Scottish & Southern Electricity Networks

TRANSMISSION

APPENDIX E: JUNE 2022 CONSULTATION MATERIAL

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Harris - Stornoway 132kV Overhead Line

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

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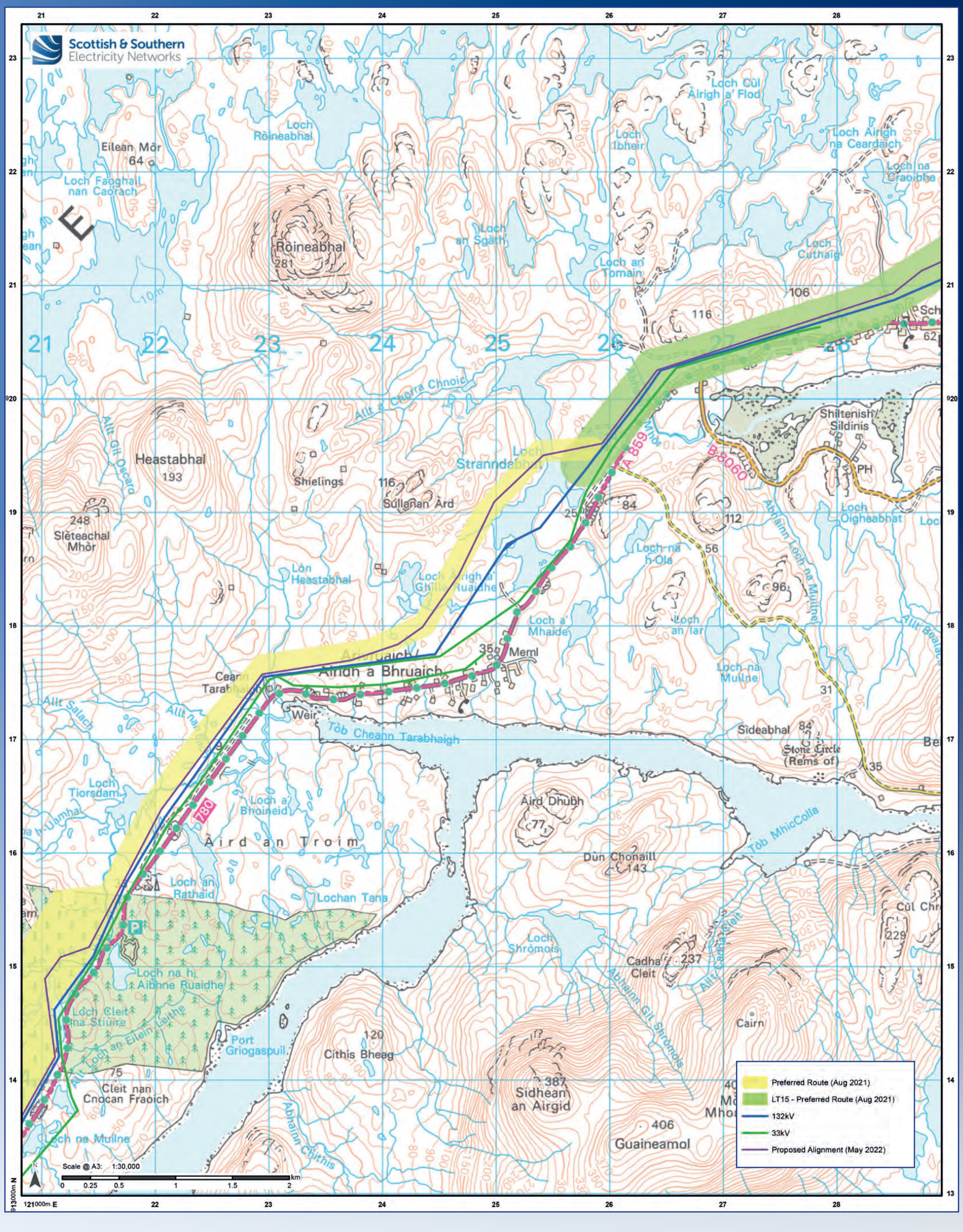

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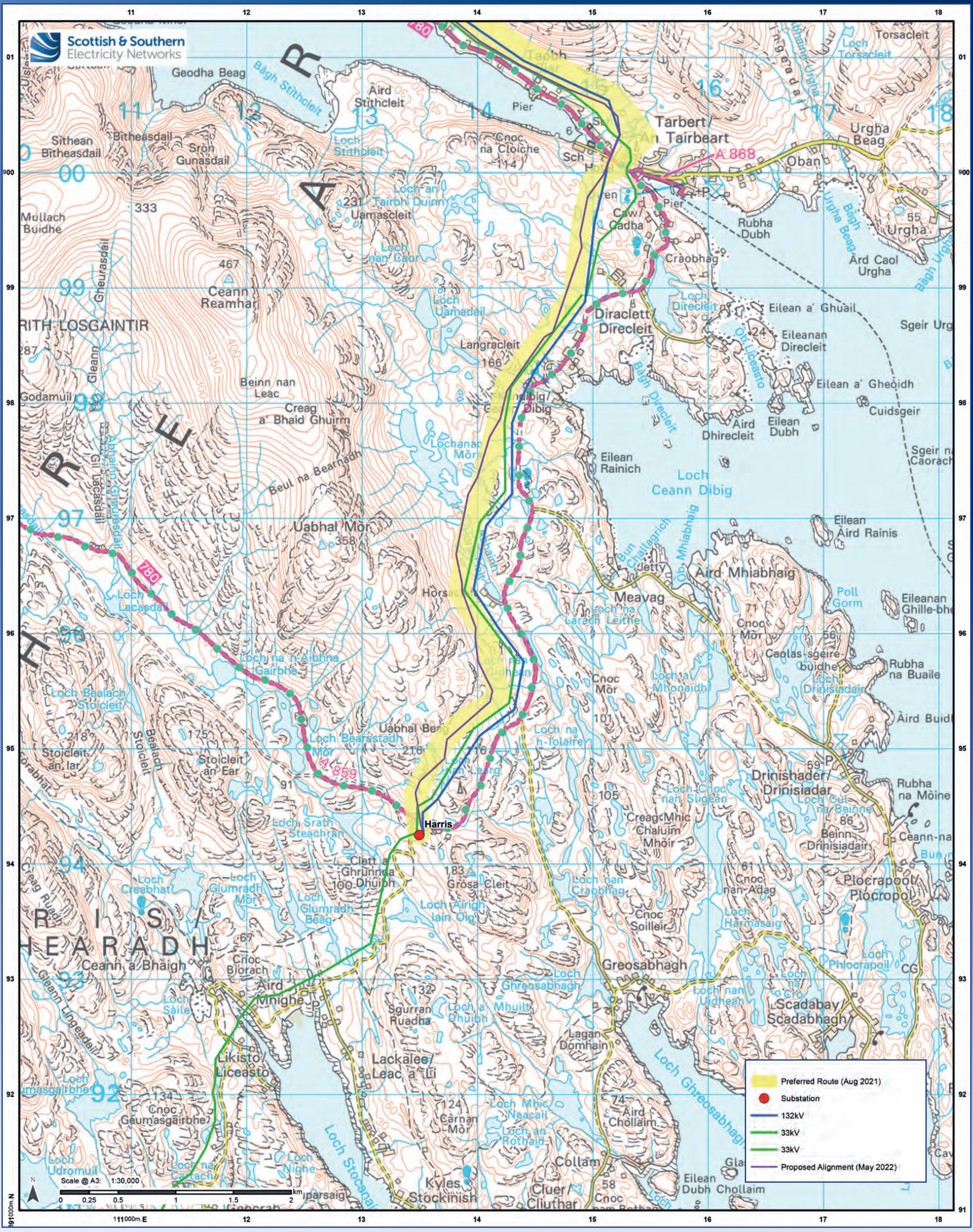
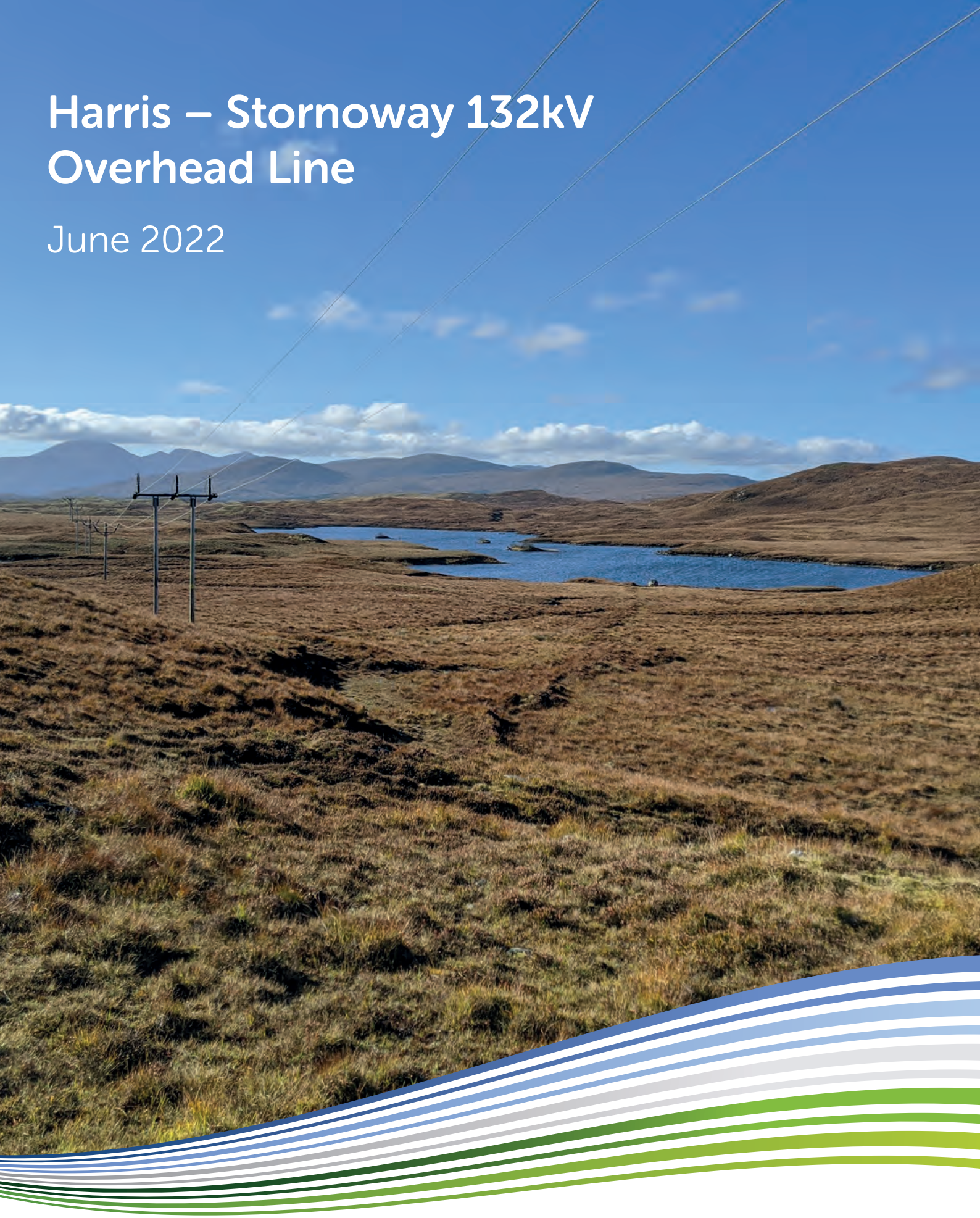


Harris – Stornoway 132kV Overhead Line

June 2022



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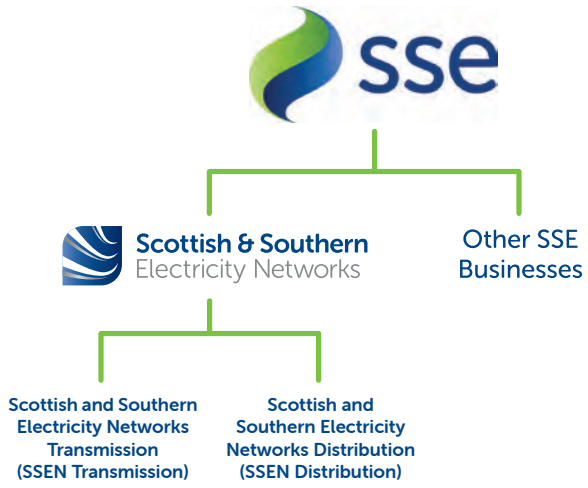
Who we are

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.



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

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

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 substation, 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.
- Temporary access tracks.
- Works on existing Distribution OHLs in proximity to new 132kV OHL.
- Full dismantling of existing wood pole circuit once new OHL circuit is live.

Project timeline

Summer 2022

- **Pre-application consultation.**

Late Autumn 2022

- **Submission of Section 37 application.**

Late Autumn 2023

- **Section 37 Consent Determination.**

Spring 2024

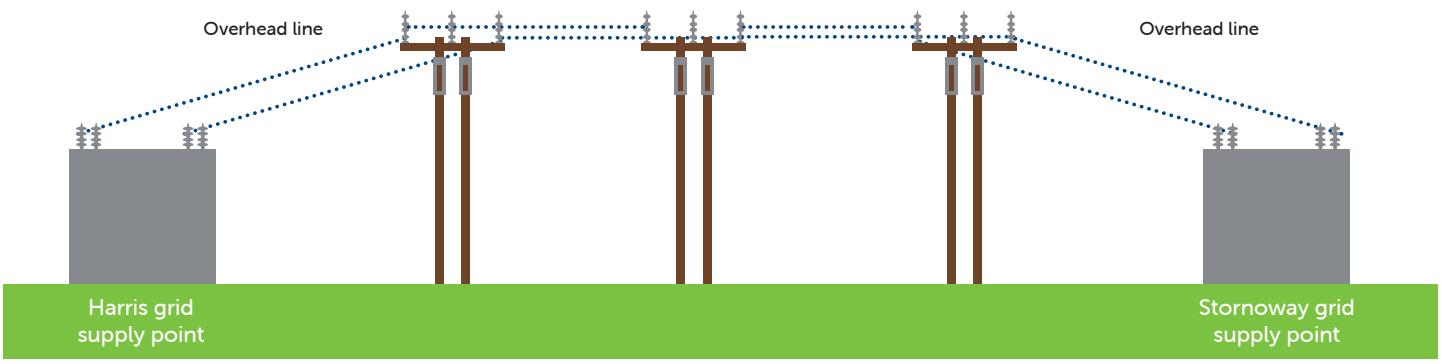
- **Construction commences.**

Summer 2026

- **Completion of new OHL.**

Autumn 2026

- **Complete removal of remaining OHL.**



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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.

Key engineering considerations

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.

Construction of access tracks

Access tracks will only be constructed where access by all-terrain vehicles cannot cope with the conditions or where bog mats as shown in the image below are not suitable. 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 alignment

Selection of the preferred alignment

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.

A viable alignment has been identified for the whole connection based on the corridor and route previously consulted on.

The alignment 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

Individual OHL maps

Individual OHL maps

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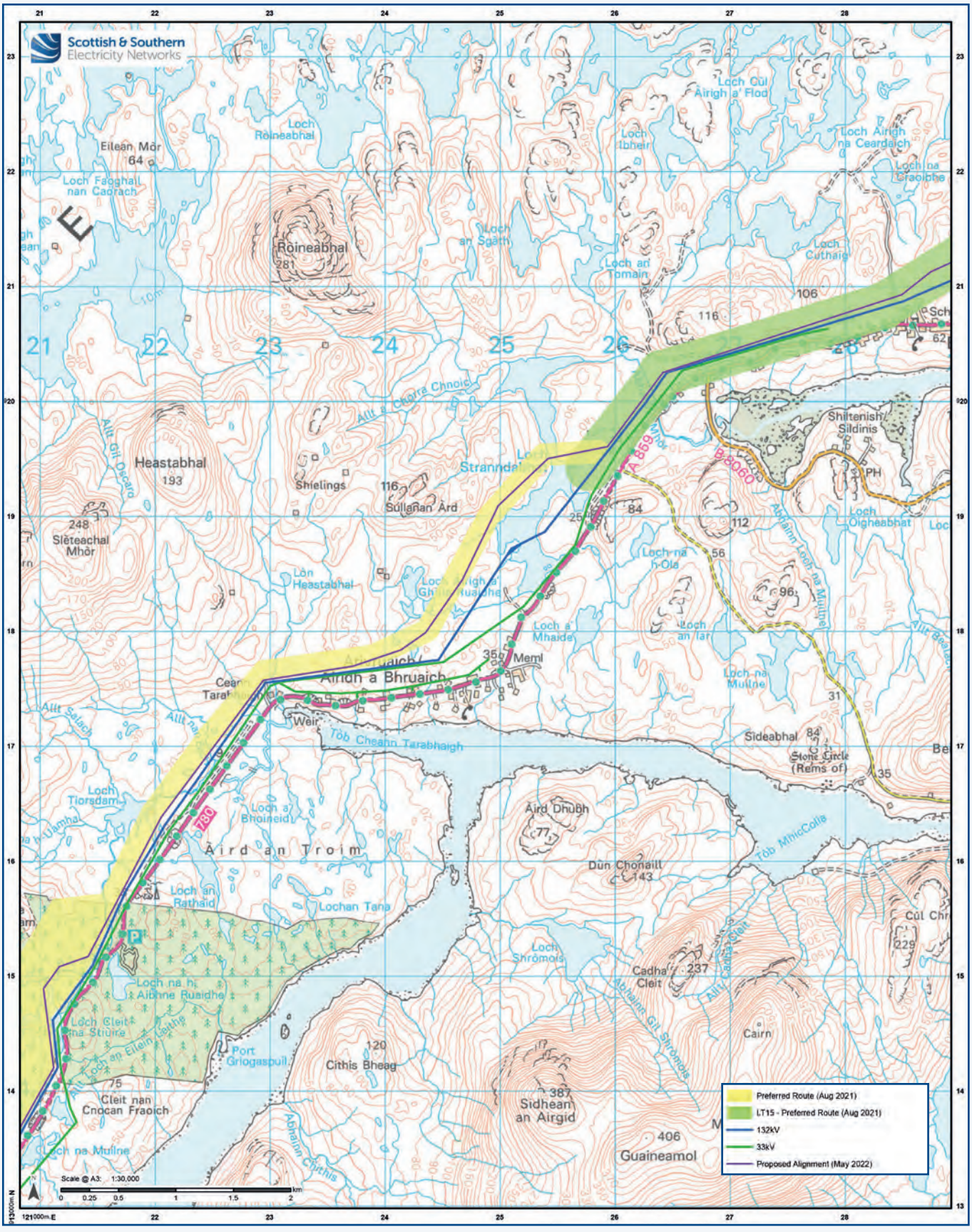
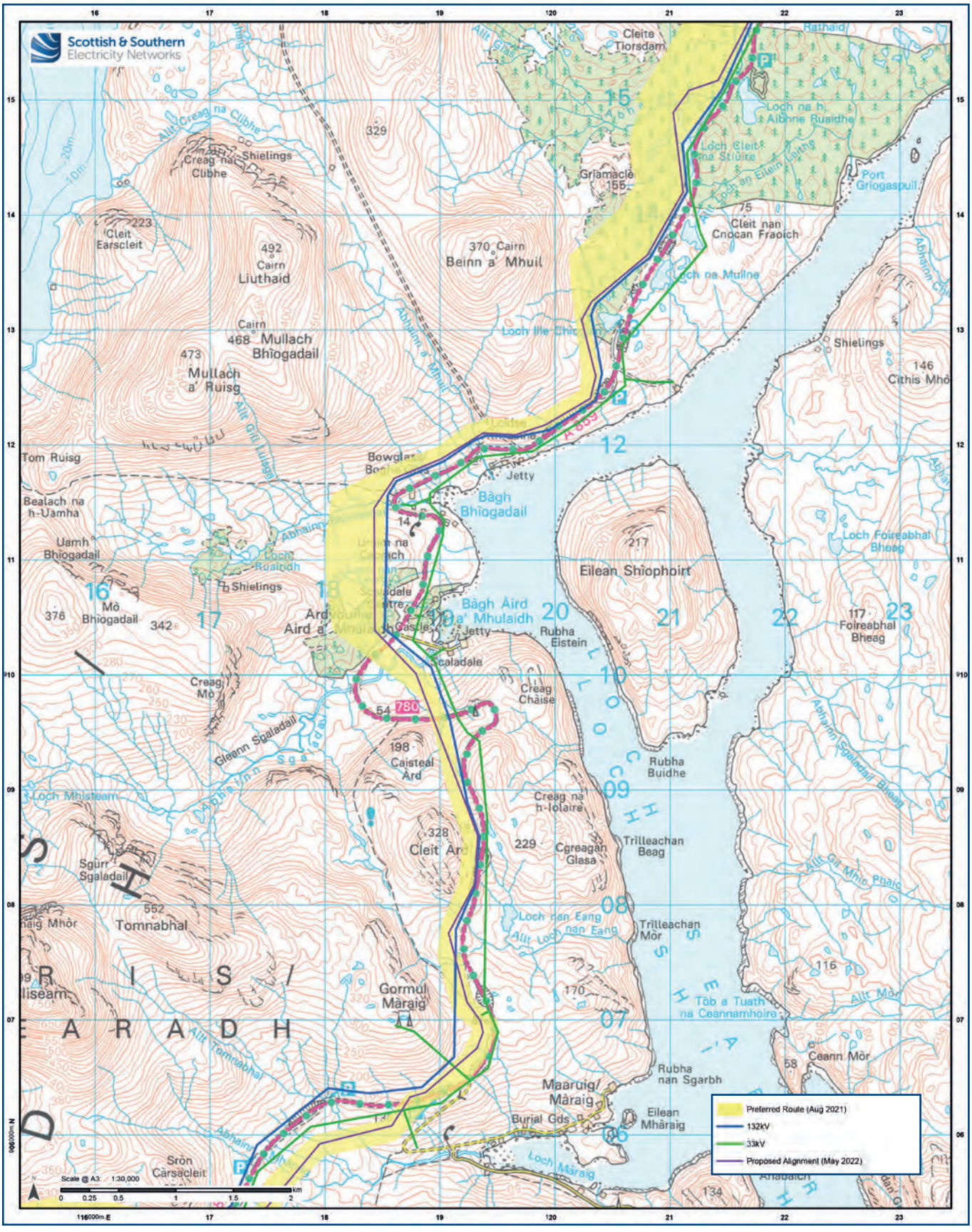
Individual OHL maps



Individual OHL maps



Individual OHL maps

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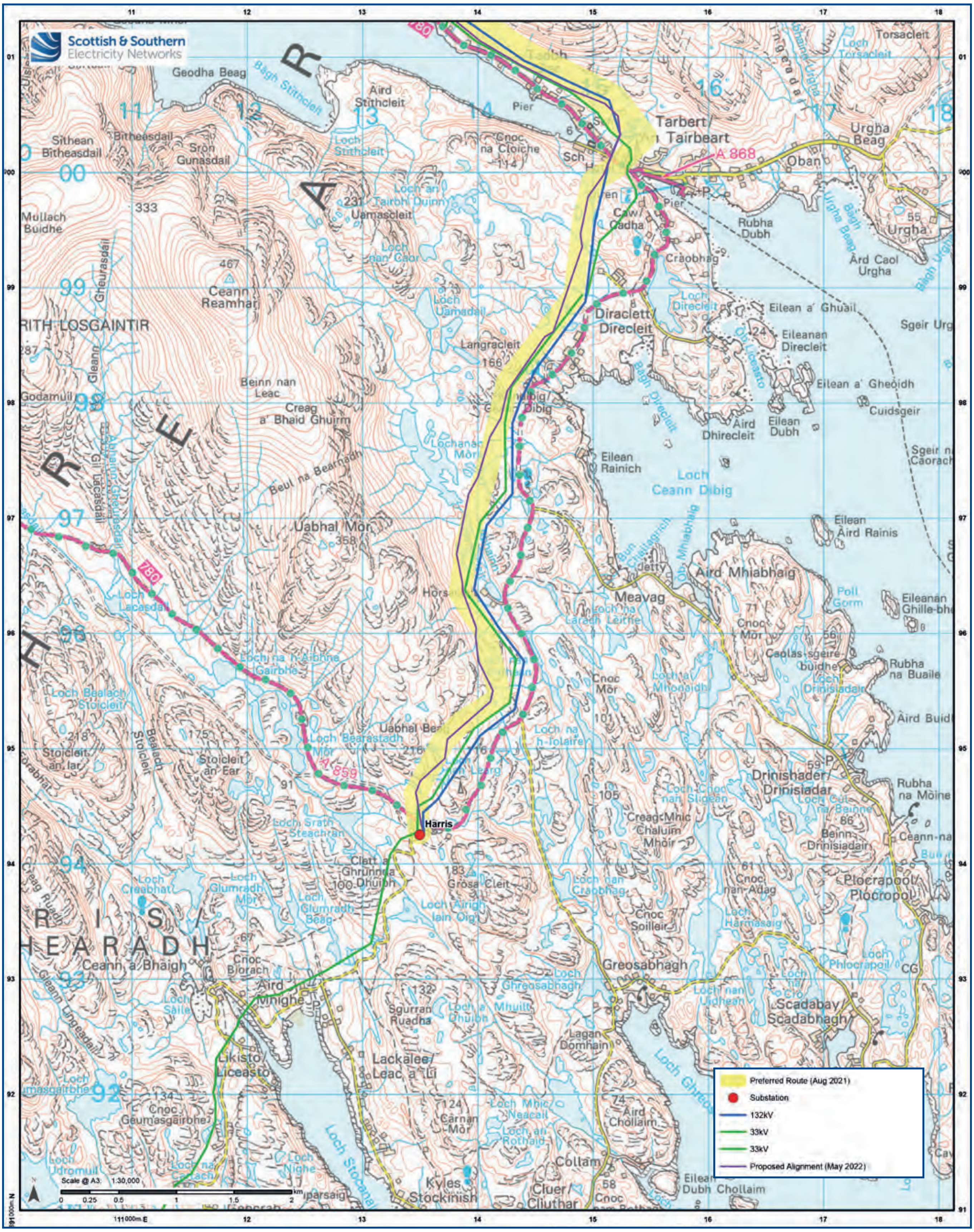
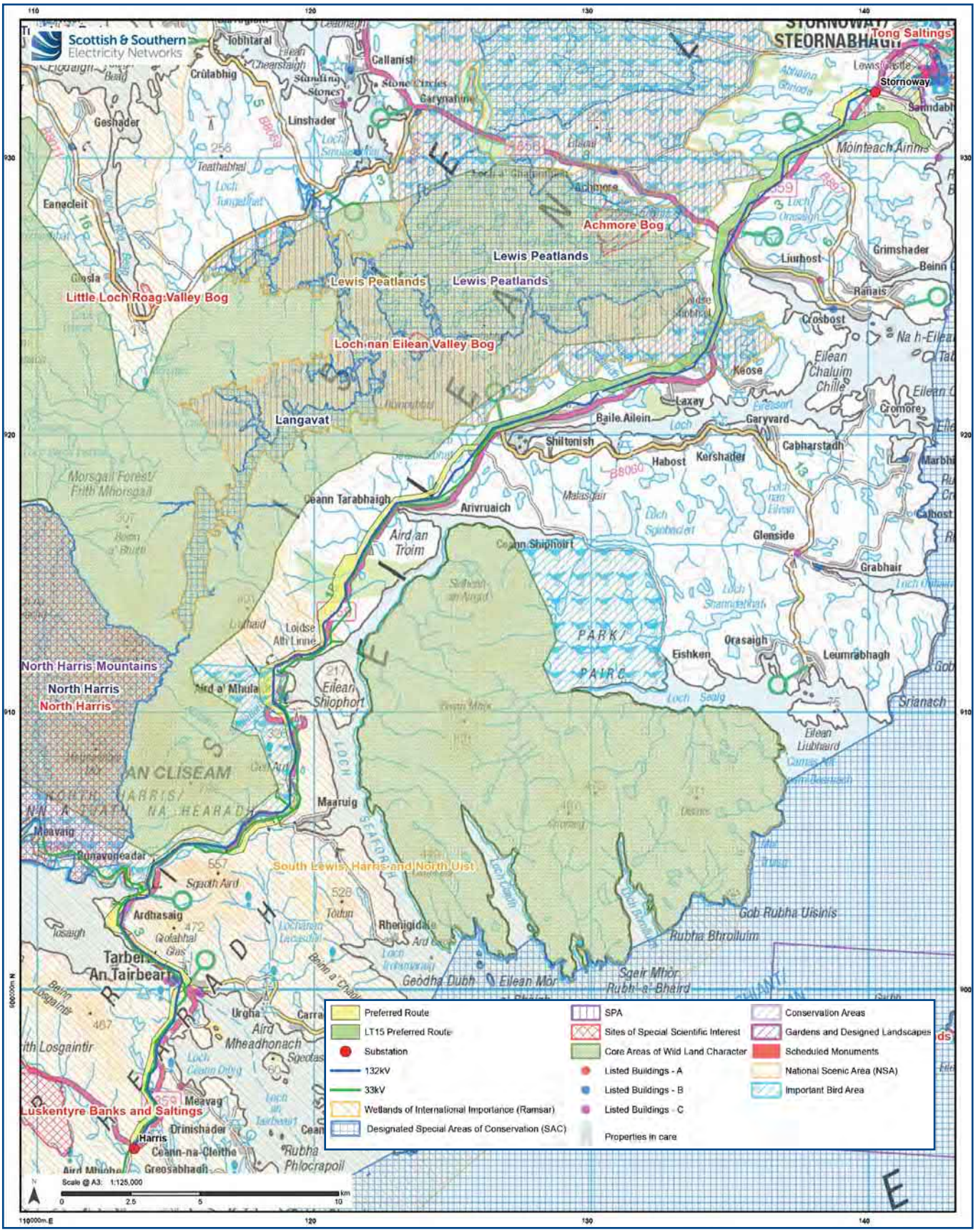


Constraints



Environment

Now the OHL replacement project is at proposed alignment, the environmental assessments and site surveys we undertake going forward are focussed on those required for an Environmental Impact Assessment (EIA), which is required to support the Energy Consents Unit (ECU) s37 Consent. The EIA will include assessment of the landscape and visual amenity, ecology, habitats, ornithology, geology/hydrogeology, hydrology, and cultural heritage.

Ecology/habitats/ornithology

The alignment selected looks to minimise the potential to impact protected species and sensitive habitats along its length. It has been selected to avoid as much as possible the many environmental designations on Lewis and Harris.

Habitat and protected species surveys of the entire route have been undertaken and mapped. This information will enable us to micro route or micro site poles to avoid sensitivities where possible and will inform any mitigation required during construction of the line. The project will continue through the EIA process to consult and assess the risk to species and habitats.

The OHL replacement required over one years' worth of bird surveys. These began in March 2021 and completed May 2022. This data set is invaluable and in consultation with Nature Scot will inform decisions made on any further micro routing and or mitigation required on sections of the line.

Geology/hydrology/ hydrogeology

Peatland habitats have been identified throughout the length of the proposed line. There are also numerous rivers, burns and lochs. Habitat mapping is complete and further peat surveys will be delivered to further inform pole locations, access and construction methodologies, to minimise impact on these habitats.

A Peat Management Plan will be developed and implemented during construction. Pollution Prevention Plans will also be prepared, to map out the measures to protect the water environment.

Landscape and visual amenity

The overhead line routing process positioned the new overhead line in a location that aimed to minimise the effect on landscape and visual amenity. The proposed alignment for the majority follows the existing 132kV line, deviating only in sections where constraints were encountered.

A full Landscape and Visual Impact Assessment (LVIA) will be undertaken and included in the EIA.

Cultural heritage

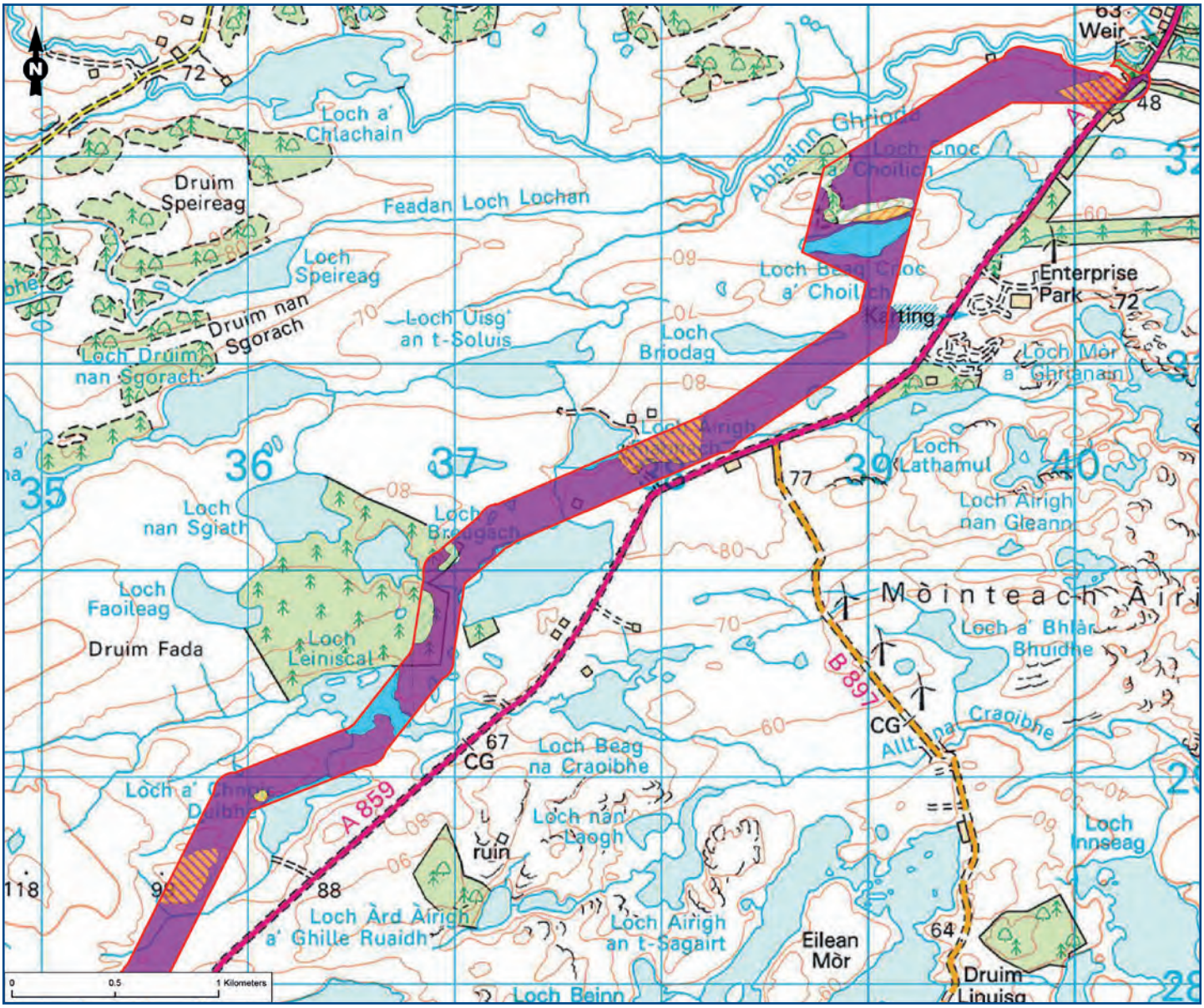
Scheduled & non-scheduled heritage features have been mapped and the risk to these features will be assessed through the EIA process in consultation with CnES and Historic Environment Scotland (HES).

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 and Historic Environment Scotland (HES) and a mitigation plan with be developed.

Environment

Habitat mapping



Legend

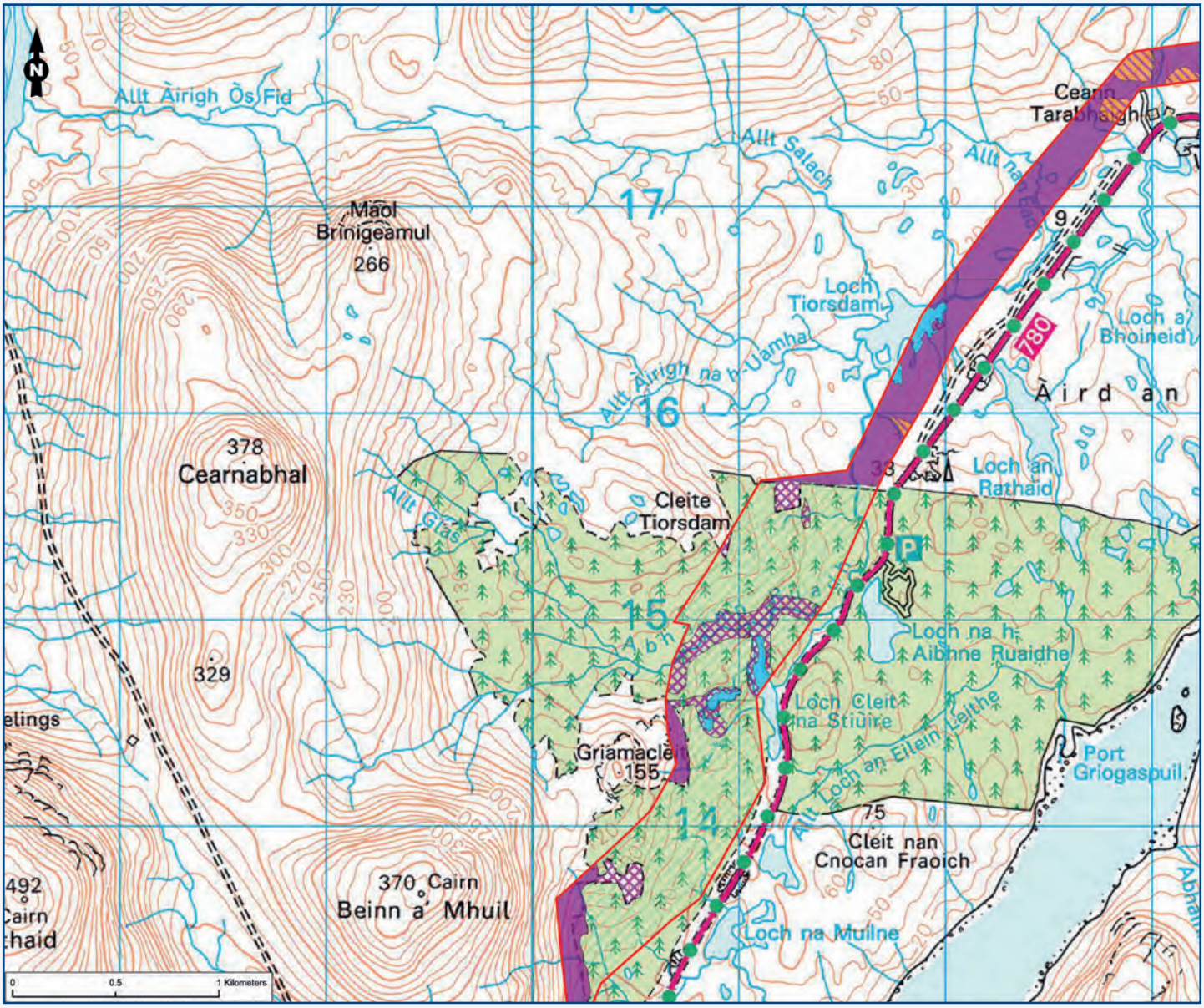
- Site Boundary

Phase 1 Code

- A1.2.2 Coniferous woodland - plantation
- A1.3.1 Mixed woodland - semi-natural
- B5 Marsh/marshy grassland
- D1.1 Dry dwarf shrub heath - acid
- D5 Dry heath/acid grassland
- E1.6.1 Blanket sphagnum bog
- G1 Standing water

Environment

Habitat mapping



Legend

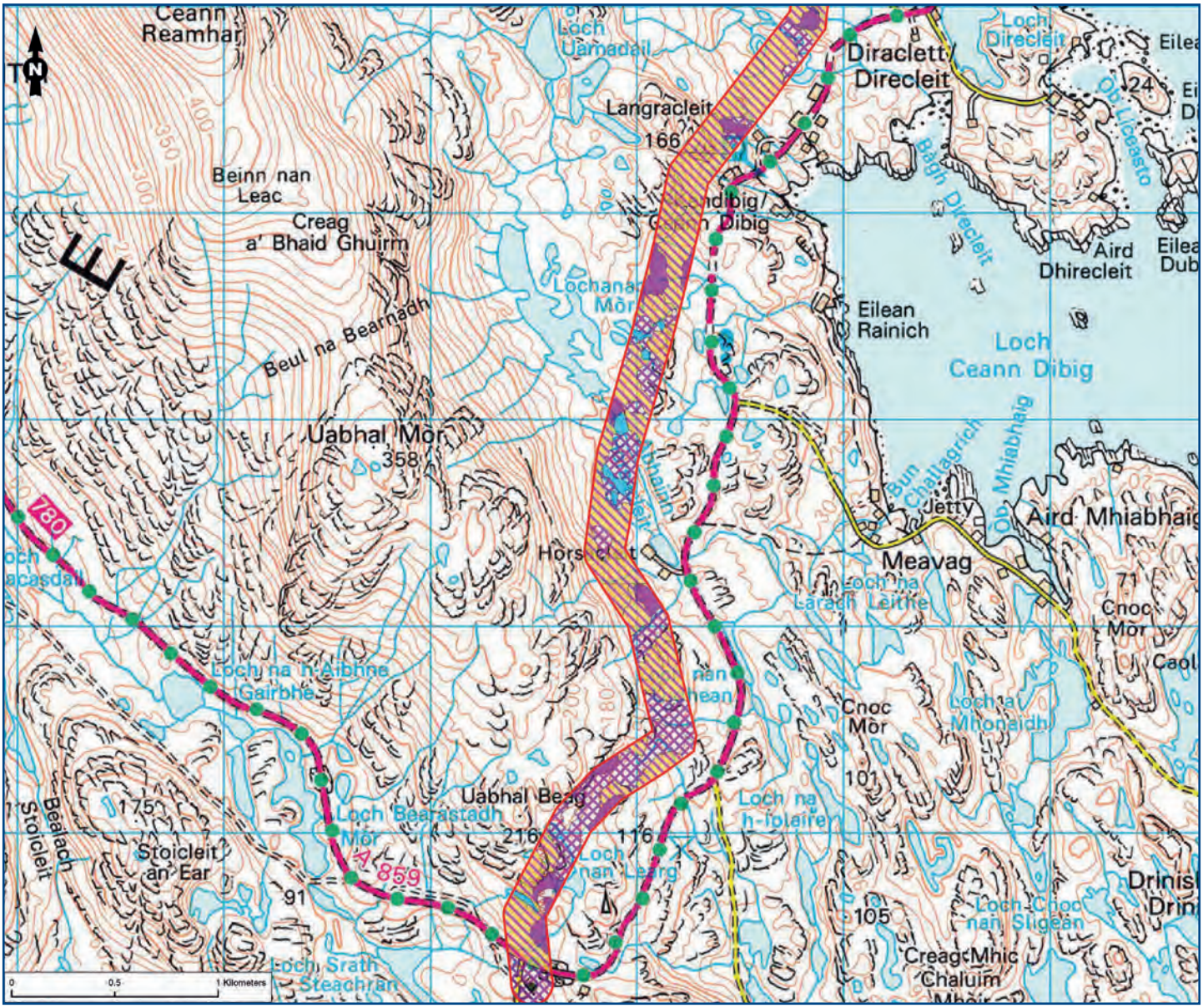
- Site Boundary

Phase 1 Code

- A1.2.2 Coniferous woodland - plantation
- B5 Marsh/marshy grassland
- E1.6.1 Blanket sphagnum bog
- E1.7 Wet modified bog
- G1 Standing water

Environment

Habitat mapping



Legend

- Site Boundary

Phase 1 Code

- D2 Wet dwarf shrub heath
- E1.6.1 Blanket sphagnum bog
- E1.7 Wet modified bog
- G1 Standing water
- I1.1.1 Inland cliff - acid/neutral
- J3.6 Buildings

Social

The interaction of our project with those who live, work and travel near it is embedded in our assessment of a preferred OHL route and our approach to how we construct and operate the line on the Islands.

Proximity to dwellings

The proximity of a line and pole to those living along its route is taken account of when we work through the options for routing the new line. We always aim to try and keep any line at least 100m away from any properties wherever possible. However, in some cases this may not be possible due to routing constraints. Where this is the case we will aim to place the new line in a position where it minimises effects on the properties whilst still being a technically feasible option.

Land use & recreation

The land and how it is utilised is included in our assessment for the siting of the OHL. For example, we look at the class of agricultural land. We look at the location and extent of commercial forestry and aim to minimise felling requirements. Where we do fell, we will replace the trees lost with new planting.

Recreational uses including footpaths, cycle routes and sporting activities (fishing, stalking, shooting) are identified and factored into the assessment of options for the OHL. A traffic management plan will be developed for managing construction traffic during the OHL build and replacement and should it be needed a plan can also be developed to help manage any disruption to recreation during the build of the line.

Landscape and visual

Landscape Designations, the Landscape Character and the Visual Amenity of the location within which the OHL will sit are key factors in our assessment of where to site the line and individual poles, as well as how to construct it.
When assessing the visual aspect of the OHL we take account of settlements and residential properties, key transportation and recreational routes utilised by tourists and visitors to an area, vantage points and tourist destinations from where views and landscape appreciation is important. We also consider whether the OHL will compromise any of the special qualities for which it is designated e.g., a National Scenic Area or whether it will compromise the characteristic elements of its landscape character.

Next steps

The interaction of the project with the environment in which it sits -flora, fauna and human, will be further assessed in detail as part of the Environmental Impact Assessment. This will be documented in a report supporting the ECU consent application for the OHL, planned for late autumn. This will then be subject to further consultation as part of the Section 37 consenting process.

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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 reasoning and route of the new replacement 132kV OHL?
- Do you feel SSEN Transmission has given enough consideration to potential impacts on the environment and the local communities that this project may have?
- Are there any additional factors, issues or concerns that you wish to bring to the attention of the Project Team regarding our proposal and its future consent application to the ECU?
- Following your review of the information displayed today, how would you rate the information provided?
- Is there anything else you would like to highlight to the team that may impact 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 8th July 2022.

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.

Comments made to the applicant are not representations to the Scottish Ministers and if the applicant submits an application there will be an opportunity to make representations on that application to the Scottish Ministers.

Community Liaison Manager, Lisa Marchi

lisa.marchi@sse.com

07825 015 507

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

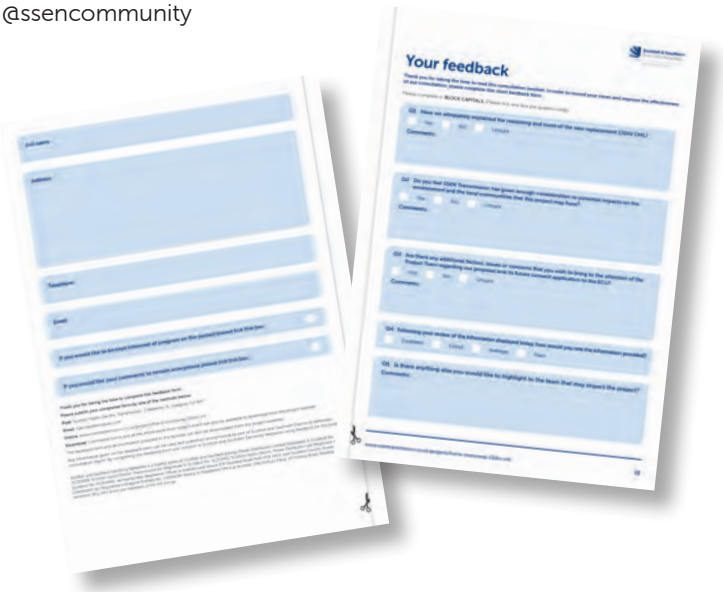
Additional information

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

Project website:
www.ssentransmission.co.uk/projects/harris-stornoway-132kv-ohl

Follow us on Twitter:
@SSENTransmission

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 Have we adequately explained the reasoning and route of the new replacement 132kV OHL?

☐ Yes ☐ No ☐ Unsure

Comments:

Q2 Do you feel SSEN Transmission has given enough consideration to potential impacts on the environment and the local communities that this project may have?

☐ Yes ☐ No ☐ Unsure

Comments:

Q3 Are there any additional factors, issues or concerns that you wish to bring to the attention of the Project Team regarding our proposal and its future consent application to the ECU?

☐ Yes ☐ No ☐ Unsure

Comments:

Q4 Following your review of the information displayed today, how would you rate the information provided?

☐ Excellent ☐ Good ☐ Average ☐ Poor

Q5 Is there anything else you would like to highlight to the team that may impact 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.ssentransmission.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 project websites.

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.