

# Blarghour Wind Farm Connection Project Alignment Consultation

July - August 2023



## Share your views with us:

We are launching a public consultation to seek feedback on the alignment selection for Blarghour Wind Farm Connection project in Argyll and Bute.

Information on our proposals is available within this consultation booklet and on the project webpage:  
[www.ssen-transmission.co.uk/projects/project-map/blarghour-wind-farm-connection-project](http://www.ssen-transmission.co.uk/projects/project-map/blarghour-wind-farm-connection-project)



**Scottish & Southern**  
Electricity Networks

TRANSMISSION

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# Who we are

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



## What is the difference between transmission and distribution?

Electricity transmission is the transportation of electricity from generating plants to where it is required at centres of demand. The electricity transmission network, or grid, transports electricity at very high voltages through overhead lines, underground cables and subsea cables.

Our transmission network connects large scale generation, primarily renewables, to central and southern Scotland and the rest of Great Britain. It also helps secure supply by providing reliable connection to the wider network of generation plants.

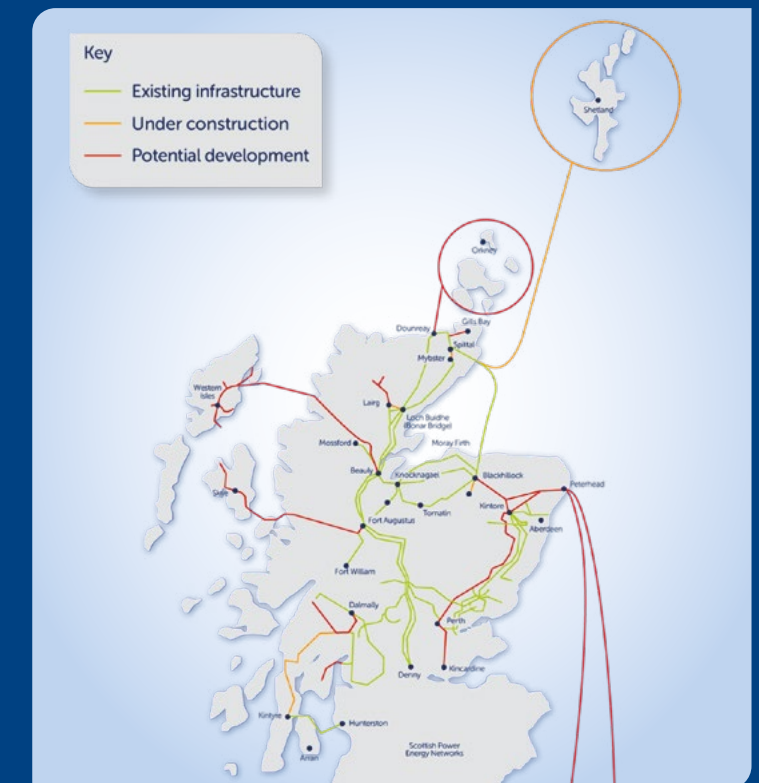
The electricity distribution network is connected into the transmission network but the voltage is lowered by transformers at electricity substations, and the power is then distributed to homes and businesses through overhead lines or underground cables.

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

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

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

## Overview of transmission projects



## Our responsibilities

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

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



# About the project

**Blarghour Wind Farm, located 7 km north west of Inveraray and 4.5 km east of Dalavich, between Loch Awe and Loch Fyne in Argyll & Bute, requires a single circuit connection from the proposed wind farm substation to the proposed Creag Dhubh Substation. The 132 kV connection will consist of approximately 9 km of overhead line (OHL) which will transition from a wood pole terminal structure to approximately 350 m of underground cable (UGC) on approach to Creag Dhubh Substation.**

The proposed project would involve:

- Approximately 9 km of overhead line to carry a single circuit 132 kV. The technology options considered include overhead line comprised predominantly of trident "H" wood pole supports, switching to trident "H" steel poles or steel lattice towers at altitudes over c. 300 m AOD. Installation of steel lattice towers will require construction of foundations.
- Approximately 350 m underground cable (UGC) to connect the overhead line to the Creagh Dhubh substation. This would require excavation of a trench for cable ducts and the construction of joint bays.
- Felling commercial forestry to create an operational corridor to enable the safe operation and maintenance of the overhead line.
- Associated works will include creation of temporary laydown areas for materials and welfare facilities, installation of permanent and temporary access tracks and drainage infrastructure.
- Remedial works to reinstate the immediate vicinity of the works and any ground disturbed, to pre-existing use.



Indicative trident "H" wood pole



Indicative trident "H" wood pole



Indicative steel lattice tower

# Project history – previous consultation

We consulted on the two route options (Route 1 and Route 2) for the proposed development in May 2022. The consultation period opened on 11th May 2022 and continued until 6th June 2022. The Consultation Document concluded that the preferred route 2 was marginally preferable over Route 1. The consultation process had further highlighted that Route 2 would likely have a lower impact on interested assets. Notably these include:

- A lower potential for impact to sensitive habitats including peat and blanket bog;
- Route 2 may be preferable due to the ability to backcloth the overhead line in Glen Aray, and route alongside existing electrical and road infrastructure;
- Route 2 runs alongside existing infrastructure providing better potential access for the majority of the route;
- Route 2 is at lower elevation which is likely to reduce restrictions and impacts on the selection of a suitable tower/pole structure relative to Route 1.
- The constraints present along Route 2 are well understood in order to provide potential mitigation;

**The consultation process confirmed that route 2 remained the preferred route, hence route 2 was taken forward as the proposed route.**

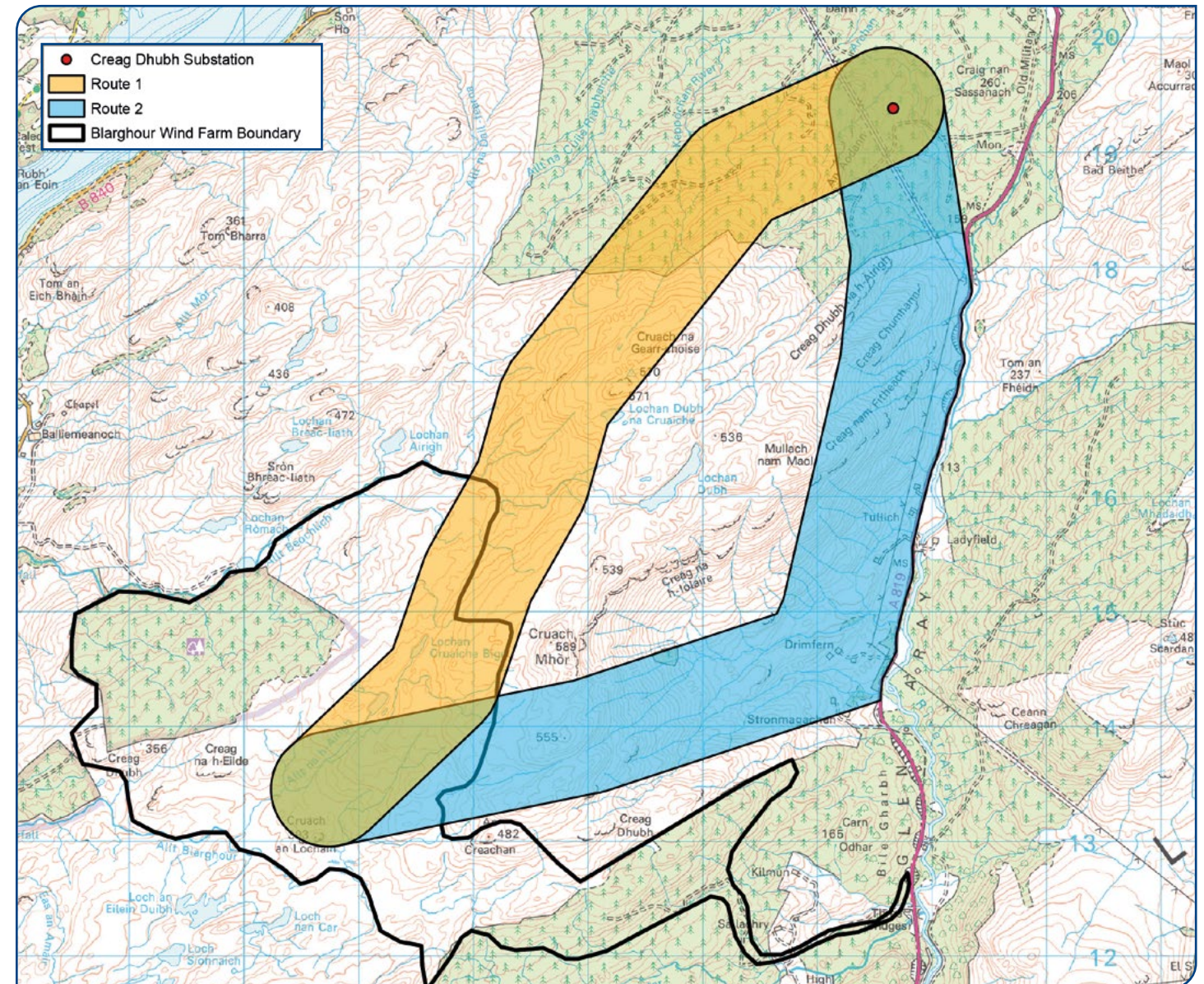


Figure 1. Route options



# Alignment – route alignment selection process

The proposed route identified and consulted on during the previous stage of the routing process has been utilised for the alignment purpose as all alignment options considered are identified within the proposed route.

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Due to technical and safety constraints associated with existing Inveraray to Taynuilt West overhead line infrastructure and the proposed Creag Dhubh to Inveraray 275 kV overhead line there is only one viable alignment option to be considered for both the overhead line and UGC sections. Safety of the line during the operation and maintenance phase (post construction) prevents SSEN Transmission designing multiple crossing points between transmission overhead line. Further to this, the location of an existing overhead line running parallel to the A819 requires adequate safety clearance such that when the steel lattice towers are removed the work force and surrounding infrastructure are not put at risk. Additionally, the topography

of the site immediately adjacent to steep ground and cliffs, for the most part, prevents lateral movement of the overhead line to the west.

The overhead line alignment heads north south east out of Blarghour Wind Farm Substation, for approx. 4.8 km, towards Drimfern. From Drimfern the overhead line alignment heads approximately 4.2 km north, in parallel to the A819 toward Taynafead, prior to terminating at a terminal wood pole structure where the overhead line alignment will underground.

The UGC Alignment will commence from the terminal wood pole structure located immediately adjacent to a forestry track within Keppochan Forest. From here the UGC Alignment crosses the track and follows the opposite verge in a north easterly direction for approx. 350 m before passing north into the proposed Creag Dhubh Substation.

## This consultation

Overhead line routing is a balance between environmental, engineering and cost considerations, with stakeholder and public consultation comprising a key element of this process.

This project is at the alignment optioneering stage of development, and we are consulting with local stakeholders to provide an update on our proposals and to share considered alignment options and the preferred alignment. We have identified a preferred alignment on which we are keen to hear your views.

After receiving feedback from this consultation and carrying out further environmental and more detailed technical assessments to help us refine our proposal, we will confirm the selected alignment to take this forward to consent application.

## This consultation

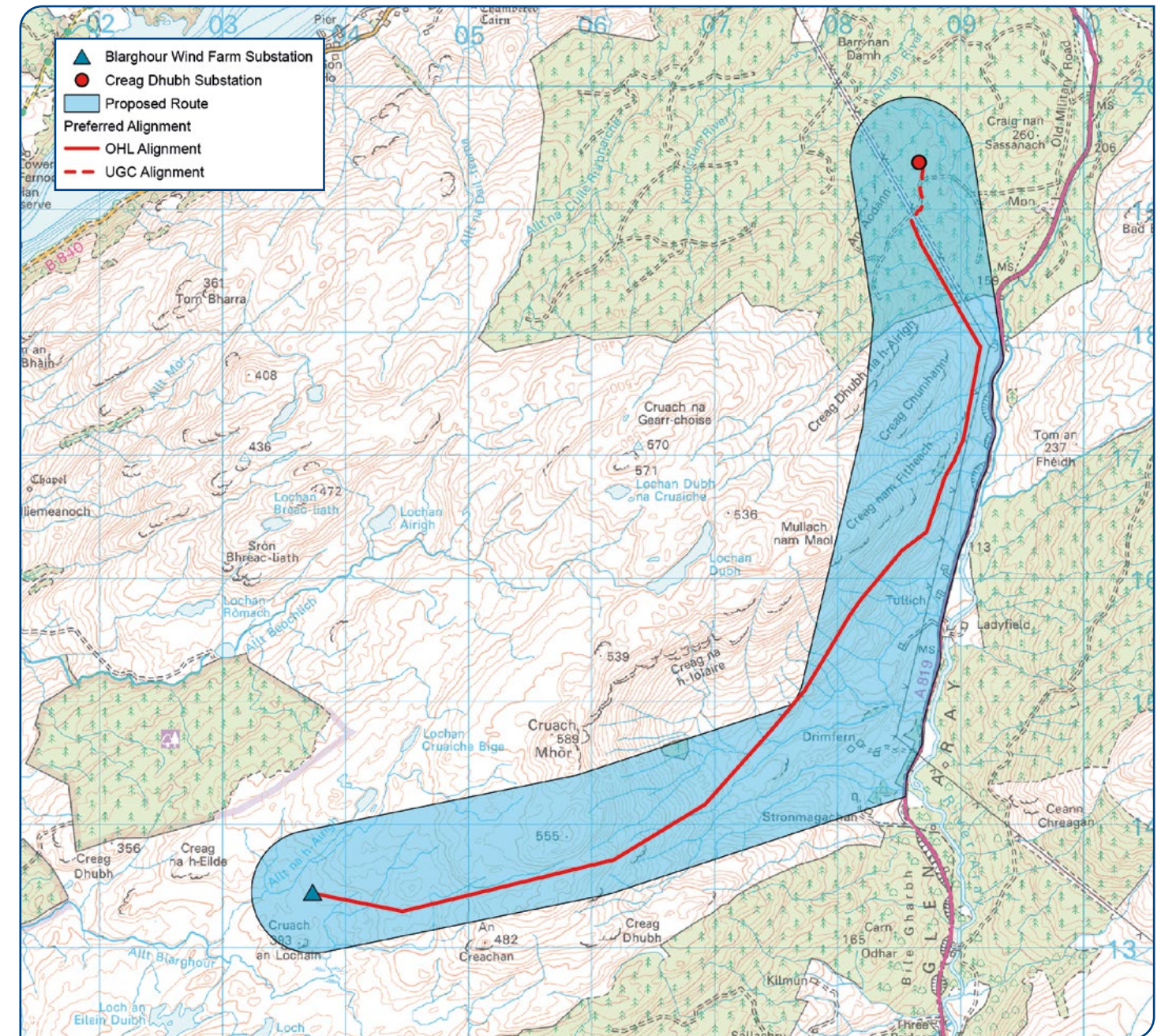


Figure 2. Alignment option



# Alignment – route alignment selection process

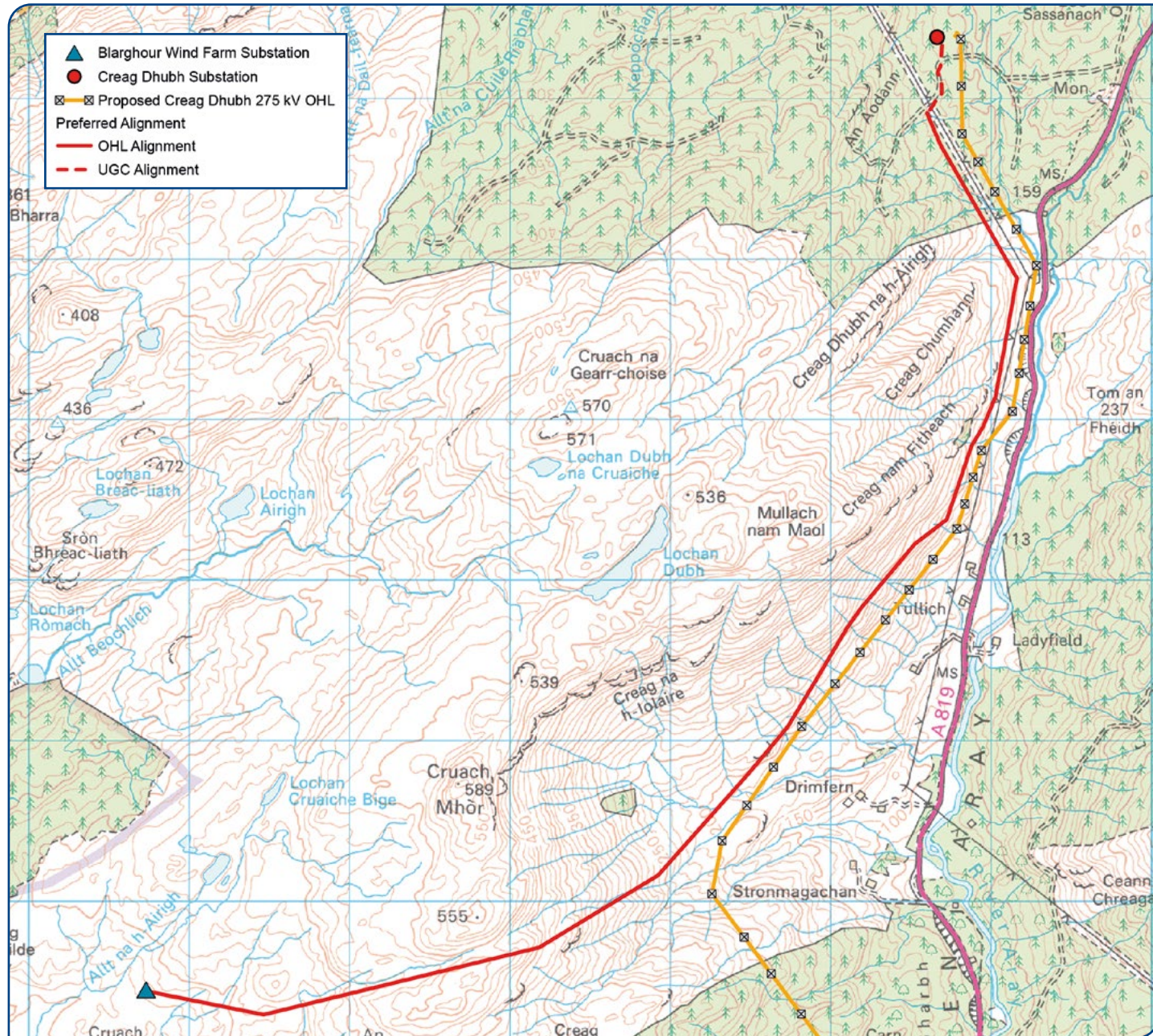


Figure 3. Proposed and existing infrastructure.

# Environmental information

Analysis of environmental constraints has identified sensitivities in relation to the environmental topics identified in the RAG table (see below). The key environmental considerations are:

- Glen Etive and Glen Fyne Special Protection Area (SPA) for breeding population of golden eagle is located approx. 150 m to the west of the overhead line alignment at the closest point.
- There are large areas of Class 2 peat present within the most southerly part of alignment and near Glen Etive and Glen Fyne area.
- A small section of the northern part of the study area is located within the North Argyll Area of Panoramic Quality (APQ).
- Potential visual effects would be primarily experienced by residents in isolated properties along the route of the A819 road.
- Within the southern section of the overhead line alignment, between the proposed Blarghour Wind Farm Substation and just before Drimfern, overall, the habitats are dominated by blanket bog, degraded blanket bog and upland acid grassland.
- Commercial forestry at Keppochan Forest would need to be felled to create a clear space for the construction and operation of the overhead line and UGC Alignments.

Environmental RAG impact rating	Overhead line alignment	UGC	
Natural heritage	Designations	M	L
	Protected species	L	L
	Habitats	H	L
	Ornithology	M	L
	Hydrology/geology	M	L
Cultural heritage	Designations	M	L
	Assets	L	L
People	Dwellings	L	L
Landscape	Designations	M	L
	Character	L	L
	Visual	M	L
Land use	Agriculture	L	L
	Forestry	M	M
	Recreation	L	L
Planning	Proposals	M	L
	Policy	M	L





# Engineering information - overhead line

To demonstrate the full extent of comparative analysis undertaken for each alignment option, we created Red/Amber/ Green (RAG) tables which illustrate the level of associated impact for each criterion under environment and engineering.

A high impact is shown as red, a medium impact is shown as amber, and a low impact is shown as green. For further information on the alignment options analysis, please refer to the Consultation Document available from the project webpage:

[www.ssen-transmission.co.uk/projects/project-map/blarghour-wind-farm-connection-project](http://www.ssen-transmission.co.uk/projects/project-map/blarghour-wind-farm-connection-project)

- Topography of the site with the presence of steep slopes restrict the available corridor for the overhead line alignment.
- The most southern section of the overhead line approximately exceeds an elevation of 300 m AOD and slop gradients exceeding 20% which will necessitate the use of steel poles or lattice steel towers.
- High elevations increase wind and ice loading on the lines resulting in the need for shorter spans or stronger structures.
- Significant areas of peatland have been identified along the overhead line alignment in particular on approach to the wind farm substation.
- Although the overhead line alignment is not located near any existing accesses, it provides opportunity to utilise the new accesses for the proposed Creag Dhubh to Inveraray 275 kV overhead line for approximately two-thirds of the overhead line alignment, this provides opportunity to allow the operation of the lines to be directly linked. In addition, it is expected that access can also be obtained from the proposed permanent access for the consented Blarghour Wind Farm.
- High number of angle supports will be required, this tend to be more difficult to construct, due to the number of angle pull throughs, and often require more extensive access.

Engineering RAG rating of the overhead line and UGC alignment options

Engineering RAG impact rating	Overhead line alignment	UGC	
Infrastructure crossings	Major crossings	L	M
	Minor roads	L	M
Environmental design	Elevation	H	H
	Flooding	L	L
Ground conditions	Terrain	M	H
	Peatland	H	H
Construction and maintenance	Access	M	L
	Angle towers	M	L
Proximity	Clearance distances	L	L
	Wind farms	L	L
	Communications masts	L	L

# What else is happening in Argyll?

## Development projects

### Creag Dhubh to Inveraray 275 kV overhead line

This project involves constructing nearly 9 km of new 275 kV overhead line (overhead line), supported by steel lattice towers, between the proposed new substation at Creag Dhubh and a connection point at tower 18 on the recently constructed Inveraray to Crossaig overhead line. The new line will be operated at 275 kV once the associated transmission network in the Argyll and Kintyre region has been upgraded to 275 kV capability. This application was submitted earlier in 2023 and SSEN transmission are currently awaiting decision from Energy Consents unit.

### Creag Dhubh to Dalmally 275 kV connection

We continue to engage with the community in Dalmally regarding the alignment which has been taken forward in our Section 37 Application for the Creag Dhubh to Dalmally 275 kV Connection. This project is currently sitting at PLI awaiting decision to be made.

### Argyll and Kintyre 275 kV substations – An Suidhe, Crae, Craig Murrail and Crossaig North

We sought feedback from the public in our pre-application consultation events for the Argyll and Kintyre substations in December 2021 - January 2022. The applications for all four substations were submitted in late 2022. SSEN Transmission have been granted consent for An Suidhe and Crae and are awaiting decision on Craig Murrail and Crossaig North.

### Sloy Power Station substation rebuild

Transmission assets at Sloy Power Station substation are reaching the end of their operational capabilities and need to be replaced.

This project includes construction of a new substation near the existing site, tower and gantry works for connection to the existing overhead line, 11 kV cables to be installed to connect back to the power station from the new substation location and removal of existing equipment at the existing substation.

This project had the site selection consultation in June 2023, we are planning a further round of consultation in Autumn 2023.

### Dunoon overhead line rebuild

The Dunoon overhead line rebuild project is to replace the existing transmission overhead line which connects Dunoon to the wider national grid.

The existing overhead line is supported by an old design suite of steel lattice towers (often referred to as pylons) which are coming towards the end of their operational capabilities.

The project is currently in development and following consultation on the preferred route alignment in August 2021, SSEN Transmission submitted their Section 37 application for this project in February 2023 and are currently awaiting the outcome.

### Glen Falloch and Sloy VISTA

As part of the SSEN Transmission VISTA (Visual Impact of Scottish Transmission Assets) initiative, we have installed a 132 kV twin cable section of the existing 132 kV double overhead line circuit at Sloy and Glen Falloch. Construction commenced in 2021 and 26 steel towers have now been removed.

### Wind farm connection projects

The Argyll and Kintyre 275 kV Strategy is required to facilitate renewable generation in Argyll. We also have a requirement to connect this renewable generation to our upgraded infrastructure.

### High Constellation wind farm connection

This project aims to connect High Constellation wind farm to the existing Crossaig substation via approximately 400 m of underground cable by spring 2025.

### Earraghail Wind Farm

The project aims to connect the Earraghail Wind Farm development via c. 5.4 km of 275 kV double circuit overhead line onto the existing Craig Murrail – Crossaig overhead line for spring 2027.

### Tangy IV Wind Farm

The project aims to connect the Tangy IV Wind Farm development via approximately c. 19.5 km of 132 kV single circuit overhead line onto the existing Crossaig Carradale overhead line for spring 2027.

## Construction projects

### Inveraray – Crossaig reinforcement

This project involves the rebuild of the existing overhead line between Inveraray and Crossaig and has been in construction since late 2019. Construction of phase 1 of the project (Inveraray to Port Ann) was completed in March 2022, and construction of phase 2 commenced in autumn 2021. This project energised in June 2023, we are currently working on dismantling the old overhead line.

### Carradale substation

The aim of this project is to reinforce Carradale substation in order to enable renewable generation connection requests. This involves the replacement of four existing transformers with higher capacity unity to enable this upgraded connection. Work is ongoing and scheduled completion is summer 2023. Each of our projects are ultimately given their own dedicated project website.

This is where you will find regular, more specific updates regarding the latest news and timelines relating to the individual projects works.

To view the complete list of projects with websites please use the following URL: [www.ssen-transmission.co.uk/projects](http://www.ssen-transmission.co.uk/projects)

# Notes

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# How do I have my say?

We understand and recognise the value of the feedback provided by members of the public during all engagements, consultations and events. Without this valuable feedback, the project development team would be unable to progress projects and reach a balanced proposal to submit for planning.

Our consultation opens on the 17th of July until the 18th of August. Please join us at our consultation event on the Wednesday 2nd August 2023

Our consultation event has been organised to ensure our project team will be available to answer questions on the following date and times:

Wednesday 2nd August 2023 at  
Loch Fyne Hotel, Inveraray, Scotland, PA32 8XT

The feedback forms in this booklet can be detached and sent back, or you can fill them in online using the forms on the project webpages. We do request that any feedback that you wish to be included in the Report on Consultation is received in written format (feedback received via phone calls will be circulated to the project team but would not be included in reporting).

All feedback received will be collated, reviewed and included in the report on consultation which will be published on the project webpage.

## Keep in touch

In you have any questions of require further information regarding either of these projects, please do not hesitate to contact the Community Liaison Manager:

**Caitlin Quinn** Community Liaison Manager



caitlin.quinn@sse.com



M: +44(0)7901 135758



Scottish and Southern  
Electricity Networks,  
1 Waterloo St,  
Glasgow, G2 6AY



If you are unable to join the face to face and virtual consultation live chat sessions, there are still plenty of ways to engage with our team:

- You can contact us by email, phone or post. Please see details for the Community Liaison Manager above.
- We are happy to arrange meetings for individuals or small groups to discuss any areas of interest and if this is something you would like us to facilitate, please contact us as soon as possible.
- We are happy to post out copies of this brochure, please contact the Community Liaison Manager to arrange this.
- Copies of this brochure can be made available in large print if required.

## Feedback

As part of the consultation exercise, we are seeking comments back from members of the public, statutory consultees and other key stakeholders.

We kindly request that all comments and feedback forms are received by **Friday 18th August 2023**. Further information, should you require it, is available on the project webpage or can be made available in printed format by contacting the Community Liaison Manager.

# Your feedback –Blarghour Wind Farm Connection Project

If you prefer, the same feedback form is available to complete online and can be found on the project webpage:  
[www.ssen-transmission.co.uk/projects/project-map/blarghour-wind-farm-connection-project](http://www.ssen-transmission.co.uk/projects/project-map/blarghour-wind-farm-connection-project)  
Please complete in **BLOCK CAPITALS**.

**Q1** Has the need for the Project been adequately explained?  
What other information would you consider useful at this stage?  
Yes  No  If no, please tell us how we could provide further explanation

**Q2** Has the approach taken to select only one alignment been adequately explained?  
Yes  No  If no, please tell us how we could provide further explanation

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

**Q4** Do you feel, on balance, that the selected alignment is the most appropriate for further consideration? Please provide an explanation of your answer.

**Q5** Do you have any other comments on the selected alignment?  
Please provide an explanation of your answer.





**Q6** Please use this box to provide any other feedback.

**Full name**

**Address**

**Telephone**

**Email**

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

If you would like your comments to remain anonymous 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:** Scottish and Southern Electricity Networks, 1 Waterloo St, Glasgow, G2 6AY

**Email:** [caitlin.quinn@sse.com](mailto:caitlin.quinn@sse.com)

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