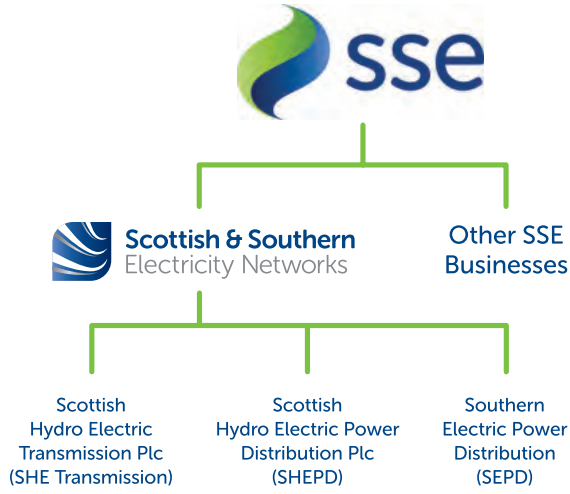
Scottish & Southern Electricity Networks

TRANSMISSION

APPENDIX C (continued)

Who we are

We are Scottish and Southern Electricity Networks, operating under licence as Scottish Hydro Electric Transmission plc 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.

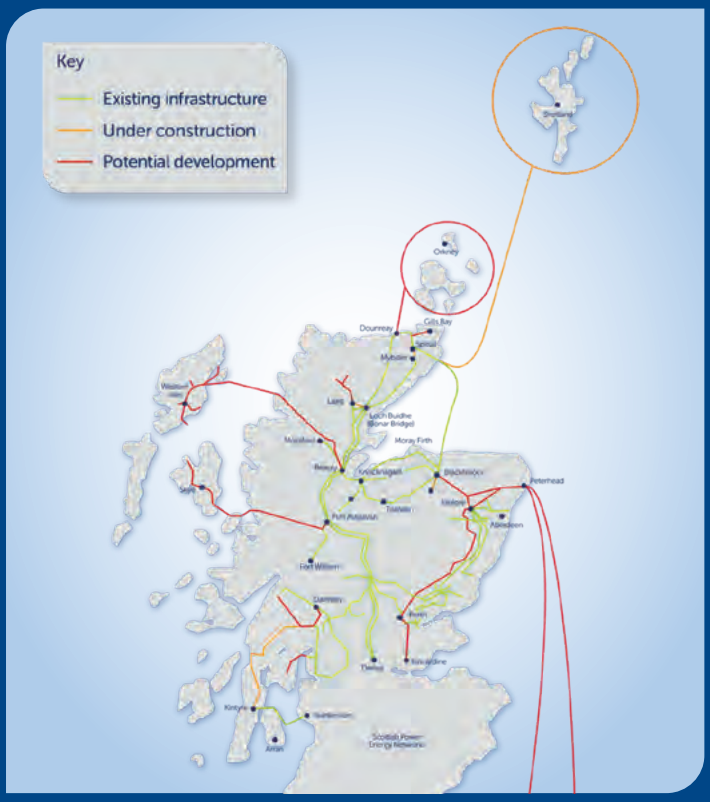
What is the difference between Transmission and Distribution?

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. The 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



Project need and overview

Project overview

The existing 132kV overhead line (OHL) runs for approximately 58km between Harris and Stornoway and due to its location, the line has been susceptible to severe storm damage, with high winds affecting the region, requiring ongoing maintenance work and monitoring. Therefore we are now proposing to upgrade the network in the area, to improve network reliability and main security of supply of electricity by replacing the existing line and constructing a new overhead line.

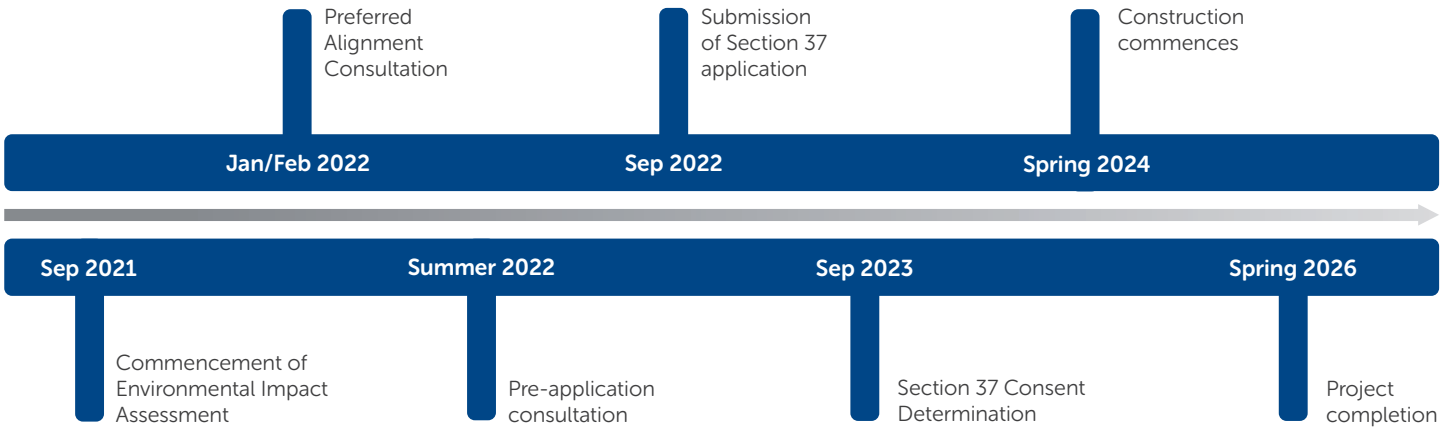
The project is looking to construct an offline 132kV OHL wood pole trident line between Harris Grid Supply Point and Stornoway Grid Supply Point, replacing the existing single pole trident design with a new "H" Pole trident wood pole line.

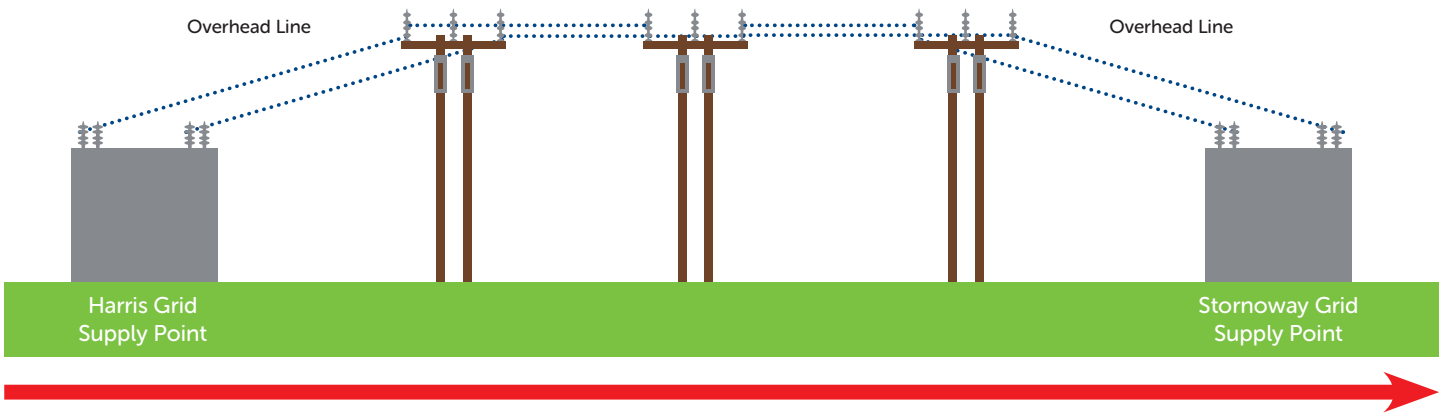
Main elements

- Single circuit trident double wood pole overhead line
- Access tracks
- Dismantling of existing wood pole circuit
- Works on existing Distribution lines in proximity to new line

Project timeline

Current forecasted programme subject to change





Construction of an overhead wood pole line

A typical H wood pole installation generally requires foundations of approximately 2.5 metres by 3.0 metres and to a depth of around 2.0 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 below 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.

Above is a typical example of an angle wood pole which requires additional stays. Please note the stays will not be on the non-angle poles.

Construction of access tracks

Access tracks will only be constructed where access by all-terrain vehicles cannot cope with the conditions.

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.

Preferred Route

Selection of the Preferred Route

There are two connection points which have been identified as part of this project. The first one is at Harris grid supply substation which is located just south of Tarbert, Harris. The second is at Stornoway substation on Lewis.

Given the constraints of the Island environment in scale, the extent of challenging physical environs and the extent of environmental designations, combined with the requirement to replace existing infrastructure.

One viable route has been identified for the whole connection based on the corridor previously consulted on. Alignment will then be undertaken within this route. The route still follows the existing overhead line which this project is set to replace.

This largely follows the A859 from Harris substation just south of Tarbert and heads north along the roadside to Stornoway substation in Lewis. This is the shortest route which offers a viable engineering solution for the new overhead line.

All consultation documentation is available from our project website:
www.ssen-transmission.co.uk/projects/harris-stornoway-132kv-ohl

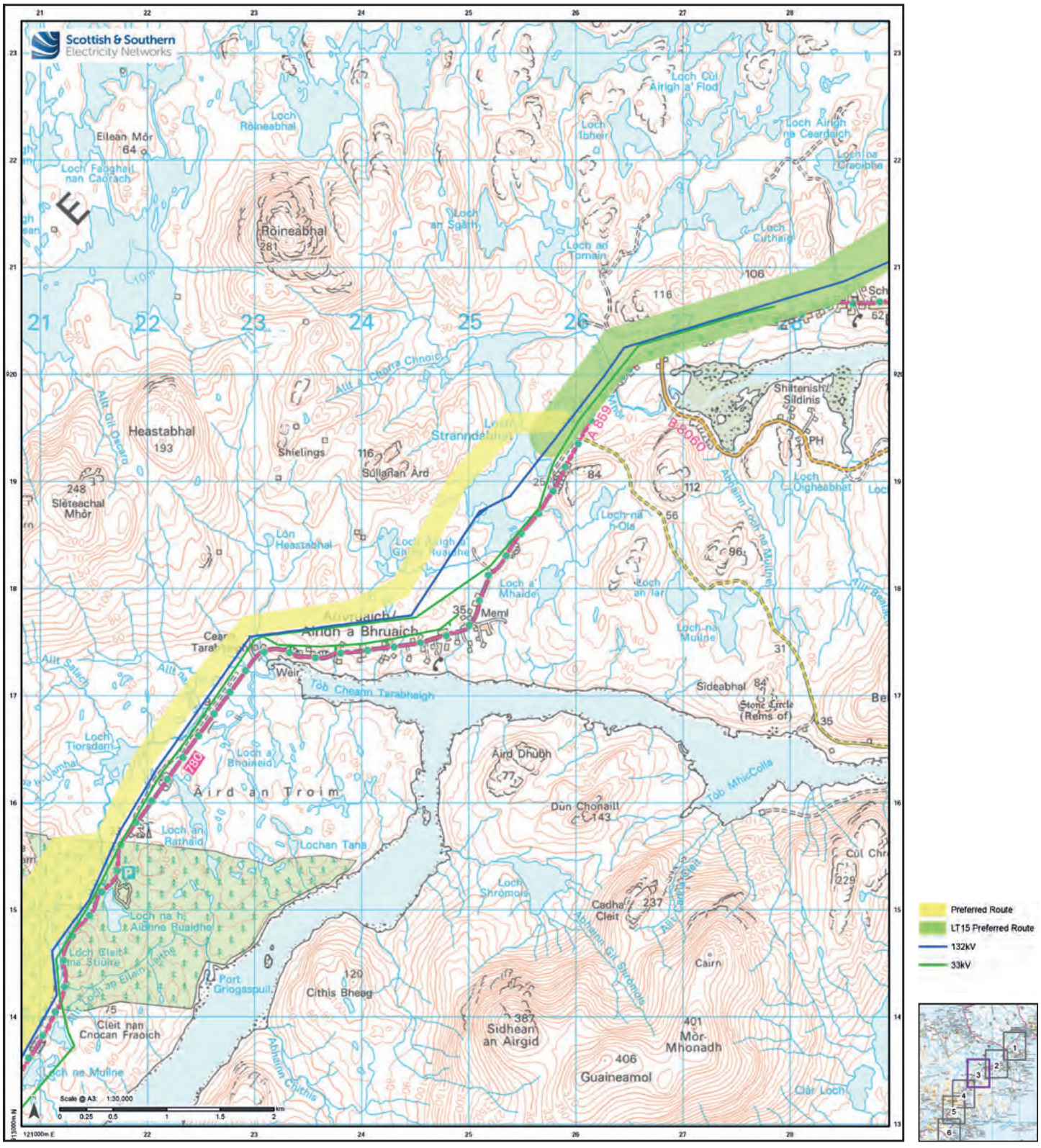
Preferred Route

Preferred Route 1 of 6

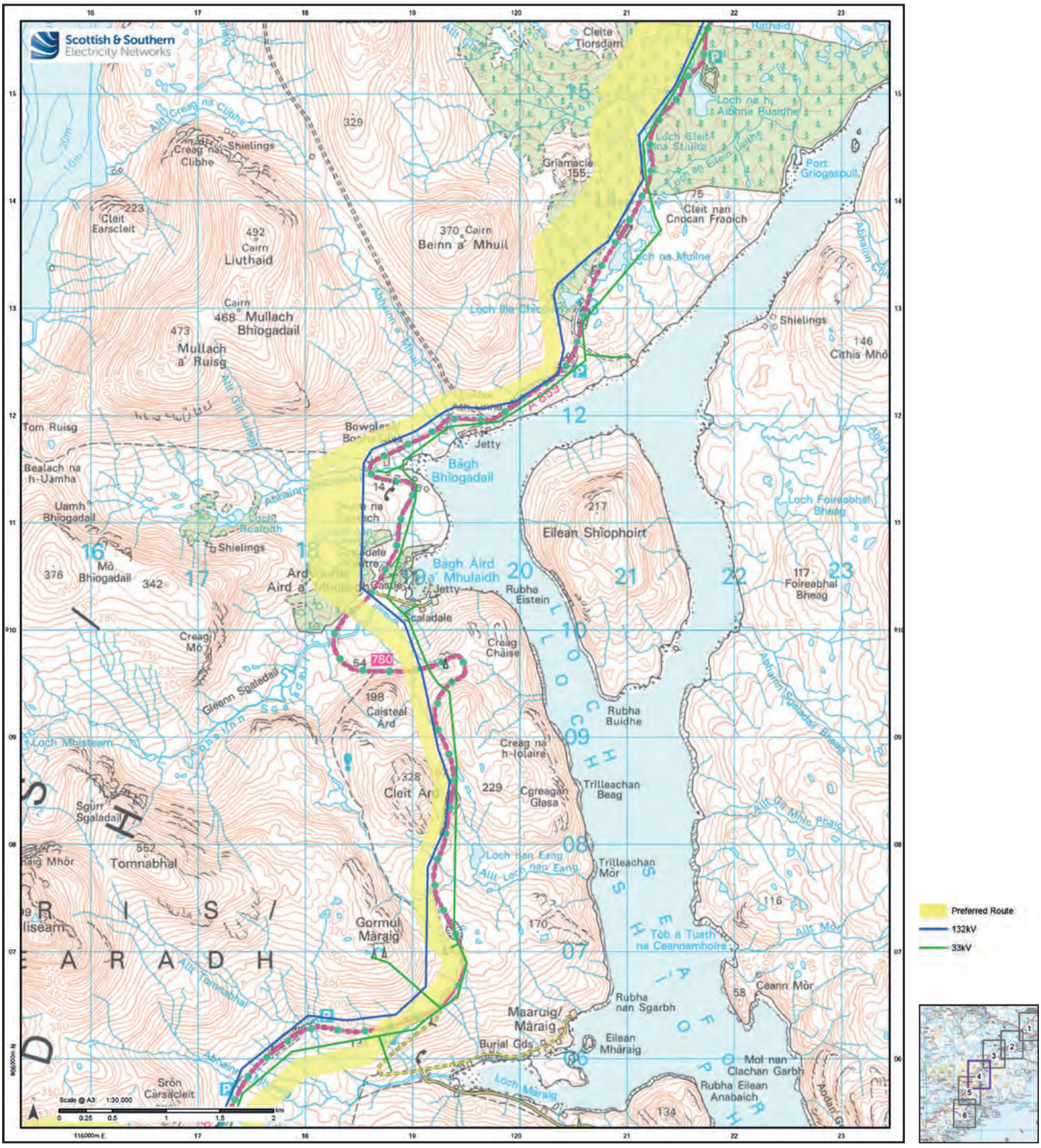
Preferred Route 2 of 6

Preferred Route

Preferred Route 3 of 6



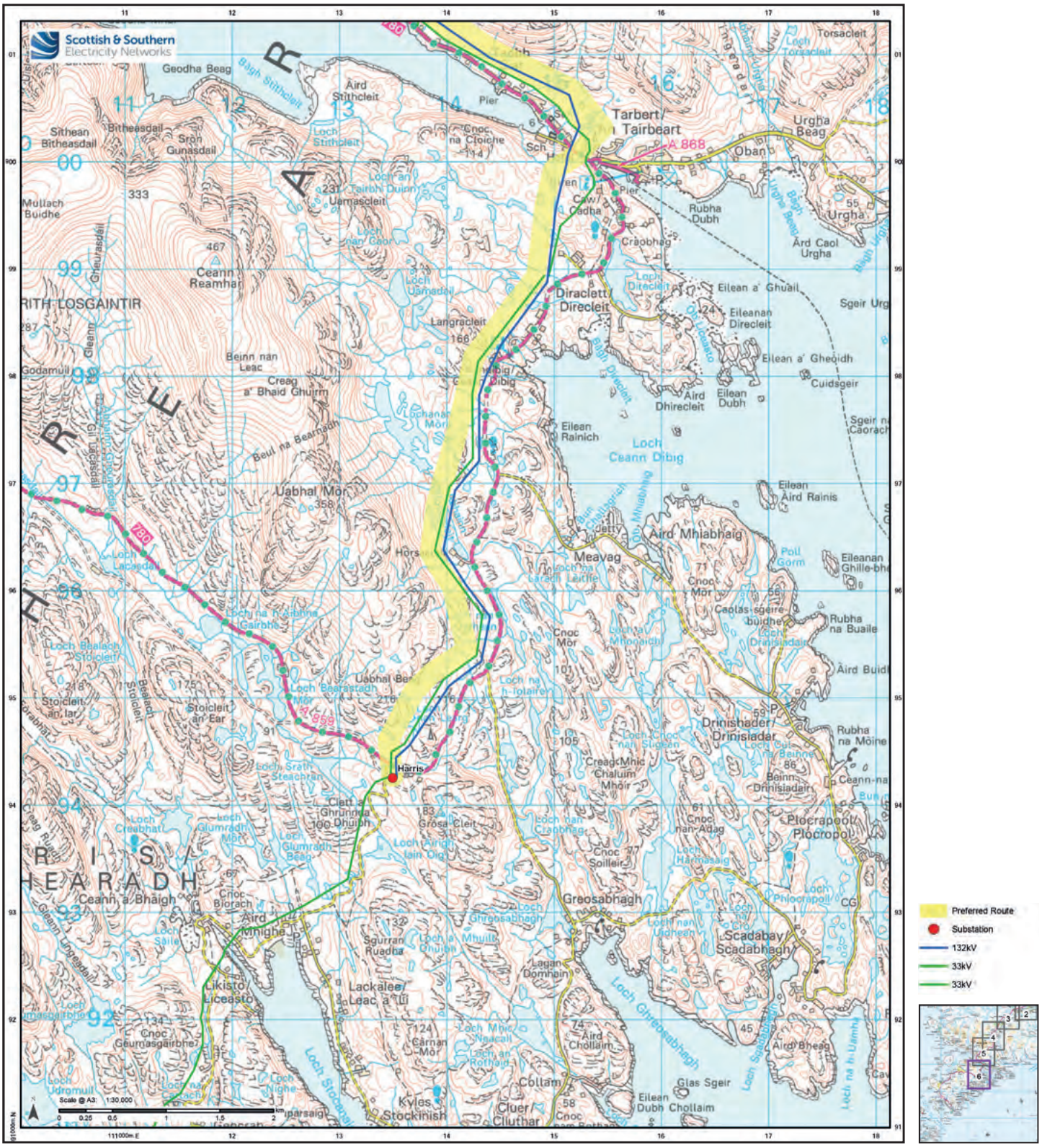
Preferred Route 4 of 6



Preferred Route

Preferred Route 5 of 6

Preferred Route 6 of 6



Constraints

Environment

Environmental assessments and site surveys will be undertaken as we move through the stages of routing to final alignment and consenting. This includes assessing the landscape and visual amenity, ecology/habitats, ornithology, geology/hydrogeology, hydrology, and cultural heritage of the preferred route. A full Environmental Impact Assessment will likely be required as part of the Section 37 consent application.

Ecology/Habitats/Ornithology

The selected route is likely to have the potential to encounter protected species and sensitive habitats within the project area. It has however been selected to avoid many of the environmental designations on Lewis and Harris.

The project will assess the risk to species and habitats as it moves through the alignment stage, aiming to develop an alignment with the least risk to the environment overall.

The OHL replacement requires over one years' worth of bird surveys; these began in March 2021 and will continue into Spring 2022. This data set will be invaluable for informing the final alignment and any mitigation required in consultation with Nature Scot.

Landscape and Visual Amenity

The project is to construct and operate a new 132kV Trident woodpole overhead line, whilst removing the existing. The overhead line routing process will seek to position the new overhead line in a location that minimises the effect on landscape and visual amenity. The proposed route currently follows the existing 132kV line.

Cultural Heritage

Scheduled and non-scheduled cultural heritage features will be mapped and risk assessed through the stages of routing.

The project works will be designed and constructed to ensure these features are avoided, where possible.

Where this is not possible further site assessments will be conducted in consultation with the planning authority.

Geology/Hydrogeology

Peatland habitats have been identified throughout the area. and careful selection of the overhead line alignment and access points will been undertaken to minimise effects as far as possible.

A peat management plan will be developed and implemented during construction.

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:

- Have we adequately explained the methodology undertaken to assess the preferred route?
- Do you feel SSEN Transmission have given enough consideration to potential impacts on the environment that this project may have?
- Are there any additional factors, issues or concerns which you wish to bring to the attention of the Project Team regarding our proposal?
- Following your review of the information displayed today, how would you rate your information of the Harris – Stornoway 132kV overhead line replacement works?
- Is there anything else you would like to highlight to the team about the project?

Comments

Your views and comments can be provided to the project team by completing the feedback form or by writing to our Community Liaison Manager. All feedback received will be assessed and the proposed options adapted where necessary.

Feedback

We will be seeking feedback from members of the public on this exhibition until Friday 15th October 2021.

Feedback is welcomed throughout the development of the project. To provide comments on the proposal or to gain further information on the project, visit our virtual event or contact our Community Liaison Manager.

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/harris-stornoway-132kv-ohl

Follow us on Twitter:
@ssencommunity

Follow us on Facebook:
@ssencommunity

Your 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 project information provided explained the need for the Harris – Stornoway 132kV overhead line replacement works?**

Yes ☐ No ☐ Unsure ☐

Q2 **Have we adequately explained the methodology undertaken to assess the preferred route?**

Yes ☐ No ☐ Unsure ☐

Q3 **Do you feel SSEN Transmission have given enough consideration to potential impacts on the environment that this project may have? Comments:**

Q4 **Are there any additional factors, issues or concerns which you wish to bring to the attention of the Project Team regarding our proposal? Comments:**

Q5 **Following your review of the information displayed today, how would you rate your information of the Harris – Stornoway 132kV overhead line replacement works?**

☐ I am very well informed ☐ Know a lot ☐ Know a little

☐ Know very little ☐ Know nothing at all

Q6 Is there anything else you would like to highlight to the team about the project? Comments:

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, 10 Henderson Road, Inverness, IV1 1SN

Email: lisa.marchi@sse.com

Online: www.ssen-transmission.co.uk/projects/harris-stornoway-132kv-ohl

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

The feedback form and all information provided in this booklet can also be downloaded from the dedicated website:

www.ssen-transmission.co.uk/projects/harris-stornoway-132kv-ohl

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.