinity to any other utility, overhead or underground.
- Proximity to wind turbines and wind farm infrastructure.
- Communications masts and infrastructure.
- Urban development.
- Habitats and biodiversity.
- Technology costs and design parameters.
- Site accessibility.
- Route length.



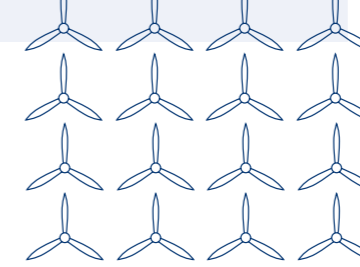
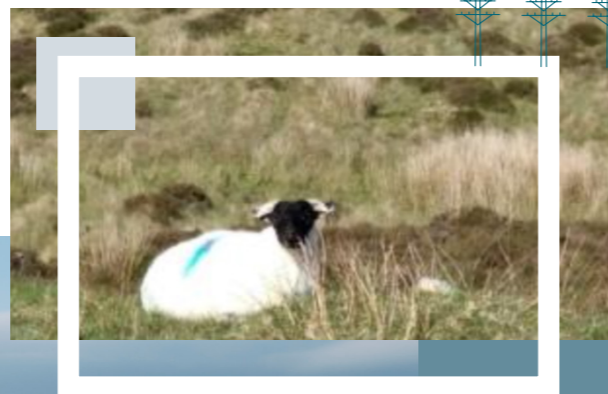
Our overhead line routeing and design process

SSEN Transmission has developed and implemented formal Guidance for the selection of routes and alignments for its new Overhead Lines (OHL).

The main aim of the Guidance is to provide a consistent approach to the selection of new OHL alignments and is underpinned by our statutory obligations to:

'Develop and maintain an efficient, coordinated and economical electricity transmission system in its licensed area' and in so doing, to 'have regard to the desirability of preserving the natural beauty, of conserving flora, fauna and geological and physiographical features of special interest and protecting sites, buildings and objects of architectural, historic or archaeological interest; and do what we 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'.

These duties capture the principal objective of the routeing process which is to balance technical and cost considerations with environmental considerations, to select a proposed alignment which is economically viable, technically feasible, minimises impacts on important resources or features of the environment and reduces disturbance to those living in it, working in it, visiting it or using it for recreational purposes.



Key stages

For new OHL projects, the process follows four principal stages, each iterative and increasing in detail and resolution, bringing cost, technical and environmental considerations together in a way which seeks the best balance. This staged process leads to the identification of a proposed overhead line alignment which is capable of being granted consent by the Scottish Government under Section 37 of the Electricity Act 1989. The key stages are:



Stage.1: Strategic options assessment/routeing strategy

The starting point in all OHL projects is to establish the need for the project and to select the preferred strategic option to deliver it. This process will be triggered by the preparation of a number of internal assessments and documents which identify the technology to be used.

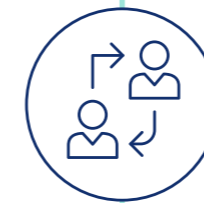
The Routeing Strategy determines which of the following stages are required.



Stage.2: Corridor selection

Corridor Selection seeks to identify possible corridors which are as short as practicable, which are not constrained by altitude or topography and which would avoid, where possible, any interaction with man-made infrastructure and features of environmental sensitivity.

Corridors may be 1km wide or may extend over many kilometres in width, depending on the scale and length of the project. For this project, and for wind farms in general, the Corridor stage is omitted as the location of the wind farm and point of connection on the network naturally define a Corridor of a few kilometres in width. Routing a new OHL any further afield than this would be too expensive and add unnecessary infrastructure to the landscape.



Stage.3: Route selection

Route Selection seeks to find a route within the corridor which avoids where possible physical, environmental and amenity constraints, is likely to be acceptable to stakeholders, and is economically viable, taking into account factors such as altitude, slope, ground conditions and access.

The dimensions of a route will depend on the context provided by the corridor.

A route may be several kilometres in length and may range from 500m to 1km in width, depending on the scale of the project, the nature and extent of constraints and the character of the area in question.

A number of route options are usually identified and assessed, leading to a preferred route being selected.



Stage.4: Alignment selection

Alignment Selection seeks to identify an alignment within the proposed route and to define the access strategy which will be adopted in terms of, for example, the nature and extent of temporary and/or permanent access tracks and possible road improvements.

The alignment will be defined by, amongst other things, the location of terminal and angle support structures for OHLs and sealing end compounds for UGCs. It will be influenced by local constraints, such as individual properties, their aspect, and amenity; ground suitability; habitats; and cultural heritage features and setting.

There may be more than one distinct alignment option through the preferred route. It is more likely however that variants to sections of an alignment may arise where there are different ways to avoid a constraint.

Routeing stage – RAG Rating

SSEN Transmission identified three route options based on initial desk-based review and site visits within the Area of Search.

Table 1 displays the environmental and engineering appraisal Red/Amber/Green (RAG) ratings for the route options considered. The RAG appraisal followed methodologies set out in SSEN Transmission guidance.

Table 1: Stornoway Wind Farm Connection – RAG Ratings

	Category	Sub-topic	Route Options		
			A	B	C
Engineering	Infrastructure crossings	Major Crossings	M	M	M
		Road Crossings	L	M	L
	Environmental Conditions	Elevation	L	L	L
		Contaminated Land	L	M	L
		Flooding	M	M	M
	Ground Conditions	Terrain	L	L	L
		Peat	H	H	H
	Construction/Maintenance	Access	M	M	M
		Angle Supports	L	L	L
	Proximity	Clearance distance	L	L	L
Windfarms		M	M	M	
Communication masts		L	L	M	
Urban environments		M	M	M	
Metallic pipelines		M	M	M	
Environmental	Natural Heritage	Designation	L	L	L
		Protected Species	L	L	L
		Habitats	H	H	H
		Ornithology	H	M	H
		Hydrology	M	M	M
	Cultural Heritage	Geology	H	H	H
		Designation	L	L	L
	People	Cultural Heritage Assets	M	M	M
		Proximity to dwellings	M	M	L
	Landscape and Visual	Designations	L	L	L
Landscape Character		L	L	L	
Visual		L	L	L	
Land Use	Agriculture	L	L	L	
	Proposed Infrastructure	L	L	L	
	Woodland/Forestry	L	L	L	
	Recreation	L	L	L	
Planning	Policy	M	M	M	
	Proposals	M	M	M	

Routeing stage - key environmental constraints

When assessing potential OHL routeing, consideration is given to minimising potential impacts on the environment they traverse. Considerations include all habitats, including peatland vegetation, hydrology, ancient woodland, and bird and insect species. Constraints affecting the proposed overhead line (OHL) routes (shown on Figure 1) between the Stornoway Wind Farm Substation and the new cable sealing end structure at the GSP, located adjacent to the A859, include the requirement to cross a watercourse near the Stornoway Wind Farm Substation and further south at the River Creed. Additionally, the routes cross peatland, where the terrain across all potential alignments is predominantly flat to gently undulating.

Careful consideration has been given to minimise environmental impacts, ensure compliance with regulatory requirements, and maintain the technical feasibility of the route. Mitigation measures will be developed to address challenges associated with peatland conditions and watercourse crossings, ensuring the delivery of a safe, sustainable, and reliable connection.

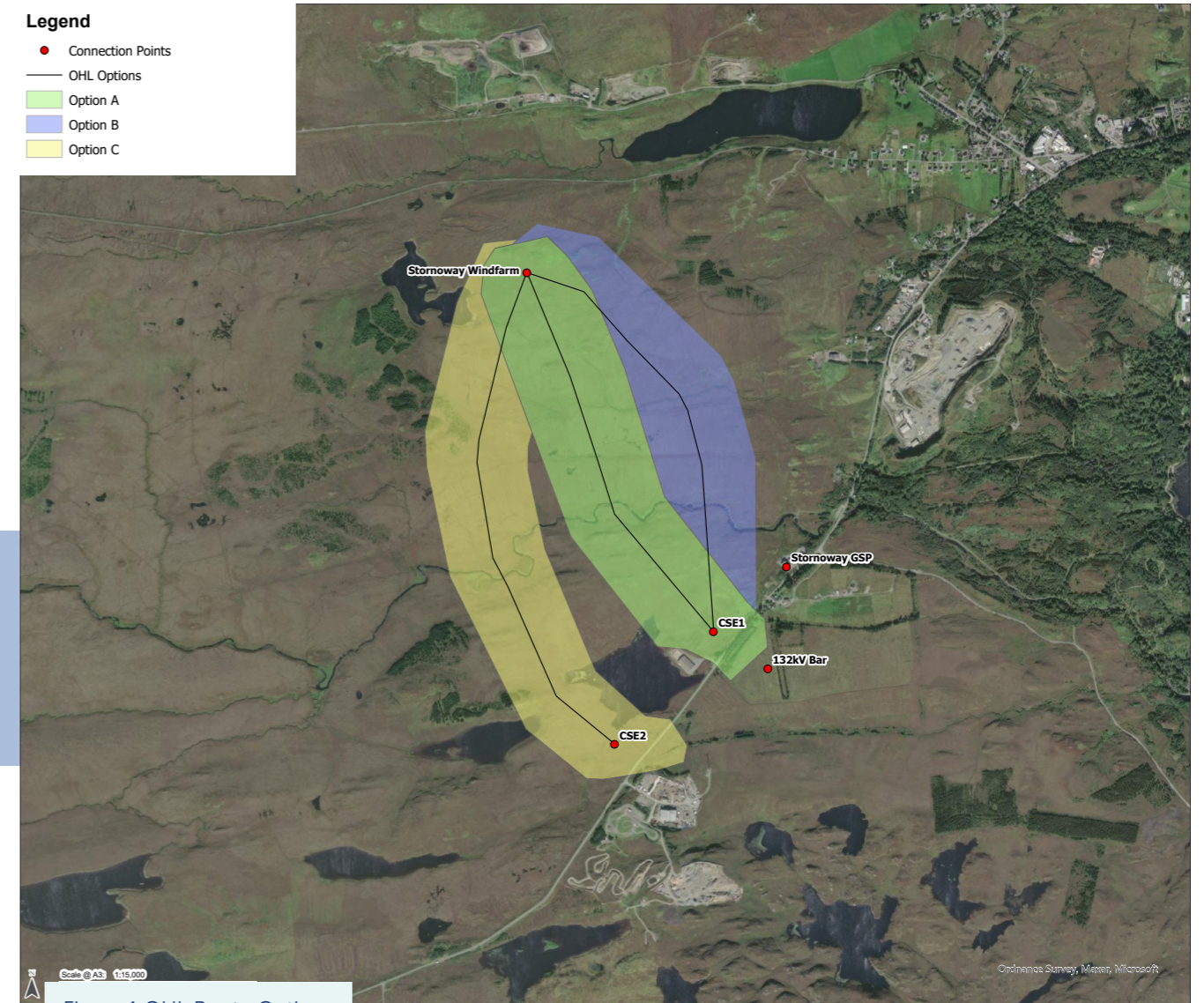
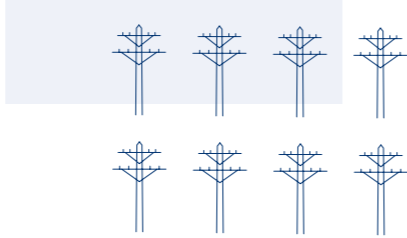


Figure.1 OHL Route Options



Routeing stage - outcome

Stornoway Wind Farm Connection – Preferred route

Three route options were identified in the Routeing stage. Due to the short connection distance, all 3 route options were similar in terms of engineering and environmental considerations. However, the routeing assessment concluded that Route Option A is preferred, which SSEN Transmission believes offers the best balance of technical and environmental impact considerations identified through initial assessment.

Route Option A provided the shortest connection, minimising impacts to sensitive habitats such as priority peatland. Route Option A will be progressed to the Alignment Stage, where careful placement of poles and underground cable corridor will be undertaken, particularly in relation to targeting the avoidance of environmental values, such as ornithology.

The Alignment Stage will also require the application of further mitigations, considering both construction and operational stages, to avoid and reduce potential effects on the environmental receptors.

Legend

- Connection Points
- OHL Option A
- Option A

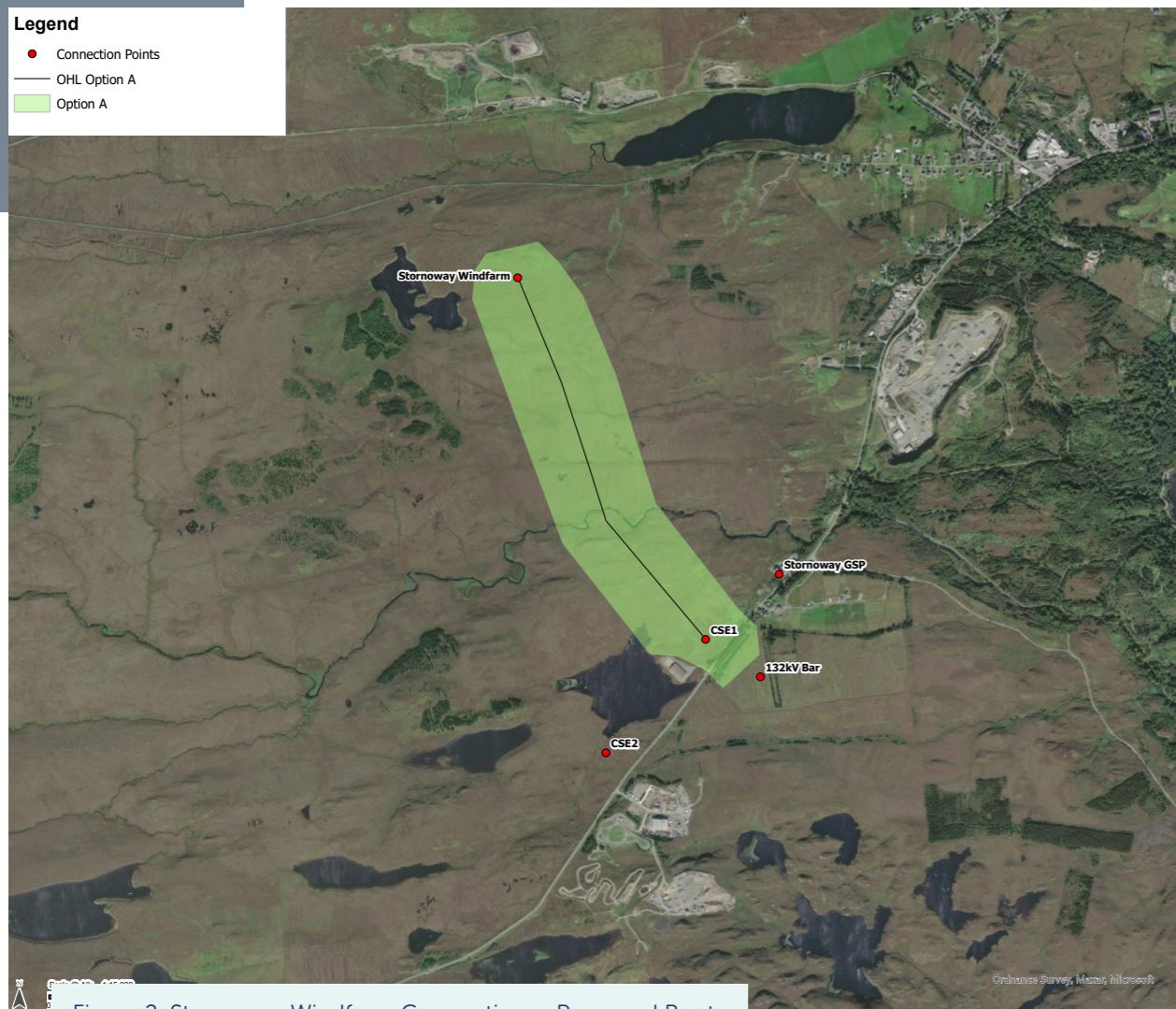


Figure 2. Stornoway Windfarm Connection – Proposed Route

Construction of an overhead wood pole line

A typical “H” wood pole installation requires foundations of approximately 2.5m by 3m across and to a depth of around 2 metres.

To minimise construction impact and the requirement for access tracks, helicopters are used wherever possible to help deliver the materials to the site.

The picture opposite shows a typical helicopter delivery of the steel work used on the top of a pole and the baulk timbers used in the foundation at the base of each structure. Helicopters are also used to assist with the stringing of the conductors.

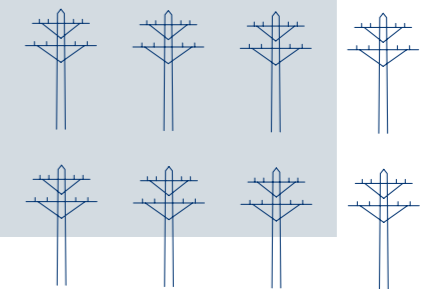
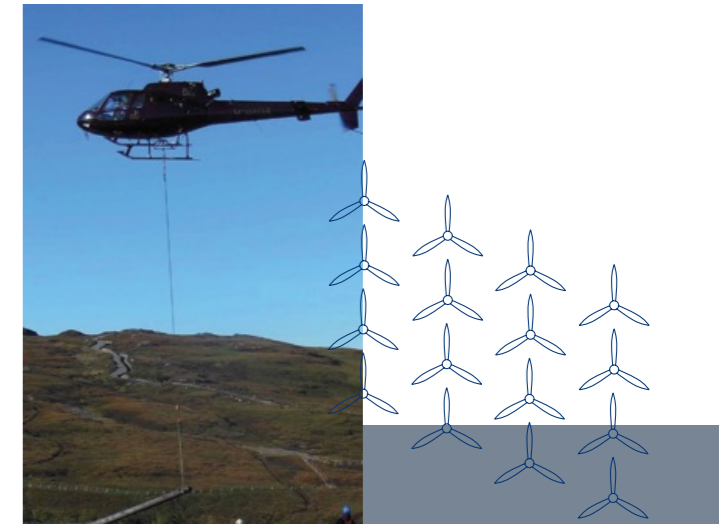
Opposite is a typical example of an angle wood pole which requires additional stays. Note that stays are not usually required on non-angle poles unless ground or weather conditions dictate.

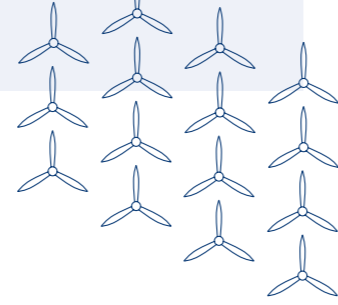
Construction of access tracks

Access tracks will only be constructed where access by all-terrain vehicles or the use of trackway is not feasible.

Access tracks will be constructed with imported and/or locally sourced material.

Access tracks are not usually retained after construction of the overhead line. Permanent access may be required to terminal structures where an OHL meets a cable section.





Next steps

Now that the preferred route has been identified, the route will be taken forward into Stage 4: Alignment Selection, followed by further consultation prior to EA/EIA and consenting.

However, should further site and desk-based analysis at the Alignment and EA/EIA and Consenting stage identify a particular constraint, a further review of the proposed alignments may be required.

For more information on our project and the progress being made please sign up for updates on our project webpage (Webpage link here). Details on contacting our project team and giving feedback through our Community Liaison Manager can be found on the next page.

Further consultation

As designs progress for Stornoway Wind Farm Connection, we will undertake further consultation in 2026 to present our final design for your consideration and feedback.



What happens next and how do I have my say?

We understand and recognise the value of feedback provided by the community and stakeholders. Without this valuable feedback, we would be unable to progress projects and reach a balanced proposal.

The feedback period

We will accept feedback from now until **1 May 2025**.

How to provide feedback:

Submit your feedback online by scanning the QR code on this page or via the form on our project webpage at: ssen-transmission.co.uk/projects/project-map/stornoway-wind-farm-connection/

Email the feedback form to the Community Liaison Manager, or write to us enclosing the feedback form at the back of this booklet.

Our Community Liaison team

Each project has a dedicated Community Liaison Manager who works closely with community members to make sure they are well informed of our proposals and that their views, concerns, questions or suggestions are put to our project teams.

Throughout the life of our projects, you will hear from us regularly. We aim to establish strong working relationships by being accessible to key local stakeholders such as community councils, residents' associations and development trusts, and regularly engage with interested individuals.

What we're seeking views on

We are keen to receive your views and comments in regards to the following questions:

- Has the requirement for the project been clearly explained?
- Have we explained the approach taken to select the preferred OHL route adequately?
- Are there any additional factors, or environmental features that you consider important and should be brought to the attention of the project team?
- Do you have any other comments about the preferred route?
- Following a review of the provided information, how would you describe your understanding of the Stornoway Wind Farm Connection project?
- Overall, how do you feel about the Stornoway Wind Farm Connection project?


We encourage all interested community members to fill in a feedback form when submitting feedback, however if you prefer, you can email us to provide your feedback or ask any questions.

Community Liaison Manager

Kevin Morrison

 SSEN Transmission Battery Point, Stornoway, Outer Hebrides, HS1 2RT

 kevin.morrison@sse.com

 07586 237 814

Additional information:



The best way to keep up to date is to sign up to project updates via the project webpage:

ssen-transmission.co.uk/projects/project-map/stornoway-wind-farm-connection/

You can also follow us on social media:

 @asstransmission  @SSETransmission



To support everyone online, we provide accessibility and language options on our website through 'Recite Me'. The accessibility and language support options provided by 'Recite Me' include text-to-speech functionality, fully customisable styling features, reading aids, and a translation tool with over 100 languages, including 35 text-to-speech.

Please select "Accessibility" on our website to try out our inclusive toolbar."

Your feedback

Thank you for taking the time to read this information booklet. In order to record your views and improve the effectiveness of our information sessions, please complete this short feedback form.

Please complete in BLOCK CAPITALS. (Please tick one box per question only)

Q1. Have we adequately explained the need for the connection of the Stornoway Wind Farm?

Yes No Unsure

Comments:

Q2. Do you feel sufficient information has been provided to enable you to understand what is being proposed and why?

Yes No Unsure

Comments:



Q3. Are there any additional factors, or environmental features, that you consider important and should be brought to the attention of the project team?

Yes No Unsure

Comments:

Q4. Do you have any other comments about the preferred route?

Yes No Unsure

Comments:

Q5. Following a review of the provided information, how would you describe your understanding of the Stornoway Wind Farm Connection project?

Comments:



Q6. Do you have any particular concerns or queries on the proposed connection from Stornoway Wind Farm to Lewis hub Substation?

Yes No Unsure

Comments:

Full name: **Email:**

Telephone: **Address:**

We would like to send you relevant communications via email such as invitations to stakeholder events, surveys, updates on projects, services and future developments from the Scottish and Southern Electricity Networks group listed below. If you are happy to receive email updates please opt in by ticking the box below. You can unsubscribe at any time by contacting us at stakeholder.admin@sse.com or by clicking on the unsubscribe link that will be at the end of each of our emails.

If you would like to be kept informed of progress on the project, please tick this box

**Thank you for taking the time to complete this feedback form.
Please submit your completed form by one of the methods below:**

Post: SSEN Transmission Battery Point, Stornoway, Outer Hebrides, HS1 2RT

Email: kevin.morrison@sse.com

Online: <https://www.ssen-transmission.co.uk/projects/project-map/stornoway-wind-farm-connection/>

For information on how we collect and process your data please see our privacy notice available at today's event. This can also be obtained online at: [ssen-transmission.co.uk/privacy](https://www.ssen-transmission.co.uk/privacy)

Comments forms and all the information from today's event will also be available to download from the project website.

We intend to use Artificial Intelligence (AI) to assist our experienced teams in the analysis of your feedback, so we can categorise key points raised more quickly. You can learn more about how we're utilising AI at: [ssen-transmission.co.uk/AIFAQ](https://www.ssen-transmission.co.uk/AIFAQ)

Any information given on the feedback form can be used and published anonymously as part of Scottish and Southern Electricity Networks consultation report. By completing this feedback form you consent to Scottish and Southern Electricity Networks using feedback for this purpose.

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