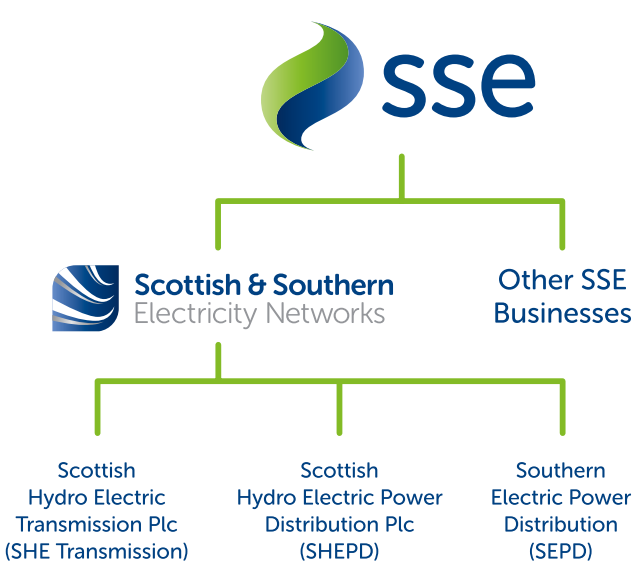
Scottish & Southern Electricity Networks

Who we are

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



In total we maintain about 5,000km 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 750m above sea level and up to 250km 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.

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.

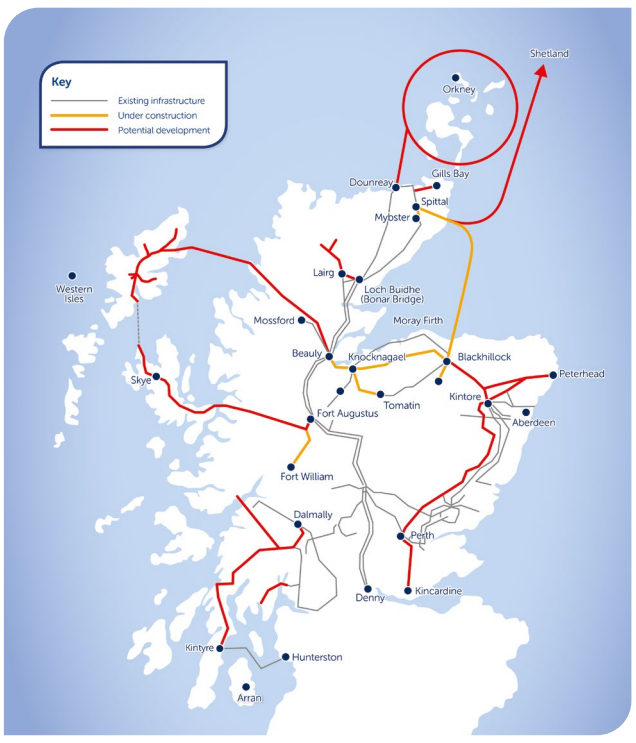
What is the difference between transmission and distribution?

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 plans.

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.

Overview of transmission projects



@ssencommunity

@ssencommunity

www.ssen-transmission.co.uk/projects/bhlaraidh-extension-windfarm-connection

Scottish & Southern Electricity Networks

Project need and overview

Project overview

The project is needed to connect the 100MW Bhlaraidh Extension windfarm to the 132kV busbars at the Fort Augustus substation. Under our Network Operators Licence, we are required to be efficient, co-ordinated and economic, whist whilst having the least possible impact on people and the environment.

To achieve this, a number of transmission connection options were considered against known and potential future backgrounds. As the background may change, it may be necessary to consider changes to the proposed network solution, both in scope and/or timing.

At this stage the connection solution comprises of a 132kV single circuit, double trident wood pole overhead line running approximately 17km.

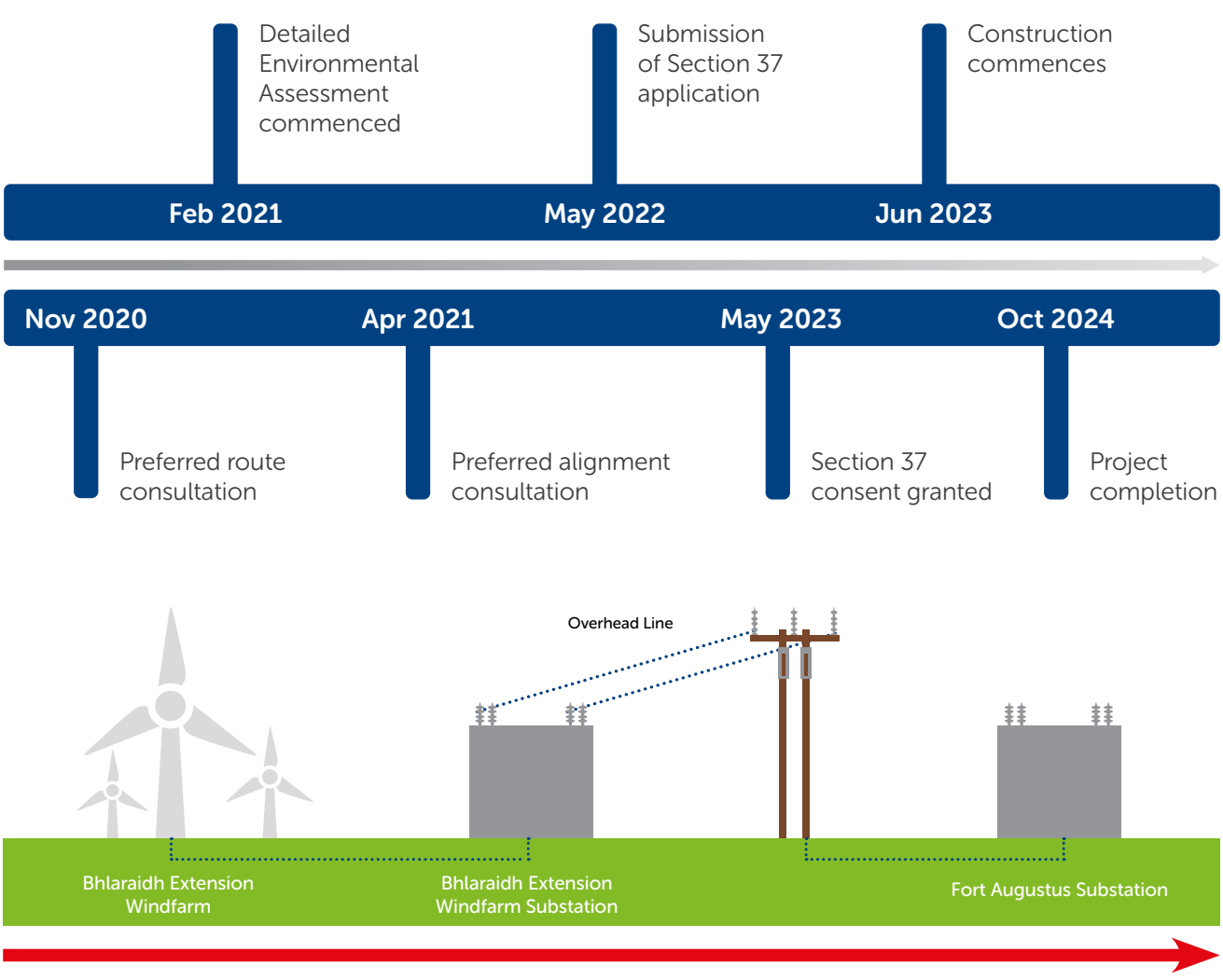
The final 500 metres (approximately) into Fort Augustus Substation will be by underground cable.

Main elements

This transmission connection will be known as the Bhlaraidh Extension Windfarm Connection consisting of:

- Single circuit double trident wood pole overhead line
- Access tracks
- Establish a new 132/33kV outdoor substation at Bhlaraidh Extension windfarm site
- Connection into the existing substation at Fort Augustus via approximately 500 metres of underground cable.

Project timeline



@ssencommunity

@ssencommunity

www.ssen-transmission.co.uk/projects/bhlaraidh-extension-windfarm-connection

Scottish & Southern Electricity Networks

Construction of an overhead wood pole line

A typical single trident overhead line is formed of a H pole, an example of this is shown below. The installation generally requires foundations of approximately 2.5 metres by 3.0 metres and to a depth of 2.0 metres. Access tracks are kept to a minimum wherever it is possible to help reduce the impact of the construction.

Helicopters may be used to support the construction of this overhead line by delivering materials or assisting with the stringing of conductors.

The picture below shows a typical helicopter delivery.

Construction of access tracks

Access tracks will be constructed where the terrain and ground conditions mean access cannot be achieved by using all-terrain vehicles. Access tracks will be constructed with imported and/or locally won material. It is not envisioned that access tracks will be retained after construction of the overhead line.

Use of Alternative Structures

This project plans to use Trident Wood H Pole structures for as much of the route as possible. However, there are some locations where the use of these structures is not feasible. When the line is located above 300m altitude the climactic loadings increase to a point where the span lengths between the wood pole structures become too short to be practicable. In these locations the project will look to use alternative structures.

Scottish & Southern Electricity Networks

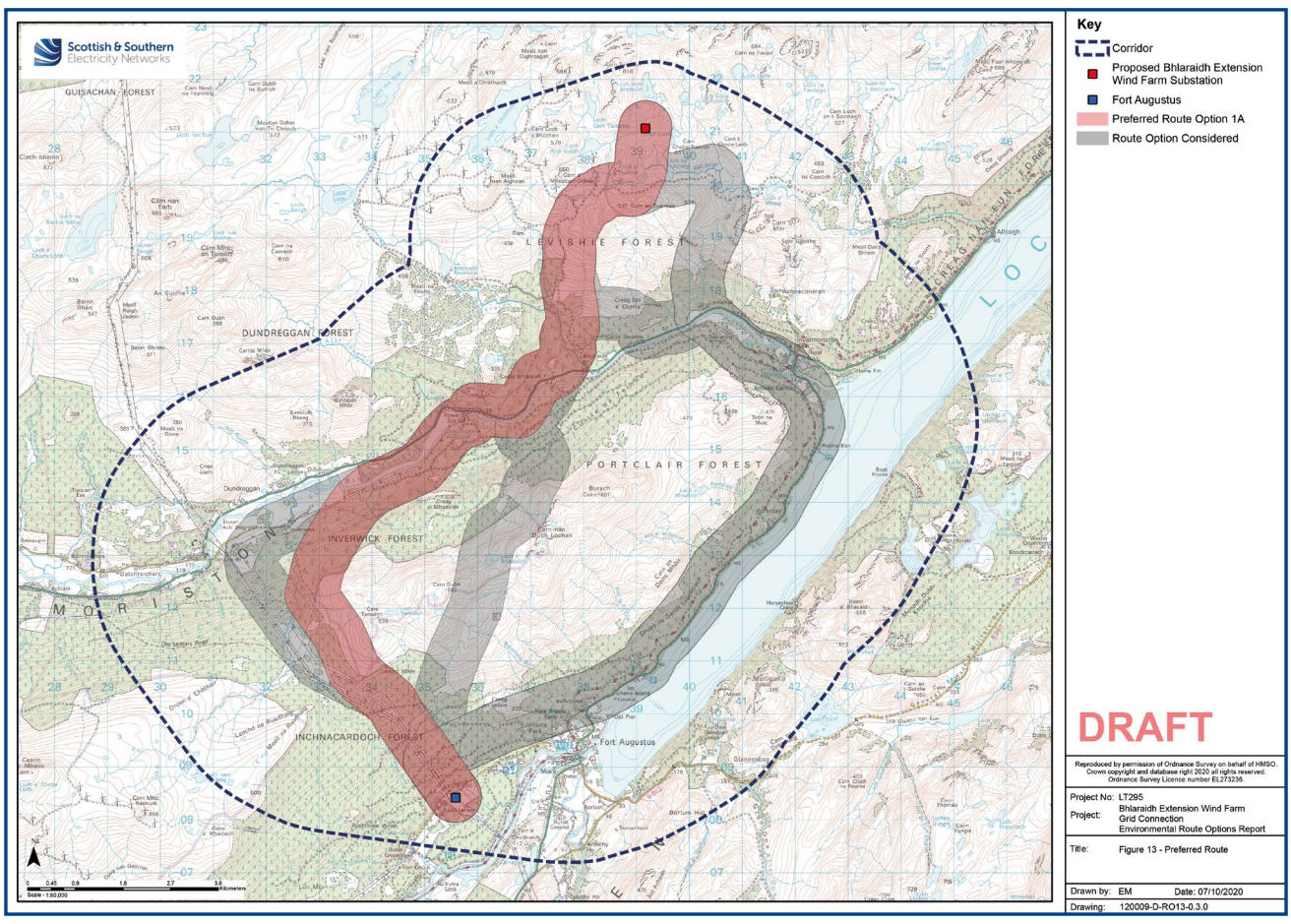
Preferred route

SHE Transmission will publish the Overhead Line Route Selection Consultation Document in November 2020.

The project is subject to a detailed routing process. This ensures the final route meets technical requirements, is cost effective, causes the least impact on the environment and least disturbance to those living, working or visiting the area. Once the start and end points of a route are chosen a selection of 1km wide routes are identified, the preferred option of these routes is then consulted on before a preferred alignment is developed and further consultation takes place.

This consultation seeks views from statutory authorities and other interested stakeholders on the approximate 1km wide route options identified.

The route options that have been considered are shown below.



SHE-Transmission have selected Route 1A as the preferred option. This option has fewer technical constraints and therefore the greatest potential to avoid and/or limit interactions with the environment and communities within it.

The information obtained from this initial consultation will be used by SHE Transmission to develop a preferred overhead line alignment, for which we will seek your opinion.

All consultation documentation is available from our project website:
www.ssen-transmission.co.uk/projects/bhlaraidh-extension-windfarm-connection

@ssencommunity

@ssencommunity

www.ssen-transmission.co.uk/projects/bhlaraidh-extension-windfarm-connection

Scottish & Southern Electricity Networks

Environment

Desk-based and high level site walkovers have been undertaken to gather data and understand the key environmental constraints and opportunities within the local area. This process has helped to identify the key environmental issues for this project to be landscape and visual amenity, ecology/ornithology, forestry, hydrology/hydrogeology, recreation and cultural heritage.

Following confirmation of the proposed route, further detailed studies and assessment work will be undertaken to narrow this down and identify a preferred alignment. The preferred alignment will be consulted on, feedback sought and incorporated where possible before the project progresses to the Environmental Impact Assessment (EIA) stage.

At this stage the development will go through EIA Screening and Scoping, culminating in an EIA Report being produced in line with The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017. The EIA Report will support the application for consent under Section 37 of the Electricity Act 1989. This is due for submission to Scottish Ministers in mid 2022.

Ecology/Ornithology

The River Moriston has been designated as a Special Area of Conservation (SAC). SAC's are internationally designated sites under the Habitats Directive.

The qualifying features of the River Moriston SAC include Atlantic salmon, freshwater pearl mussel, sea lamprey and otter.

Other areas of woodland and sensitive habitats are located throughout the route. Protected species such as otter, pine marten, badger and bat species will likely reside in these habitats. The woodland and scrub habitat throughout the area will support breeding bird species, whilst more wetland areas could provide habitats of value to breeding waders and wildfowl.

Landscape and Visual Amenity

The Loch Ness and Duntelchaig Special Landscape Area (SLA) includes the vast and linear Loch Ness and the bounding hill slopes on the loch's western and eastern shores. Several 'Special Qualities' of the SLA are identified by The Highland Council relating to the dramatic landform of the Great Glen, with steep-sided wooded slopes; the contrasting remote moorland plateau of upland lochs and rocky knolls; and the historic features and myths associated with the loch and its environs.

Cultural Heritage

The local area comprises a number of culturally important sites and buildings. These include the Dundreggan Farm Motte, the Caledonian Canal and the Corrieyairack pass Military Road Scheduled Monuments and Category A Listed Buildings including the Glenmoriston, Torgoyle Bridge and Fort Augustus Abbey Church. There are also a range of non-designated assets of archaeological and cultural heritage interest.

Forestry

Forestry is a common land use within the local area, with a number of productive conifer plantations on a fell and restock cycle. Many of these plantations form part of the National Forest Estate and are managed by the Scottish Government's agency Forestry and Land Scotland. Private woodland, comprising both a mix of conifer and mixed broadleaf woodland, also exist throughout the area. Much of the woodland throughout the Corridor is categorised as Ancient Woodland.

Scottish & Southern Electricity Networks

What happens now and how do I have my say?

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

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 proposed 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 proposed route?
- Following review of the provided information, how would you describe your understanding of the Bhlaraidh Extension Wind Farm Connection project?
- Overall how do you feel about the Bhlaraidh Extension Wind Farm Connection project?

Comments

Your views and comments can be provided to the project team by completing a feedback form or by writing to Lisa Marchi, Community Liaison Manager. We will be seeking feedback from the members of the public and Statutory Bodies until **11 December 2020.**

All received feedback will be assessed and the proposed options adapted where necessary.

Community Liaison Manager, Lisa Marchi

lisa.marchi@sse.com

01463 728 072

07825 015 507

Lisa Marchi
Scottish and Southern Electricity Networks,
10 Henderson Road,
Inverness, IV1 1SN

Additional information

Information will also be made available via the project webpage and social media channels:

Project Website:

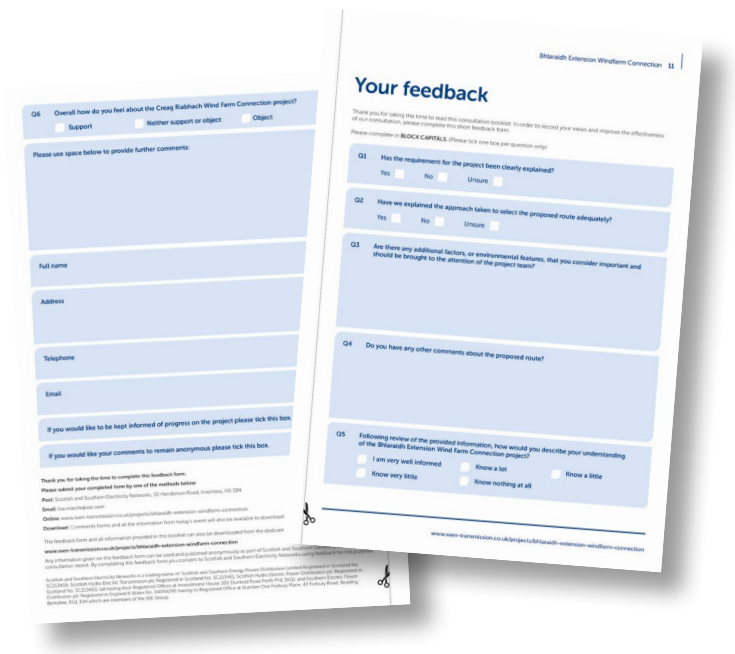
www.ssen-transmission.co.uk/projects/bhlaraidh-extension-windfarm-connection

Follow us on Twitter:

@ssencommunity

Follow us on Facebook:

@ssencommunity



@ssencommunity

@ssencommunity

www.ssen-transmission.co.uk/projects/bhlaraidh-extension-windfarm-connection