



Scottish & Southern  
Electricity Networks

TRANSMISSION

# Loch Fearna Pumped Storage Hydro Connection

Overhead Line Routeing Consultation

May 2025



[ssen-transmission.co.uk/fearna](https://ssen-transmission.co.uk/fearna)

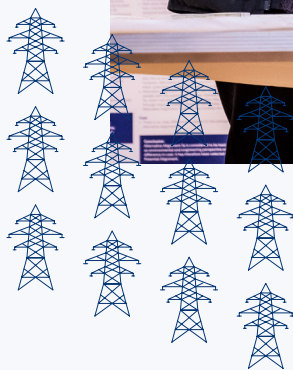




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The consultation event will be taking place on:  
Wednesday 14 May, 2–7pm  
Glengarry Community Hall, Invergarry, PH35 4HG



# 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) 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.**

## 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 and 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 our host 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. 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/](https://ssen-transmission.co.uk/talk-to-us/contact-us/)



More information about the policies and documents driving the need for the energy system for the future can be found here:



# Project overview

## Project Requirements

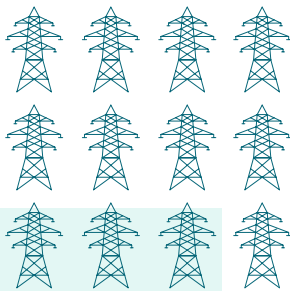
As part of the Scottish and UK Governments Net Zero climate change targets, significant increases in renewable generation connections to the GB energy network are required.

As Transmission Operator for the north of Scotland, we enable electricity generators to connect to the transmission system by providing their connections which allow the electricity generated to be transported to areas of demand. In collaboration with SSE Renewables, Gilkes Energy has submitted a planning application to develop a Pumped Storage Hydro (PSH) Scheme at the western end of Glengarry and requested a connection to the proposed Loch Lundie 132/400kV substation.

Our proposed new 400kV connection (300MW) between Gilkes Energy's proposed Loch Fearna PSH Substation and our proposed Loch Lundie Substation will provide the transmission connection required to transmit electricity generated by the Loch Fearna PSH to areas of demand on the GB transmission network.

## Project Elements

The project will require the construction of a new 400kV overhead line between Loch Quoich, where Loch Fearna PSH Substation is proposed to be situated, and the new Loch Lundie Substation.



The works will comprise of:

- Construction of approximately 25km of a new 400kV double circuit overhead line (OHL) which includes:
  - Tower foundations
  - Establishment of suitable laydown areas for materials;
  - Deliver of structures and materials to the site;
  - Assembly and erection of towers;
  - Stringing of conductors between towers
- Temporary ancillary works such as access tracks and compounds

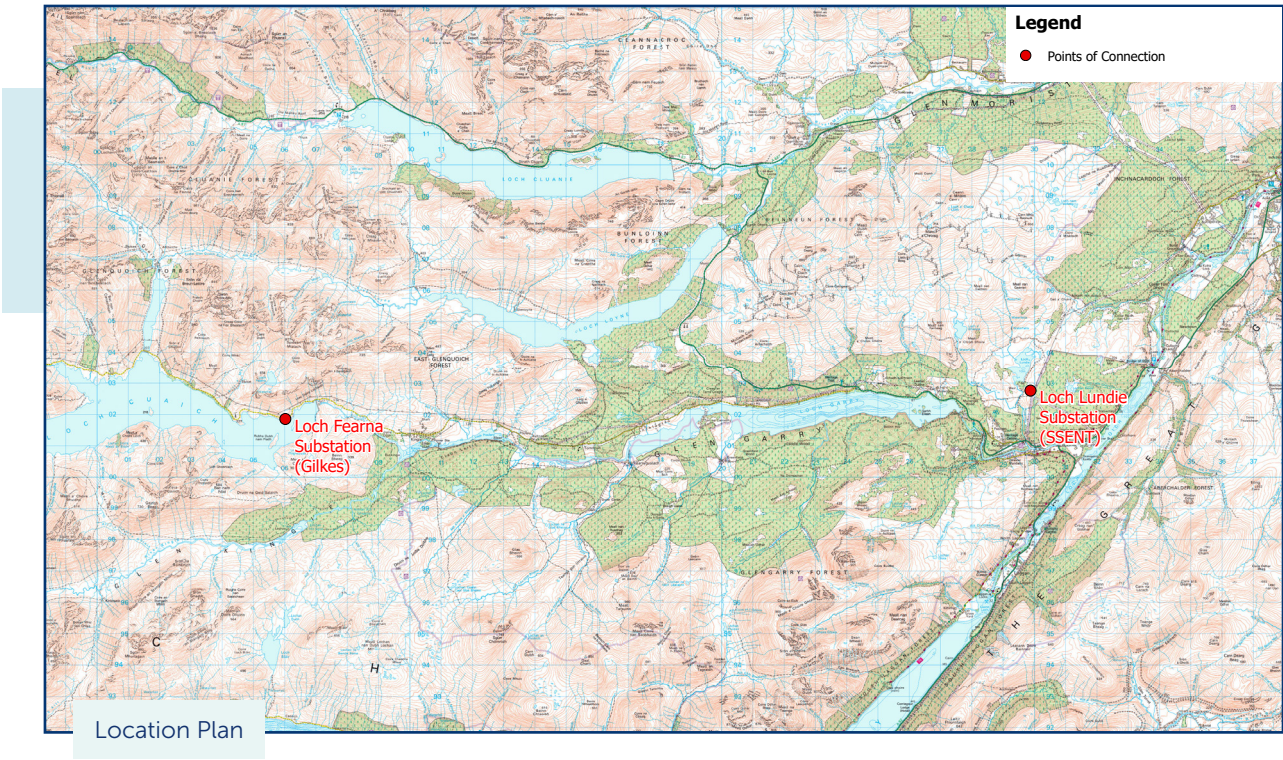
We will be working closely with other projects in the area identifying where access and construction infrastructure could be shared.



Please see:  
[www.ssen-transmission.co.uk/coire-glas-connection-project](http://www.ssen-transmission.co.uk/coire-glas-connection-project)  
for Information on the proposed new **Loch Lundie Substation** which will be delivered as part of the Coire Glas Connection project.

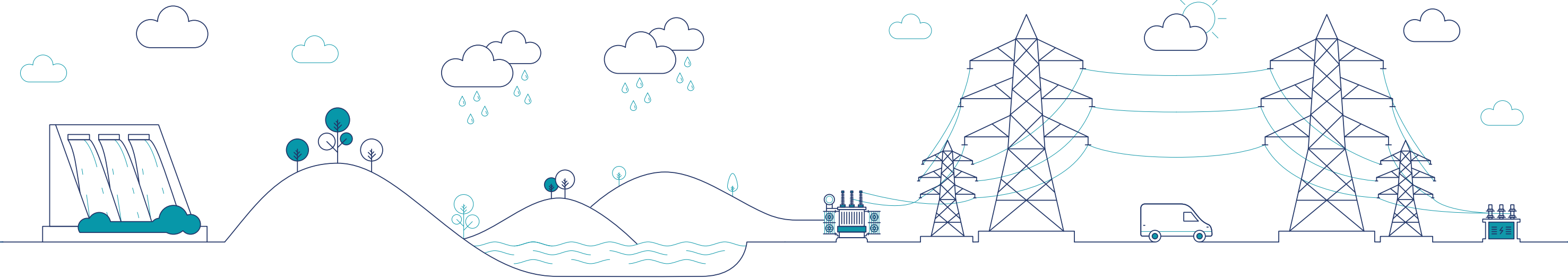
## Route Selection Consultation

At this stage in the development phase of the project we are looking to explain and consult stakeholders on the potential route of the connection. Following stakeholder engagement with the public, statutory bodies and landowners, we will finalise a proposed route taken forward to Alignment selection for formal environmental assessment, further local engagement/consultation and consent application.



A Corridor was identified within which the identification and appraisal of route options could be completed. The Corridor was developed to encompass a range of feasible route options between the two connection points at the proposed Loch Fearna PSH Substation (Gilkes) and the proposed Loch Lundie Substation (SSEN Transmission).

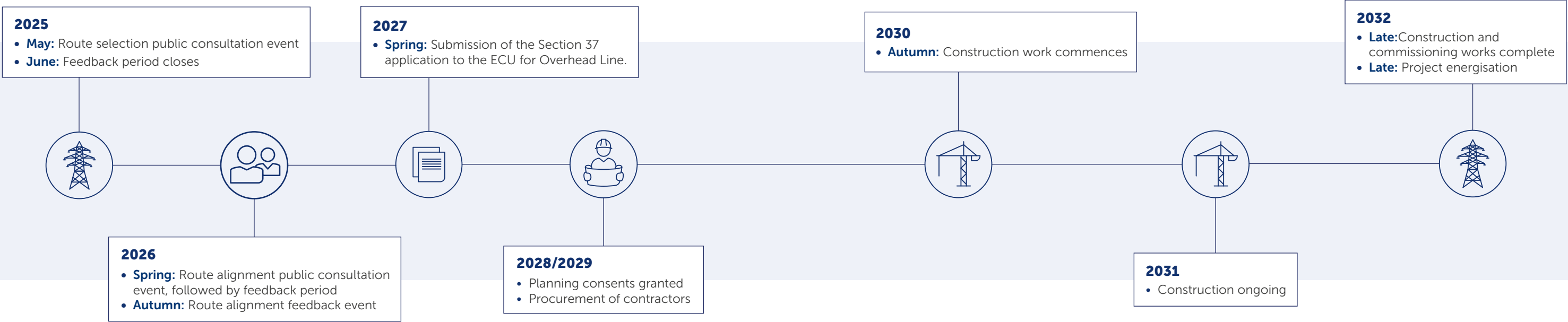
No other corridor options were identified due to the distance and geography between the identified connection points between the PSH scheme and the proposed Loch Lundie substation, which constrain any alternative corridor options.





# Project timeline

In parallel to the events below, we will undertake ongoing extensive consultation with the community, landowners and the developers Gilkes and SSE Renewables.



\*Please note that the timeline is indicative and subject to change.



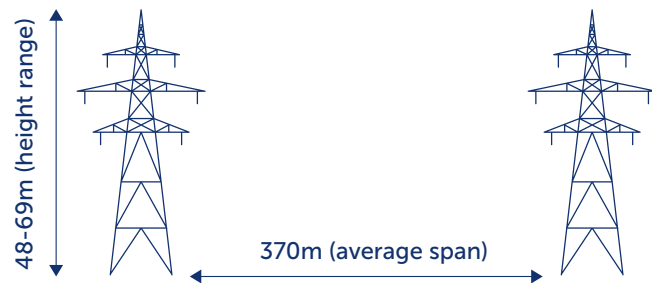
# Choice of technology for the 400kV steel tower line

The preferred technology for connecting Loch Fearna PHS to future Loch Lundie Substation will be steel lattice towers.

Use of steel lattice towers is the preferred engineering solution for the connection. The range of potentially viable options for the tower type was assessed via a red, amber, green (RAG) analysis against our design criteria. A wide range of steel towers are in use by SSEN Transmission, however the SSE400 tower suite has been selected for the Loch Fearna PSH OHL route as the most appropriate technically feasible and economically viable structure.

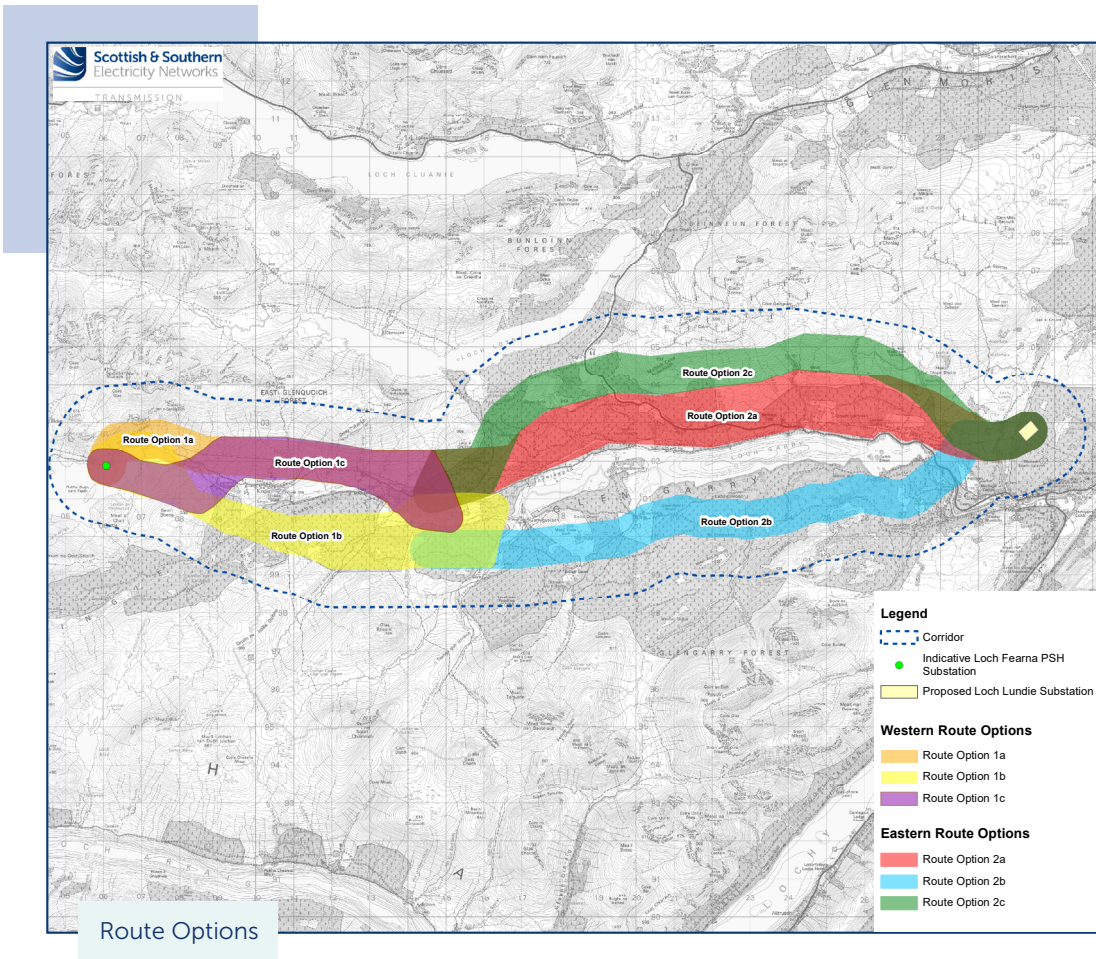
These towers are specifically designed to meet the challenges of constructing and maintaining overhead lines in the highlands of Scotland. The SSE400 design caters for high altitudes and steeply sloping terrain, which offers greater flexibility when aligning the OHL route.

It is currently anticipated that the steel lattice structures would be of the SSE400 suite of towers with a height range of between 48 and 69m tall and a standard span length of 370m.



# The proposed Loch Fearna PSH Connection - Routeing options

We have identified 6 route options based on initial desk-based review and site visits within the Area of Search. These are shown in the map below.



Route options were initially identified following desk-based review, informed by prior knowledge and experience of the area and making use of land form.

The Corridor for this project encompasses an area that formed part of the proposed Skye Reinforcement Project OHL. Thus, the route options identified were initially based on those identified as part of the Skye Reinforcement Project for this same area, and adapted in line with the connection points for this project and to account for additionally known constraints in the area.

A total of six route options have been identified for appraisal, as shown on the Figure.



# Detailed description of all routes considered

## Route 1a

Route Option 1a would commence from the connection point at Loch Fearna Pumped Storage Hydro (PSH) substation to the North of Loch Quoich Dam. The route option travels East, passing within the vicinity of the public road to Kinlochhourn and Gearr Garry, and to the north of Kingie and Loch Poulary. The route option then continues south-eastwards for approximately 2 km where it terminates within an area of forestry west of Tomdoun. The route option broadly follows the route of existing electrical infrastructure.

## Route 1b

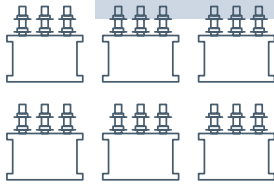
Route Option 1b commences from the connection point at Loch Fearna PSH substation and travels south-west, encompassing the eastern extent of Loch Cuaich and Loch Quoich Dam. It would continue southeast, crossing the Gearr Garry, passing to the north of the summit of Beinn Bheag to then remain on the south side of Gearr Garry, Kingie and Loch Poulary. The route option then continues south-east, prior to terminating within an area of forestry near Tomdoun.

It should be noted that in the area that Route Option 1b encompasses the eastern extent of Loch Cuaich, whilst the technology solution to cross the loch has not yet been determined, it has been assumed for the purposes of this appraisal that this would be a cabled solution, as opposed to requiring steel lattice towers to facilitate the crossing.

## Route 1c

Route Option 1c commences from the connection point at Loch Fearna PSH substation and travels south-west, encompassing the eastern extent of Loch Cuaich and Loch Quoich Dam before travelling northeast, passing to the north of the summit of Beinn Bheag and travelling the same route as Route Option 1b.

Route Option 1c then differs from Route Option 1b by turning north-east to cross the Gearr Garry glen, the Gearr Garry river and the public road before continuing on the northern side of Gearr Garry, Kingie and Loch Poulary. Route Option 1c would then continue south eastwards along the northern edge of Gearr Garry following the same route as Route Option 1a before terminating within an area of forestry west of Tomdoun. To the north of the River Garry, as per Route Option 1a, Route Option 1c broadly follows the route of existing electrical infrastructure in the area.



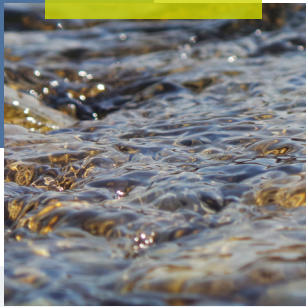
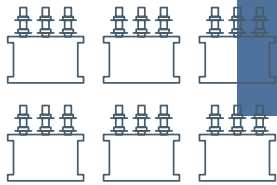
## Route 2a

Route Option 2a would travel in an easterly direction to the north of Loch Garry and the road to Kinlochhourn. The route option would require to cross the A87 before continuing towards Loch Lundie. This route option is largely routed through commercial forestry plantations and areas of woodland, and comprises existing electrical infrastructure. The proposed Skye Reinforcement Project, which would replace the existing 132 kV OHL, is located within this route option.

## Route 2b

Route Option 2b is predominantly routed through forestry plantation and areas of native woodland (including Caledonian Pine) within Glen Garry, to the south of Loch Garry.

From the south of Tomdoun, Route Option 2b travels east through areas of forestry and some open pasture. Near Glenluie and Whitebridge, at the south-eastern extent of Loch Garry, Route Option 2b travels in a north-easterly direction. It would cross the A87, the River Garry and popular walking routes. Route Option 2b then passes Faichem to the north-west before travelling in an easterly direction and connect into the proposed Loch Lundie substation.



## Route 2c

From Tomdoun, Route Option 2c would ascend the forested slopes in a north-easterly direction towards Cnocan Dubh and the A87. After crossing the A87, Route Option 2c would then travel eastwards to the south of Beinneun Wind Farm across often steep and hilly terrain. Route Option 2c would continue to travel in a south-easterly direction to the south of Loch Lundie, before connecting with the proposed Loch Lundie substation.

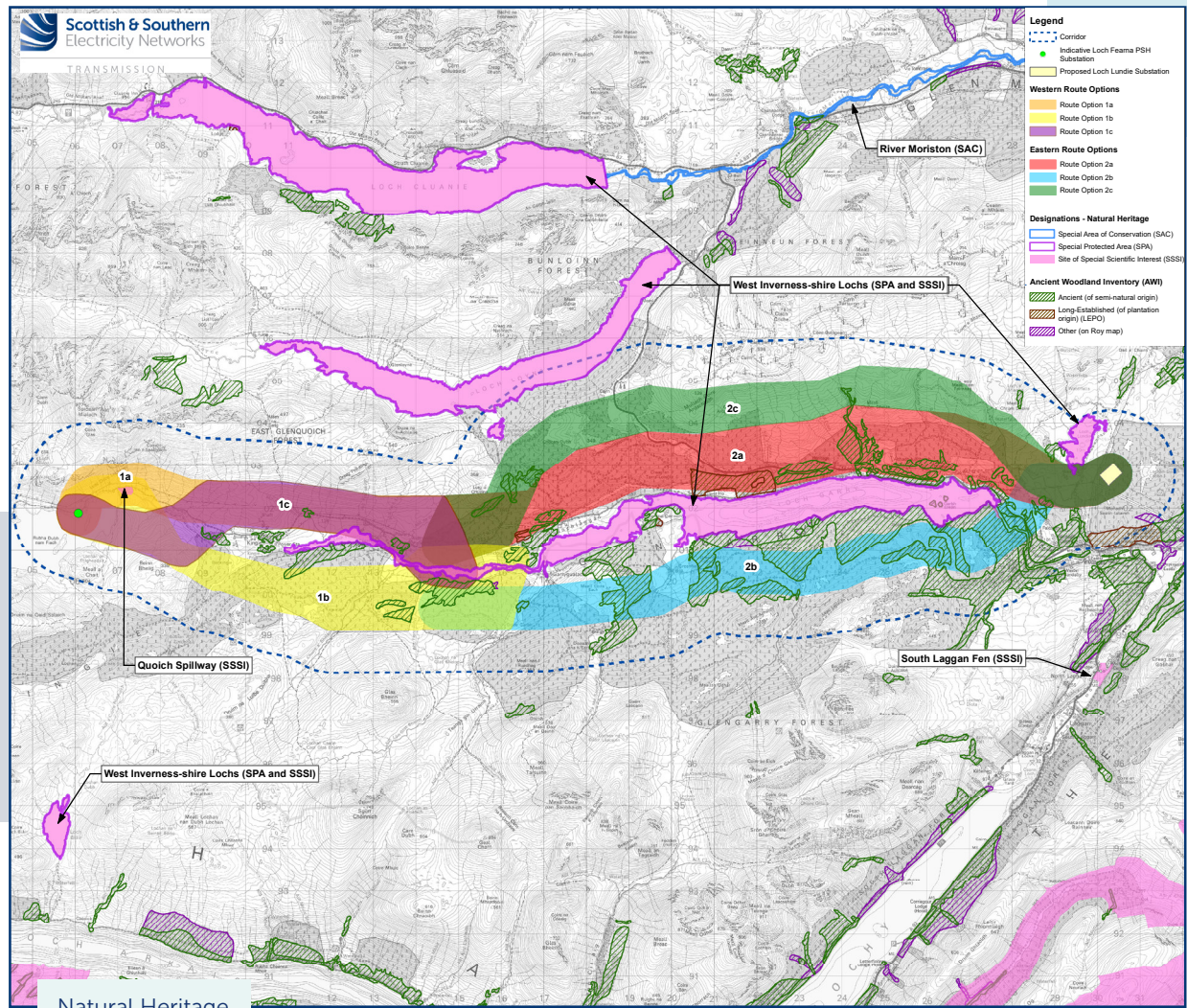
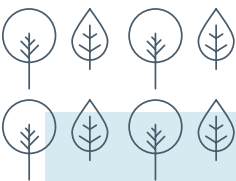




# Environmental constraints map and routes

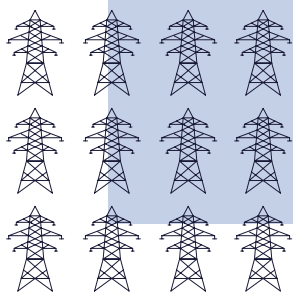


All maps/figures included in this booklet are available to download from the project webpage: [ssen-transmission.co.uk/fearna](https://ssen-transmission.co.uk/fearna)



As shown on the Figure, a number of designated sites and sensitive habitats fall within the Corridor, including the West Inverness-shire Loch SPA/SSSI and ancient woodland.

# Routeing options considerations



We identified 6 route options based on initial desk-based review and site visits within the area of search. Table 1 displays the environmental and engineering appraisal rating in a red, amber, and green scoring process for the route options considered.

## Key environmental constraints

Key constraints and considerations for all route options relate to impacts on sites designated for nature conservation (particularly the West Inverness-shire Lochs SPA/SSSI), ancient woodland and Caledonian Pine wood, sensitive habitats and peatlands, landscape and visual effects, forestry and planning proposals.

In relation to the two western route options, constraints and RAG ratings are generally comparable between the two routes. Route Option 1a follows the route of existing infrastructure and therefore offers opportunities to minimise the spread of new infrastructure to the south of the River Garry, albeit the potential for cumulative effects would require further consideration at the alignment selection stage. Route Option 1b would likely have greater impacts on forestry, and would be located within an area less developed than the northern side of the glen, albeit this landscape does have some capacity to accommodate development of this type. Route Option 1c would also cross Gearr Garry glen, appearing prominent from the public road and mountain route and is the least preferred western route option.

Of the three eastern route options, whilst Route Option 2b would be preferable in terms of impacts to SPA species given it is to the south of Loch Garry (with commuting flights typically heading north), this route option would pass through areas of ancient woodland, Caledonian pine wood and native woodland, requiring significant felling throughout the route. Route Option 2a is preferable to Route Option 2c in terms of the potential for collision risk given it is situated on lower ground with opportunities for back-clothing of topography and tree cover to minimise impacts. There are areas of ancient woodland within Route Option 2a, which is largely forested in nature, but it is anticipated there are opportunities to minimise impacts on ancient woodland at the alignment selection stage. Route Option 2c has the potential to be significantly constrained by the proposed Beinneun 2 Wind Farm.

Overall, the preferred environmental route is considered to be Route Option 1a and Route Option 2a. Whilst Route Option 1b provides a potential option, the fact it would need to cross the SPA to form a connection with Route Option 2a would increase its RAG ratings in relation to the SPA, and therefore Route Option 1a, connecting with Route Option 2a, is the preferred environmental route overall.





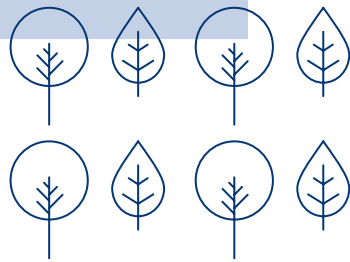


Table 1: Environmental RAG Rating

Category	Sub-topic	Western Route Options			Eastern Route Options		
		1a	1b	1c	2a	2b	2c
Natural Heritage	Designations	A*	R	R	R	A	R
	Ancient Woodland Inventory (AWI)	A	A	A	A	R	A
	Protected Species	A	A	A	A	R	A
	Habitats	A	A	A	A	R	A
	Ornithology	A*	R	R	A	A	R
	Geology, Hydrology and Hydrogeology	A	A	A	A	A	A
Cultural Heritage	Designations	G	G	G	G	G	G
	Cultural Heritage Assets	G	G	G	G	G	G
People	Proximity to Dwellings	A	G	A	A	A	G
Landscape & Visual	Designations	A	R	R	G	G	G
	Character	A	R	R	A	A	A
	Visual	A	R	R	A	A	A
Land Use	Agriculture	G	G	G	G	G	G
	Forestry	A	A	A	A	A	A
	Recreation	G	G	G	G	A	G
Planning	Policy	A*	R	R	R	R	R
	Proposals	A	R	R	A	A	R

\* Would be RAG rated Red if connection into Route Option 2b is required due to crossing of Gearr Garry glen.

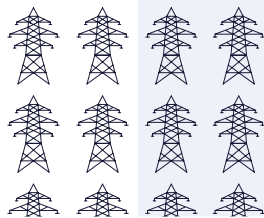


Table 2: Engineering RAG Rating

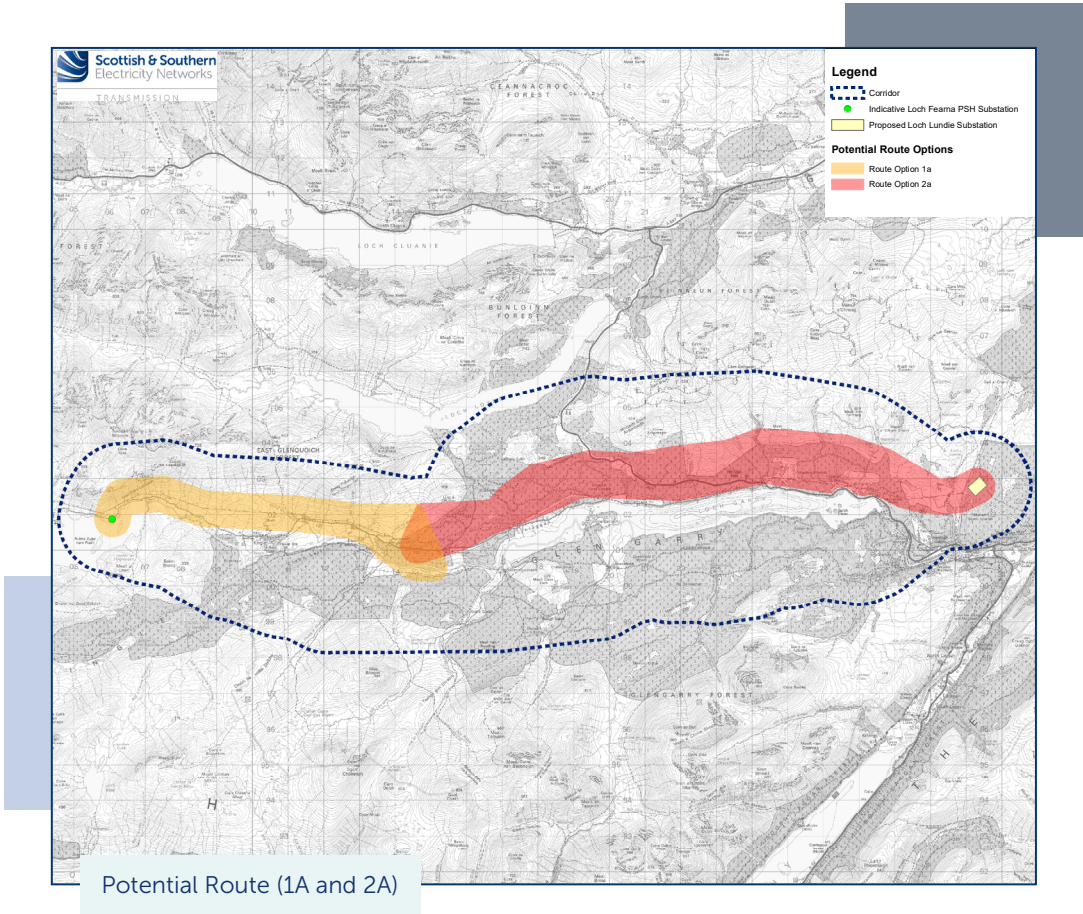
Category	Sub-topic	Western Route Options			Eastern Route Options		
		1a	1b	1c	2a	2b	2c
Infrastructure Crossing	Major Crossings	A	R	R	A	A	A
	Road Crossings	A	G	A	A	A	A
Environmental Design	Elevation	R	R	R	R	A	R
	Atmospheric Pollution	G	G	G	G	G	G
	Contaminated Land	G	G	G	G	G	G
	Flooding	A	A	A	A	G	G
Ground Conditions	Terrain	A	A	A	A	A	A
	Peatland	R	R	R	R	R	R
Construction & Maintenance	Access	G	A	G	G	A	R
Proximity	Clearance Distance	A	G	R	R	R	A
	Windfarms	G	G	G	A	G	R
	Communications Masts	G	G	G	R	R	A
	Urban Developments	G	G	G	G	G	G
	Metallic Pipes	G	G	G	G	G	G
Other Considerations	DNO Crossings	A	G	A	G	A	G

R= Red/High      A= Amber/Medium      G= Green/Low

Potential route

The routing assessment concluded that the combination of Route Option 1a and Route Option 2a is the potential route which we believe offers the overall best balance of technical and environmental impact considerations identified through the initial assessments.

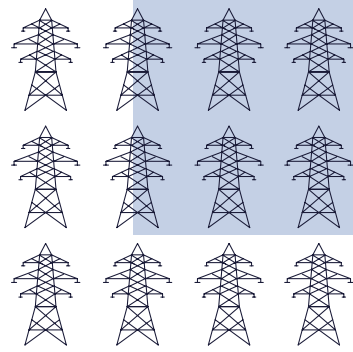
This is now subject to consultation with stakeholders, where local and previously unknown considerations may confirm, or alter, the initial preference. Once a potential option is confirmed it will be taken forward to the Alignment Selection stage of project development.



Whilst a potential route has been identified, this appraisal has demonstrated that there is high likelihood for the development to be constrained given the presence of designated sites, ancient woodland, ornithological sensitivities, forestry, landscape and visual constraints. The potential for cumulative effects across a number of topic areas with other existing and proposed electrical infrastructure projects has also been noted and will be a key consideration during the alignment selection stage of the project.

As such, should the potential route be taken forward to the alignment selection stage as the proposed route following consultation, mitigation measures would need to be considered and implemented in order to minimise the potential for likely significant environmental effects. This should include the consideration of underground sections of the line of greatest constraint, and where technically viable.





# Other projects in the local area

As the transmission operator in the north of Scotland, we need to maintain and invest in the high voltage electricity transmission network in our area to provide a safe and reliable electricity supply to our communities.

We also need to offer terms for connections to the transmission network for new generation such as wind farms and pumped storage schemes and for new sources of electricity demand.

Therefore, as well as the connection for the proposed Loch Fearna PHS, we have a number of other projects within the local area we are currently progressing:

## Skye Reinforcement

SSEN Transmission are proposing to reinforce the electricity transmission network from Fort Augustus to Ardmere on the Isle of Skye. In the Glengarry area this project proposes the construction of:

- Underground Cable section from Fort Augustus to Loch Lundie
- A new double circuit 132kV steel tower overhead line (OHL) between the Loch Lundie and Glenelg

## Quoich Switching Station

The Quoich Switching Station Project has undergone an extensive review and has now been fully integrated into the Skye Reinforcement project. We are working on a solution where the Quoich Switching Station will become redundant. In this scenario the replacement overhead line from the Quoich Power Station will directly link into the new proposed Skye overhead line.

## Coire Glas Connection & proposed Loch Lundie Substation:

This project covers the connection of the Corrie Glas PSH to the grid and includes the new proposed Loch Lundie Substation near Loch Lundie.

## Proposed Beinn Bheag Windfarm

We have not yet received an application from RES for the connection of Beinn Bheag windfarm. Therefore no detail on any potential connection is available at this stage.

We know that local stakeholders are keen to understand the full extent of renewable developments being proposed in their local area.

Applications to connect to the transmission network in our licence area are made to National Grid ESO and undergo a lengthy process of assessment before we begin to develop a network connection for those developments.

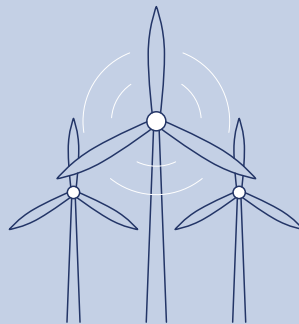
We aim to be transparent about the renewable developments looking to connect to our network but are not permitted to disclose any details of these developments until they are in the public domain.

A list of projects that hold contracts for Transmission Entry Capacity (TEC) with The National Energy System Operator (NESO) is available from their website: Transmission Entry Capacity (TEC) register: [www.neso.energy](http://www.neso.energy)

## Search projects



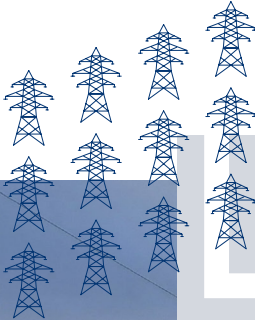
[ssen-transmission.co.uk/projects](http://ssen-transmission.co.uk/projects)



# Finding common ground with landowners

We recognise that landowners and occupiers are key stakeholders in the development of our projects. At all levels, we will be transparent about our proposals and keep the conversation open and constructive when it comes to those affected and reaching effective compromise.

From the outset of the project, our land team have been identifying and contacting landowners and occupiers who may be affected by our proposals. If you are a landowner who is affected by the proposals and have not yet had contact from us, please get in touch via the contact details for the dedicated project land managers found on the relevant project webpages.





# Have your say

We value community and stakeholder feedback. Without this, we would be unable to progress projects and reach a balanced proposal.

## The feedback period

We will accept feedback from now until **25 June 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/fearna](https://ssen-transmission.co.uk/projects/fearna)

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 want you to share your thoughts and opinions on our plans, where you think we can make improvements, concerns about the impact of this proposed project any changes or refinements we can make.

In particular, we want to know if you have any comments on the potential route we have identified, or thoughts about the alternatives shown.

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

Maren Ebeling



SSEN Transmission 10 Henderson Road,  
Inverness, IV1 1SN



07721 462 330



[maren.ebeling@sse.com](mailto:maren.ebeling@sse.com)

## 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/fearna](https://ssen-transmission.co.uk/fearna)

# Loch Fearna PSH Connection - feedback

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

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

## Q1. Has the need for the project been clearly explained?

☐ Yes ☐ No ☐ Unsure

Comments:

## Q2. Have you any comments regarding the location of the potential Route?

☐ Yes ☐ No ☐ Unsure

Comments:

## Q3. Are there any additional factors or environmental features that you would like to bring to the attention of the project team?

☐ Yes ☐ No ☐ Unsure

Comments:



**Recite** me

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."

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**Q4. Is there anything specific you would like to raise in relation to the project which will impact on the development process to deliver this essential connection project to support Government net-zero targets?**

☐ 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](mailto: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, 10 Henderson Road, Inverness, IV1 1SN

**Email:** [maren.ebeling@sse.com](mailto:maren.ebeling@sse.com)

**Online:** [www.ssen-transmission.co.uk/fearna](http://www.ssen-transmission.co.uk/fearna)

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: [ssn-transmission.co.uk/privacy](http://ssn-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: [ssn-transmission.co.uk/AIFAQ](http://ssn-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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