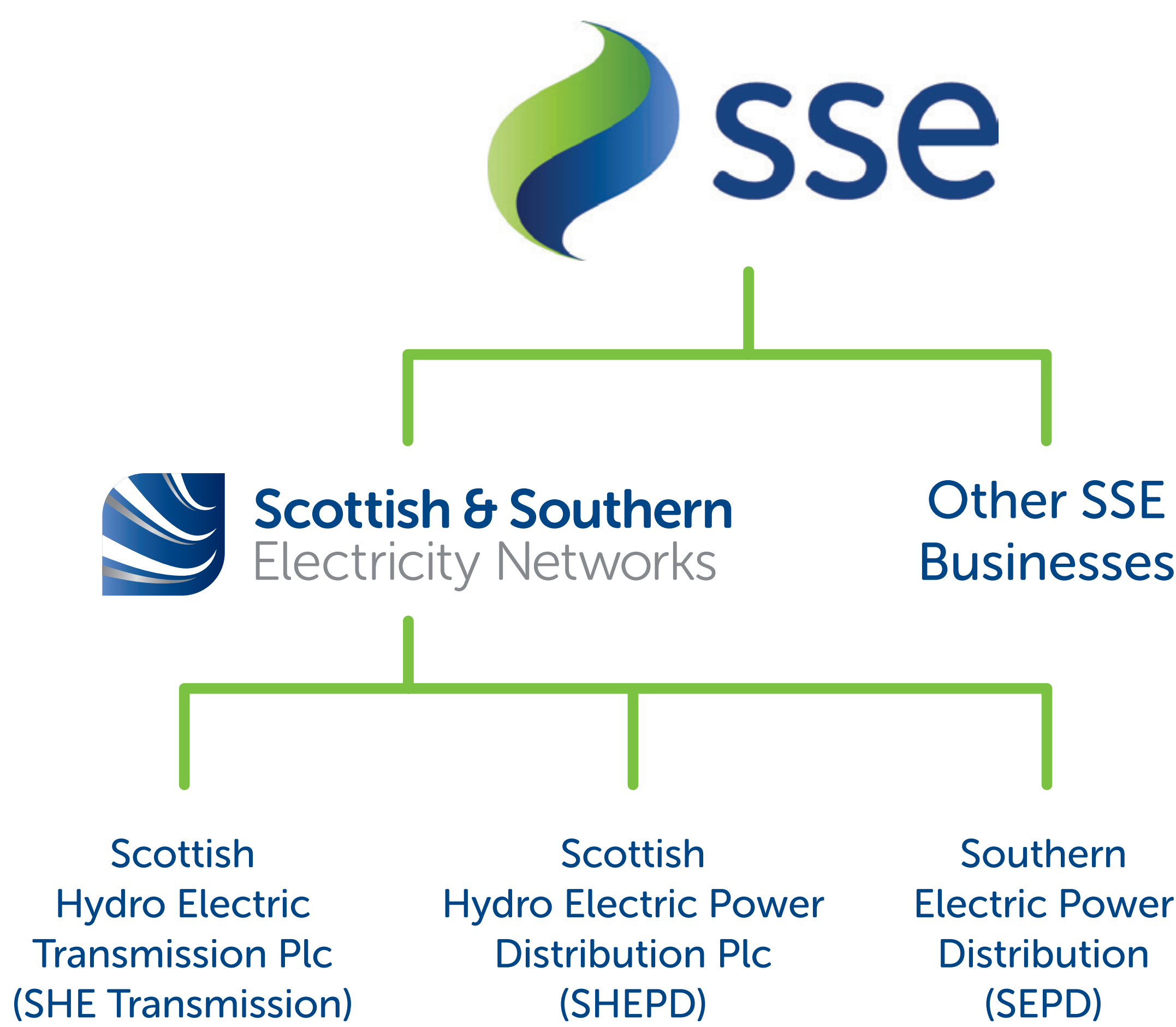


# Who we are

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.



## 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.

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.

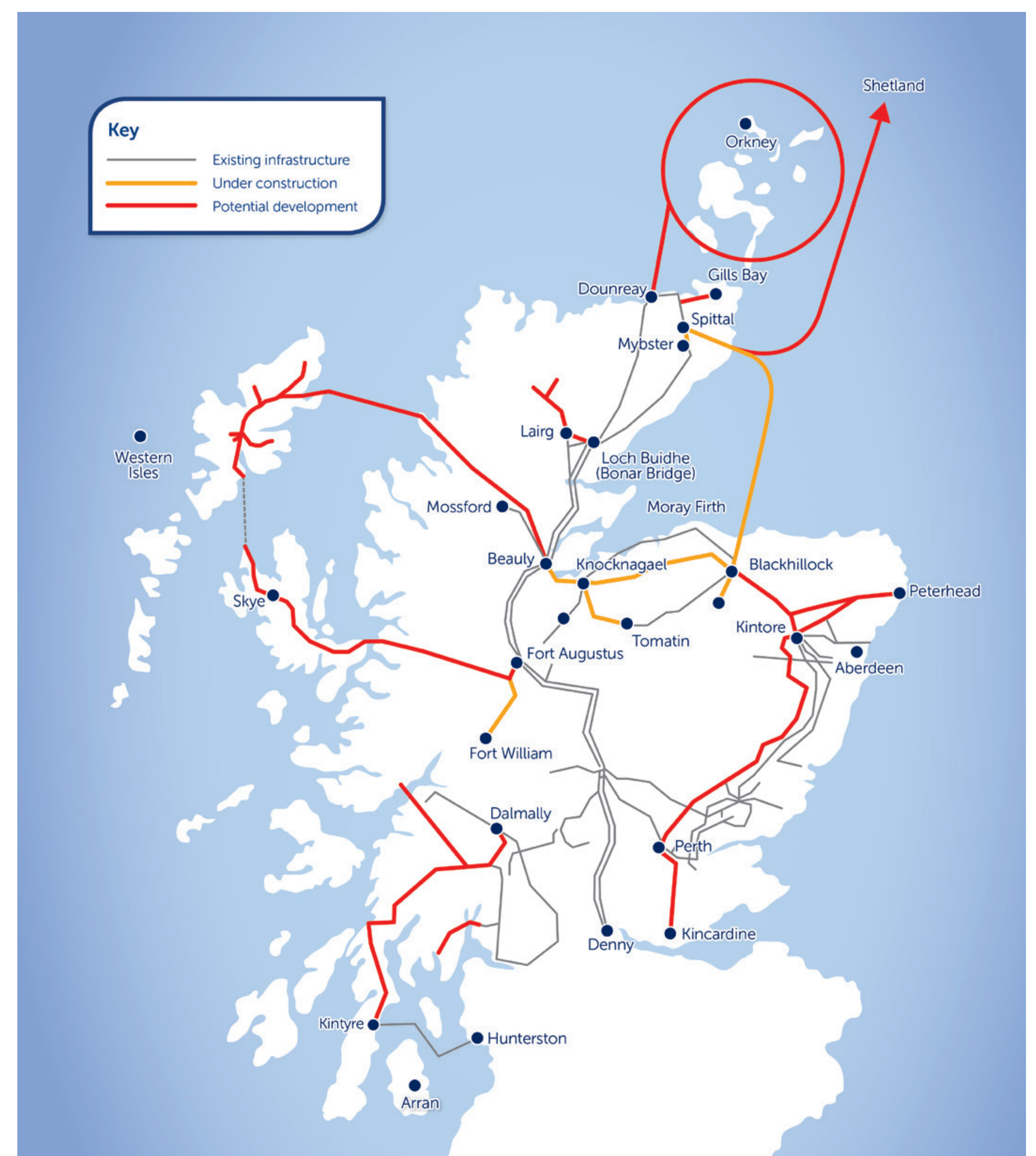
Our network crosses some of the UK’s most challenging terrain – including circuits that are buried under the seabed, are located over 750m above sea level and up to 250km long.

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.



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# Project introduction

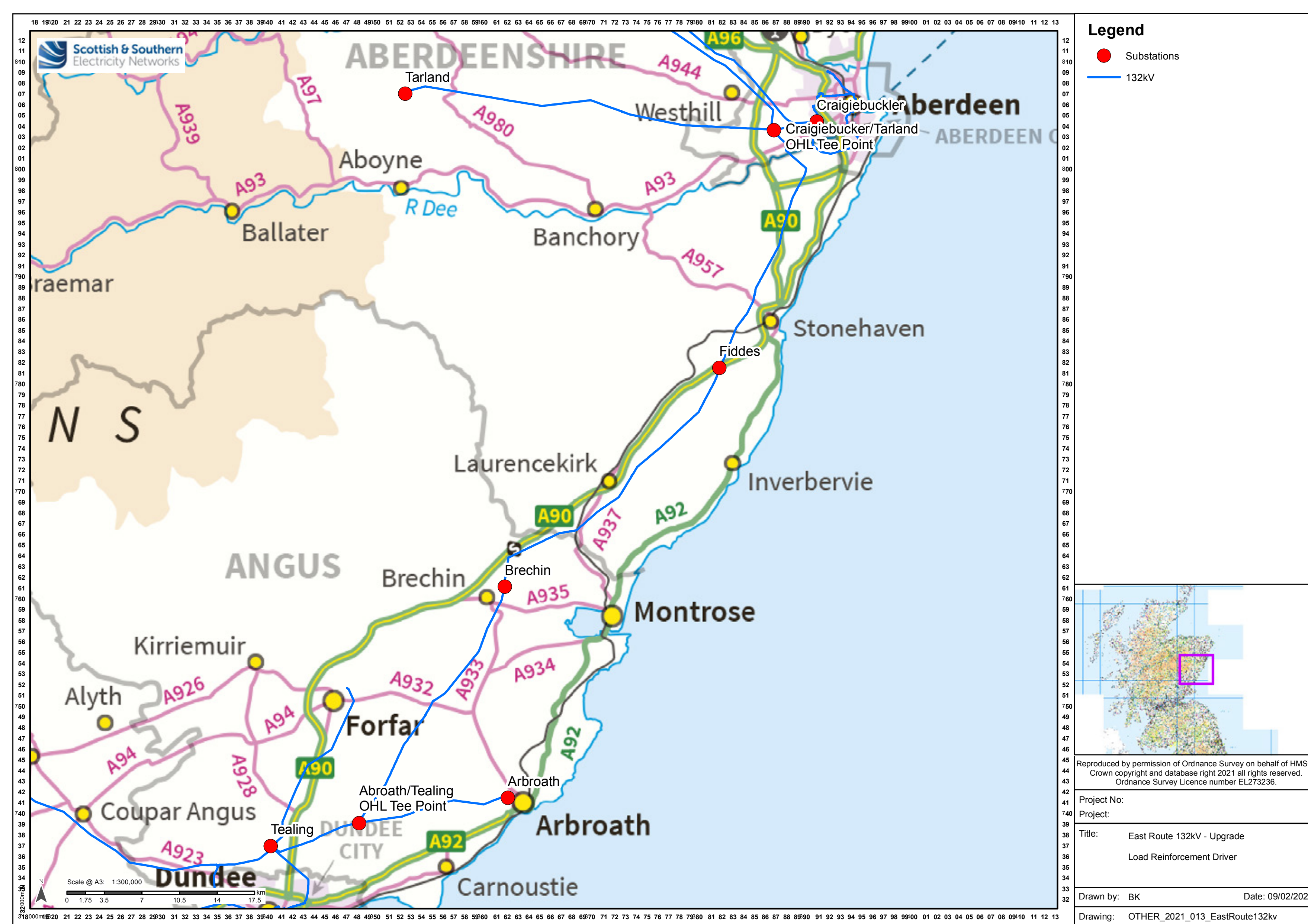
As the transmission network provider for the north of Scotland, Scottish and Southern Electricity Networks Transmission (SSEN Transmission) are responsible for the maintenance of the existing transmission network and also ensuring the network can facilitate connection requests from developers when necessary.

A number of new renewable generation schemes, including onshore wind and battery systems, requesting connection in the North East of Scotland has triggered the need for an upgrade to the East Coast 132kV transmission network which currently runs between the Craigiebuckler/Tarland Overhead Line (OHL) Tee point (west of Aberdeen) and the Tealing substation (North of Dundee).

Under our Network Operators Licence, we are required to be efficient, co-ordinated and economic, whilst having the least possible impact on people and the environment. To achieve this, a number of upgrade options have been considered against generation scenarios (scenarios comprising generators who have accepted connection offers and potential future generation). Generation scenarios in this area of the network has been variable and as this may change, it may be necessary to consider changes to the proposed upgrade solution during its development.

The options considered ranged from full replacement of the existing asset between Craigiebuckler / Tarland Tee to Tealing substation, to those which involve a reconfiguration of the 132kV network. The 132kV network reconfiguration as detailed below was selected as the preferred solution as it provides enhanced security of supply, enables increased power transfer across the wider network and of all the options it provides the best balance of economic, environmental and technical considerations.

- A new 132kV double circuit, steel lattice tower OHL to replace the existing single circuit OHL from Brechin substation to the Arbroath / Tealing OHL Tee point, and the existing double circuit from Arbroath / Tealing Tee point to Tealing substation.
- Extension of the existing Brechin substation.
- A new 275/33kV substation in the vicinity of Fiddes **OR** alternatively a new 132kV double circuit OHL from Fiddes 132/33kV substation to Fetteresso 275/132kV substation.
- Post construction, the removal of the existing 132kV OHL between Craigiebuckler/Tarland OHL Tee point and the Tealing substation.



This consultation will focus on the OHL routing of the new 132kV Brechin to Tealing double circuit OHL.

An assessment is in progress to select between a new 275/33kV substation in the vicinity of Fiddes OR a new 132kV double circuit OHL from Fiddes 132/33kV substation to Fetteresso 275/132kV substation. We will return to consult on this separately once the review is concluded.



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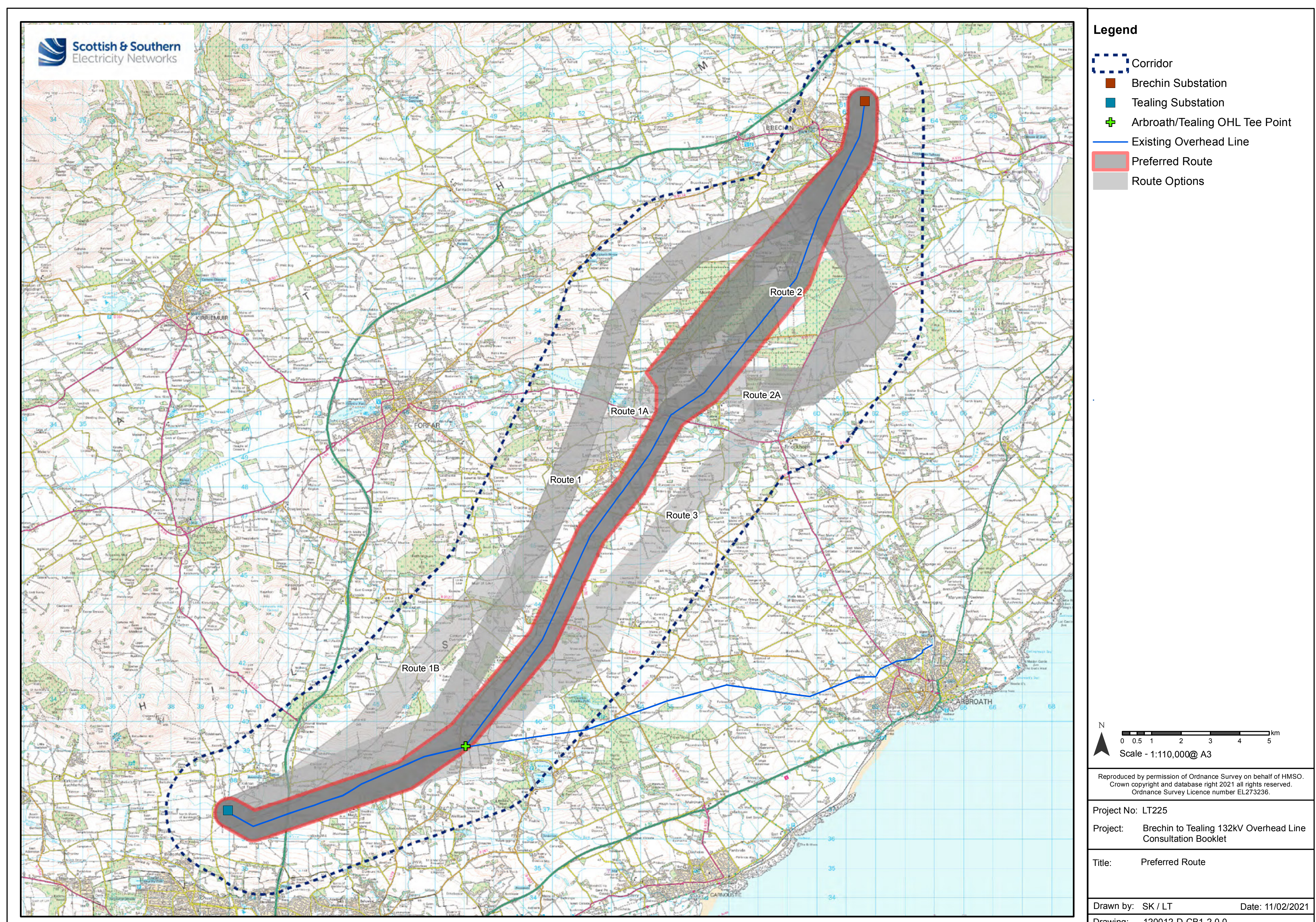


# Brechin to Tealing 132kV OHL

## Preferred route

SSEN Transmission published the Overhead Line Route Selection Consultation Document in February 2021.

The OHL is subject to a detailed routeing 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. The preferred option of these routes is then consulted on before a preferred alignment is developed and further consultation takes place. Early consultation responses from statutory stakeholders have suggested a route following the existing overhead line would likely minimise additional impacts. SSEN Transmission has identified route 2 as our preferred route, but widened to include part of 1A and land in between at Montreathmont Forest, with its broader area for flexibility of alignment, it is considered to offer fewer constraints in comparison to those that route around the forest. This consultation seeks views from the public, statutory authorities and other interested stakeholders on the route options and preferred option identified as shown below.



The information obtained from this initial consultation will be reviewed prior to confirmation of the proposed route and progression to the overhead alignment stage. A Report on Consultation will be produced which will document the consultations received, and the decisions made in light of these responses. A further consultation exercise will then be held to seek your opinion on the preferred overhead line alignment.

All consultation documentation is available from our project website:  
[www.ssen-transmission.co.uk/projects/east-coast-132kv-upgrade/](http://www.ssen-transmission.co.uk/projects/east-coast-132kv-upgrade/)



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# Construction of an overhead line

The existing Brechin to Arbroath / Tealing Tee Point OHL is a single 132kV circuit, comprised of H-wooden poles and steel lattice towers. The existing Arbroath/Tealing Tee Point to Tealing OHL is a double 132kV circuit, comprised of steel lattice towers.

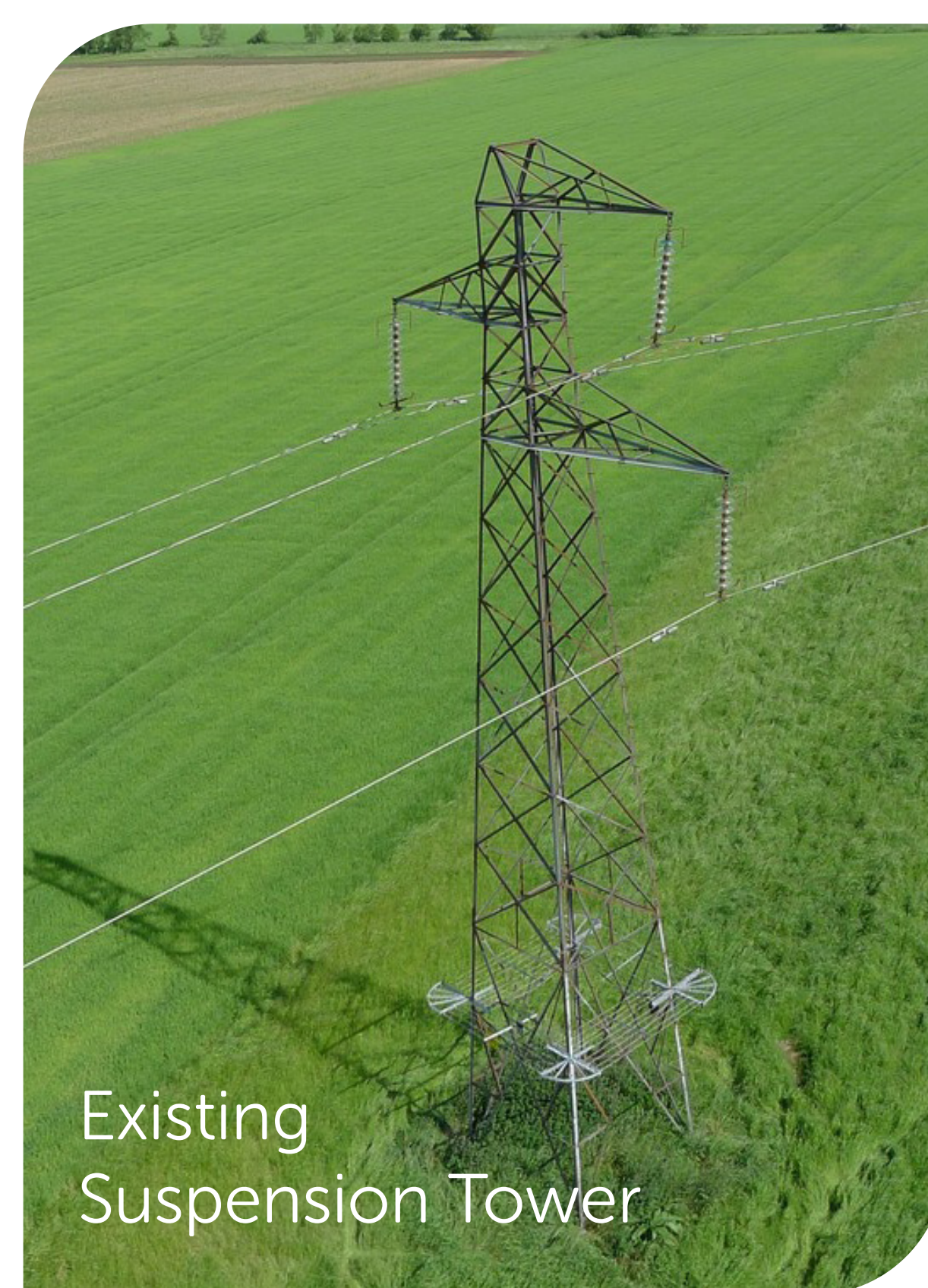
To facilitate the increased generation looking to connect, these OHL's need to be replaced by a higher capacity, double 132kV circuit comprised of steel lattice towers.

The steel lattice towers proposed will be higher than the existing H-wooden poles and steel lattice towers on the Brechin to Arbroath / Tealing Tee Point OHL. The advantage of larger towers is that the distance between towers is greater resulting in less towers being required.

The steel lattice towers would have a nominal height of approximately 26 - 27 m (including insulators and support). The structure selection process is ongoing and current models under consideration are the L7c and L4m steel lattice towers. The spacing between towers would vary depending on topography and altitude. The specific distances would be determined after a detailed line survey, but would be approximately 250m apart.



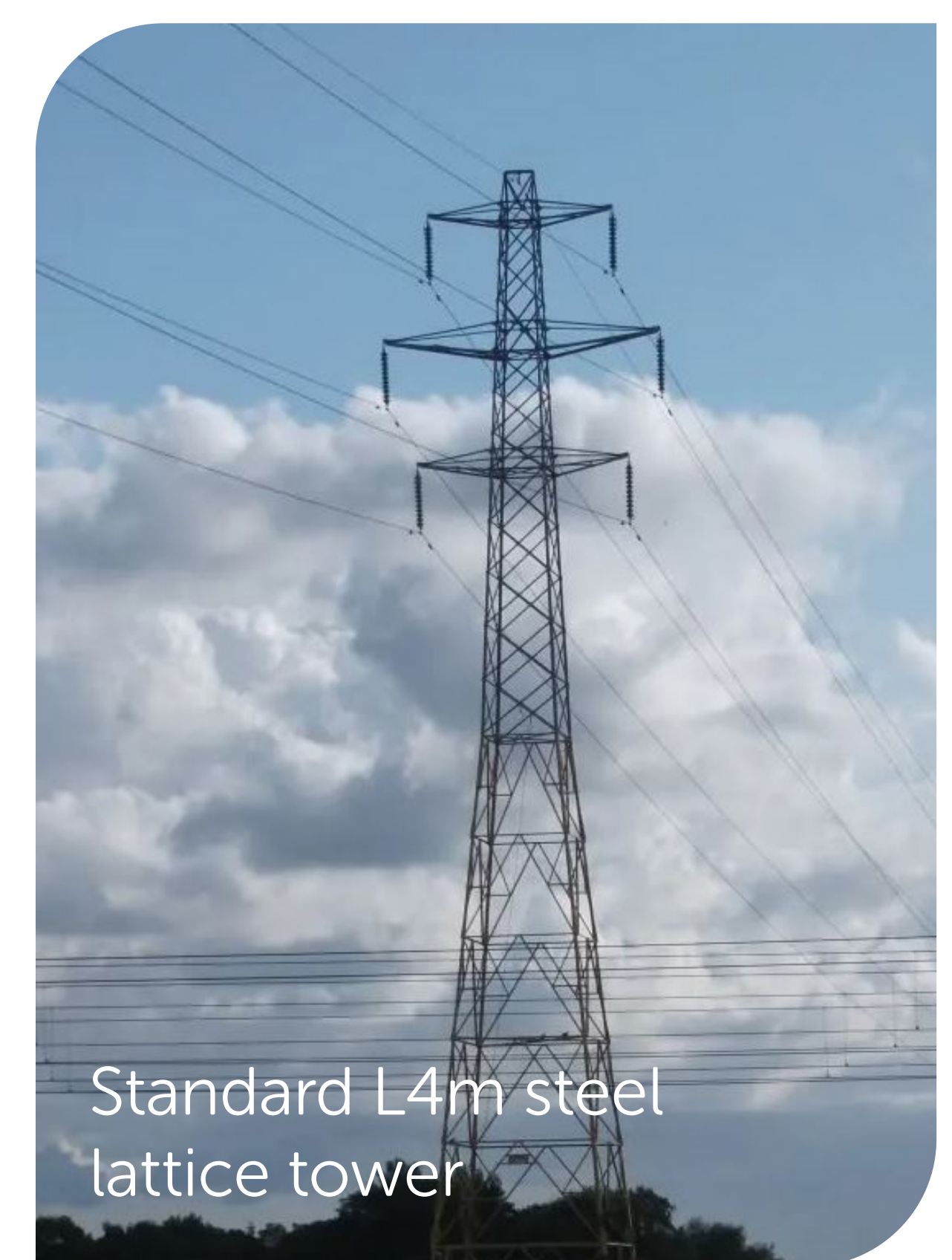
Existing Intermediate Pole



Existing Suspension Tower



Standard L7c Suspension Tower



Standard L4m steel lattice tower

## Timeline



## Planning application

A Section 37 application will be made under the Electricity Act 1989 for the new 132kV double circuit overhead transmission line. This will cover all aspects of the overhead line works. This application is made to the Energy Consents Unit of the Scottish Government.



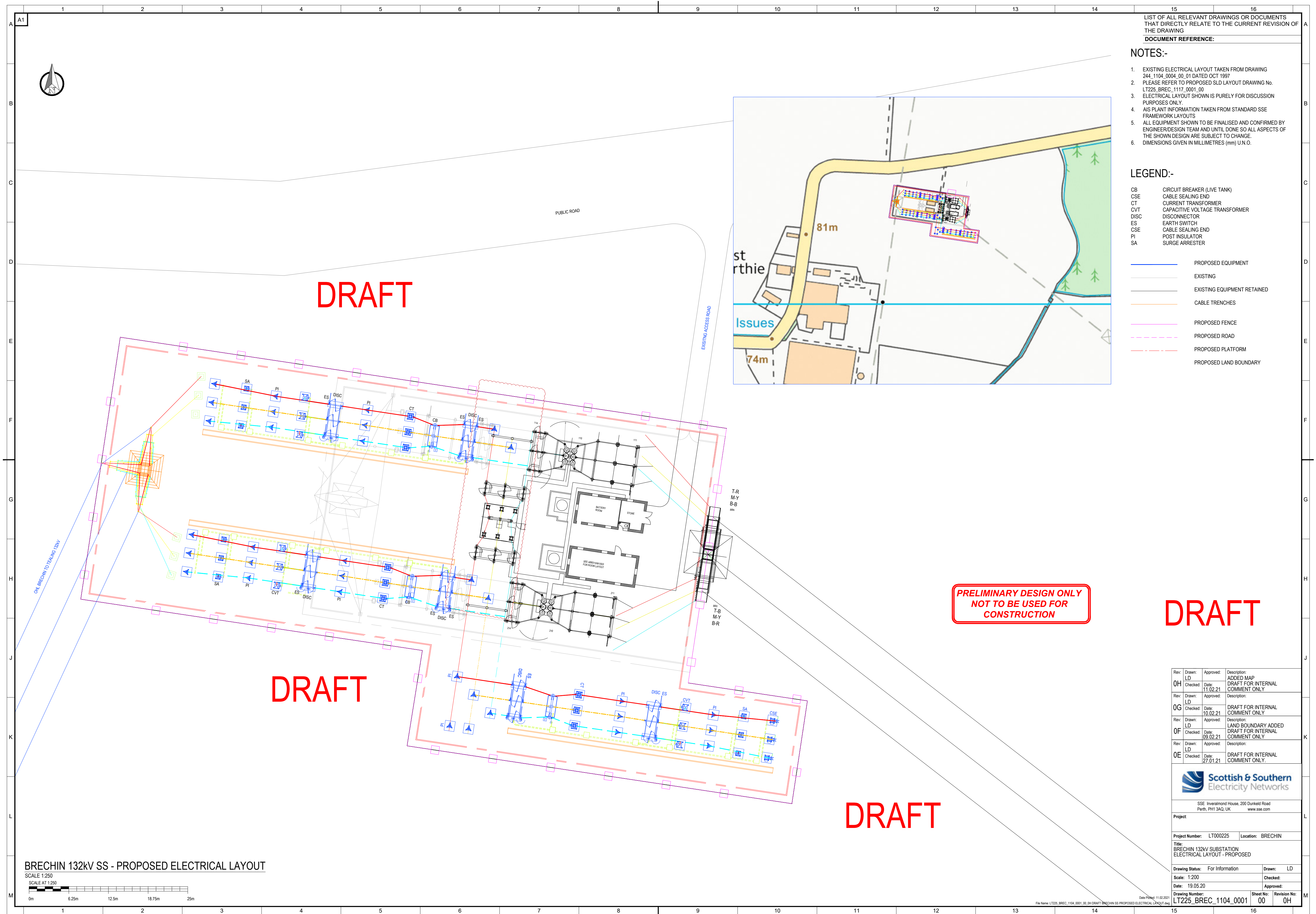
# Substation Works

## Brechin substation extension

The new OHL will connect into the existing Brechin substation. Two of the existing bays will be used for this connection. These bays will be extended to include necessary additional switchgear.

The substation will also be extended to include a new bay for the connection for new generation. A planning application for this extension will be submitted in Summer/Autumn 2022 with construction to commence in 2024

## Brechin 132kV substation proposed layout



## Tealing substation

The existing bays at Tealing will be repurposed for the connection of the new OHL. No extension is currently anticipated at this moment in time.



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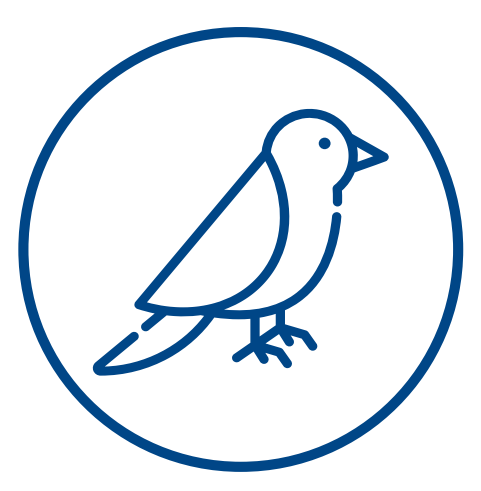
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# Environmental considerations

## Environmental aspects

The Route Options have undergone comparative appraisal of potential environmental constraints grouped in categories below which have been informed by desktop study and high-level site appraisals:



Natural heritage



People



Cultural heritage



Landscape and Visual



Land use



Planning

### Natural heritage

The corridor generally comprises a mosaic of agricultural land and woodland. Woodland areas are dominated by conifer plantations, with the largest expanse at Montreathmont moor to the north of the corridor. There are numerous fragments of broadleaved and mixed woodland associated with riparian zones, field boundaries, road and railway sides, and around settlements. These will provide suitable habitat for protected species such as badger, red squirrel, pine marten, bats and otters (around riparian zones), as well as breeding birds. More wetland areas could provide suitable habitat of value for breeding waders and wildfowl. Further surveys will be undertaken at the alignment stage to seek to minimise impacts on natural heritage.

Environmentally designated sites within the corridor include the River South Esk Special Area of Conservation which contains salmon and freshwater pearl mussel and is crossed by all route options. Other designated sites include biological Sites of Special Scientific Interest (SSSI), geological SSSI and Geological Conservation Review sites. The preferred route has been selected to minimise impacts on environmentally designated sites.

### People

Within the corridor, settlement is concentrated within the town of Brechin and villages of Letham and Friockheim, as well as scattered communities and dwellings throughout. The main local centre for the area, Brechin, is located in the north of the corridor, while Forfar is located about 2.4 km west of the corridor. The city of Dundee lies immediately south of the corridor.

Route options generally avoid the main areas of settlement. However, there are numerous dwellings and buildings scattered throughout all route options. Some route options are more highly constrained than others, and further review will be undertaken at the alignment stage to ensure sufficient distance to dwellings is maintained.



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# Environmental considerations cont.

## Cultural heritage

The area has a rich and diverse heritage, with many historical and archaeological features. The River South Esk and surroundings is a particular focus for cultural heritage, including the town of Brechin, Brechin Castle and Kinnaird Castle with associated designed landscapes.

There are many designated cultural heritage assets throughout the corridor. These include Scheduled Monuments, Inventory Gardens and Designed Landscapes, Listed Buildings, Conservation Areas, non-inventory designed landscapes and sites on the local authority Historic Environment Record, all of which have been considered as part of the appraisal of route options. Generally, it is considered there will be opportunities to minimise impacts on cultural heritage assets through design at the alignment stage.

## Landscape and Visual

Landscape character within the corridor is predominantly agricultural and large in scale, comprising low-lying, open rolling farmland, dispersed with scattered settlement. Isolated hills in the northwest contrast with the surrounding landscape, while land in the northeast is more flat and open. Woodland cover is relatively sparse, although there is a large area of woodland around Montreathmont moor.

Multiple historic features, including medieval castles, iron age settlements and designed landscapes, contribute to the area's diverse character and sense of place, which is also valued for recreation. Modern structures also feature in this landscape, including small-scale wind turbines, telecommunications masts, overhead lines (steel lattice and wood pole), and substations at Brechin and Tealing.

Visual receptors are situated in residential areas and places of work (including in Brechin, Letham and Friockheim and other communities and scattered dwellings), as well as on roads, paths and other outdoor recreational locations.

## Planning

Adherence to National, Regional and Local planning policy will in large part depend on avoiding or minimising potential constraints noted. Consideration is also being given to consented projects, planning proposals and potential proposals.

## Land use

Land use throughout the corridor is dominated by arable farmland field systems and smaller areas of pasture. Small areas of woodland (including woodland recorded on the Ancient Woodland Inventory), hedges, individual trees and shrubs are scattered at low frequency through agricultural areas. Forestry at Montreathmont crosses a large part of the corridor and contains a diverse composition of conifer plantations mixed with stands of Scots pine and birch. SSEN Transmission are committed to no net loss of all woodland cover on capital investment projects. Where felling is required to accommodate the overhead line, we will ensure that sufficient tree planting would take place on the project or at another location to ensure no net loss of woodland cover and to enable our ambition of achieving a Biodiversity Net Gain.



Once an alignment has been selected an Environmental Impact Assessment (EIA) Screening Request Report will be submitted to the Scottish Government's Energy Consents Unit (ECU) to determine whether a full EIA is required for the project. The scope of environmental assessments to support an application for consent under Section 37 of the Electricity Act 1989 will be determined following the screening.



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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:

- Has the project information provided explained the need for the East Coast 132kV overhead line works?
- Have we adequately explained the different parts of the overall project clearly?
- Do you support SSEN Transmission's 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 East Coast 132kV Overhead line works?

## Comments

We will be seeking feedback from the members of the public and Statutory Bodies until **12th March 2021**.

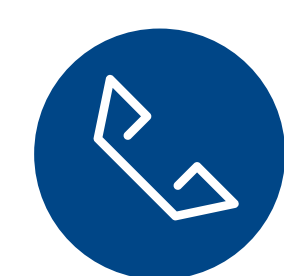
All received feedback will be assessed and the proposed options adapted where necessary.

Your views and comments can be provided to the project team by completing a feedback form or by writing to Louise Anderson,

## Community Liaison Manager, Louise Anderson



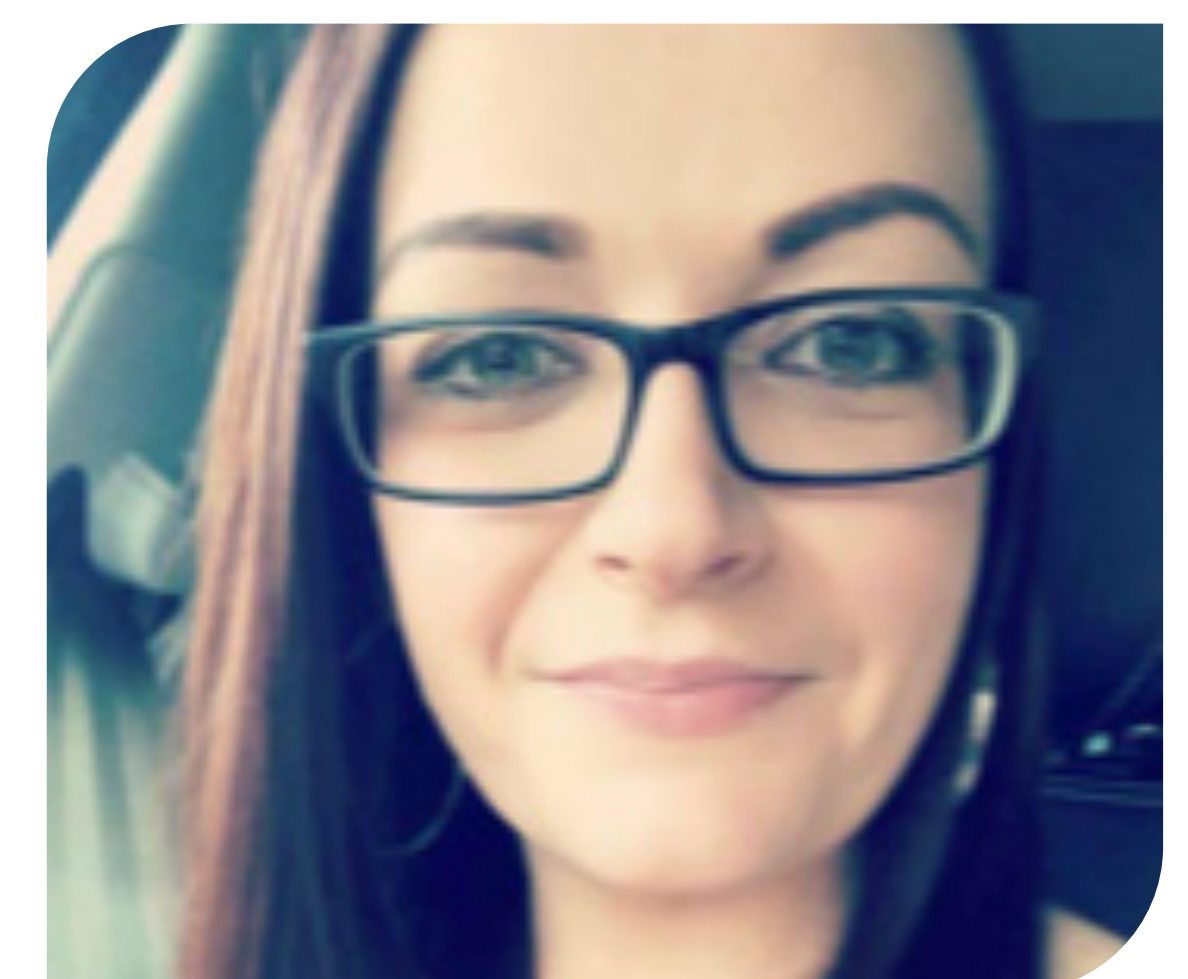
[louise.anderson@sse.com](mailto:louise.anderson@sse.com)



07384 454 233



**Louise Anderson**  
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Perth, PH1 3AQ



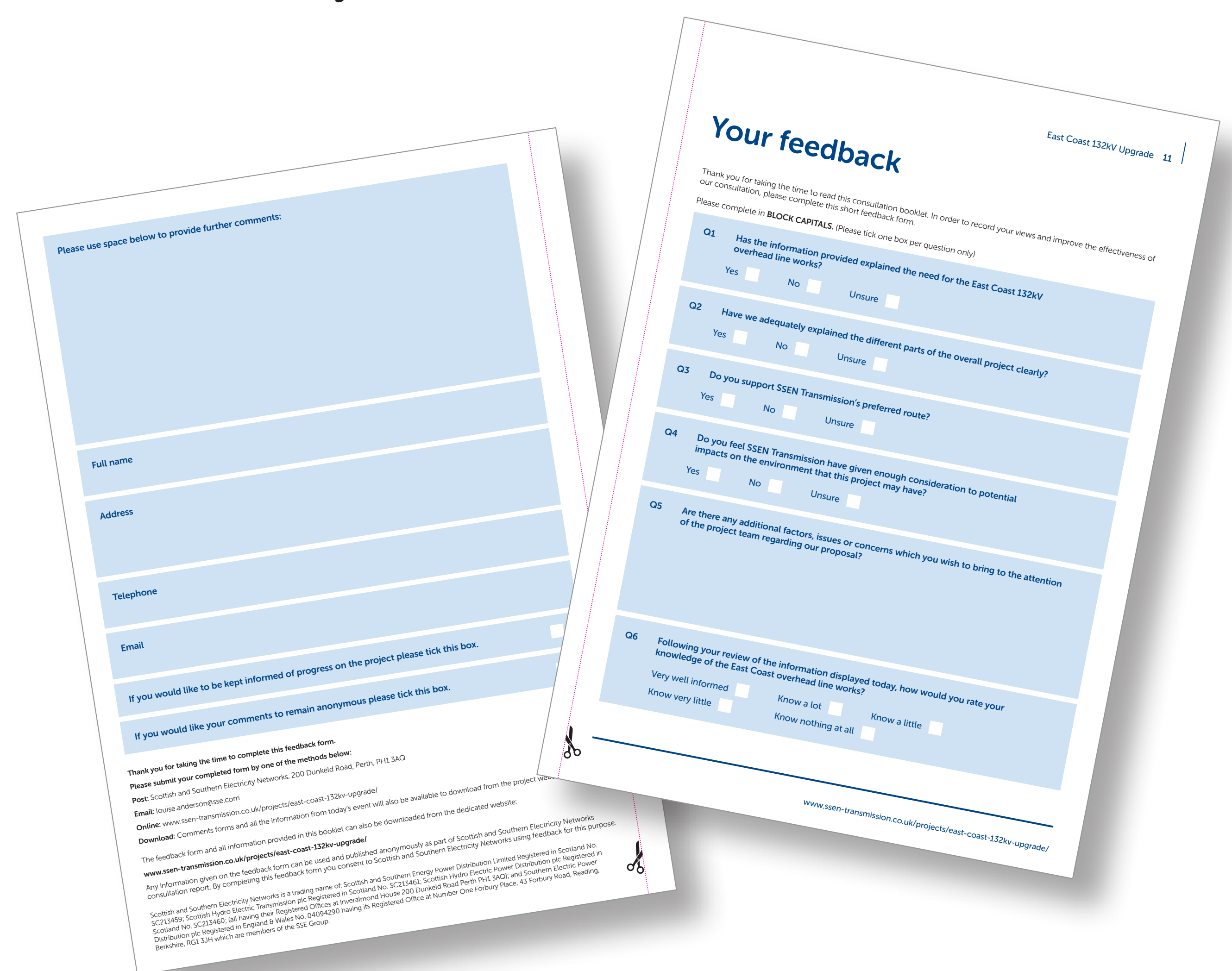
## Additional information

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

**Project Website:** [www.ssen-transmission.co.uk/projects/east-coast-132kv-upgrade/](http://www.ssen-transmission.co.uk/projects/east-coast-132kv-upgrade/)

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