

About SP Energy Networks



We all expect electricity to be available at the flick of a switch, 24 hours a day.

In southern and central Scotland, the job of making sure this happens belongs to SP Energy Networks. In fact, we have a statutory duty to do it.

SP Energy Networks operates, maintains and develops the network of cables, overhead lines and substations which transport electricity to homes and businesses in southern and central Scotland, and onwards to where it's needed further afield.

The high-voltage electricity transmission network, which operates at up to 400,000 volts, is managed by SP Transmission plc, a wholly owned subsidiary of SP Energy Networks.

We take electricity generated from wind or solar farms, power stations, and transport it through our transmission network – over 4,500 km of overhead lines, 600 km of underground cables and more than 150 substations – to local distribution networks, where the voltage is reduced for use in homes and businesses.

Electricity in our changing world



Scotland is a world leader in the fight against climate change.

Our country has a target of Net Zero greenhouse gas emissions by 2045 – meaning that Scotland’s contribution to climate change will end, definitively, in one generation.

We are in the middle of a transformation, with the energy we use increasingly coming from cleaner, greener sources, as many new renewable generators replace fossil-fueled power stations.

At the same time, demand for electricity will grow rapidly over the next few years, with electric vehicles replacing petrol and diesel, and increased electrification of heating, industry and transport networks.

This huge change means we need to upgrade Scotland’s electricity transmission network, so we can get this increasing amount of energy from where it’s produced – often in different locations from before – to the homes, businesses, hospitals and public services that need it.

Our network is also crucial to the delivery of wider renewable energy objectives, due to its geographical location.

Much of the Transmission network was constructed more than five decades ago so, as well as needing to grow to support a wider spread of renewable generation and storage, we also need to modernise and increase capacity in the system to support a robust and reliable UK wide network.

Why do we need a new overhead line from Callisterhall to Gretna?



SP Energy Networks is responsible for the transmission and distribution of electricity in central and southern Scotland.

We have an obligation to maintain, operate and invest in our network to secure a safe, reliable, and economic service for current and future customers.

The existing electricity transmission network in the south of Scotland will soon be at full capacity, unable to accommodate all the clean, green renewable energy we will all need in future.

SP Energy Networks has received a Grid Connection Application via the National Electricity System Operator (NESO) from the developer for the connection of Callisterhall Wind Farm. As the transmission licence holder, SP Transmission (SPT), represented by SP Energy Networks, is legally obliged under the Electricity Act 1989 ('the 1989 Act') to provide a grid connection.

The Callisterhall Wind Farm Connection project involves construction of a new 132 kV overhead line supported on wood poles, running north-south for around 14.7 km from the proposed Callisterhall Wind Farm, located approximately 7.5 km west of Langholm, to the proposed existing Gretna substation, close to the Scotland – England border, where it will connect to the existing high-voltage transmission network.

We will also need to create temporary accesses for overhead line construction areas, and construction compounds to store materials. There are well-established procedures in place for creating and then decommissioning these, to minimise impact on the environment and local communities.

What will the new overhead line look like?



The new overhead line will be supported on trident wood poles with galvanized steelwork cross-arms supporting aluminium conductors on insulators.

These are suitable for supporting single circuit lines operating at 132 kV.

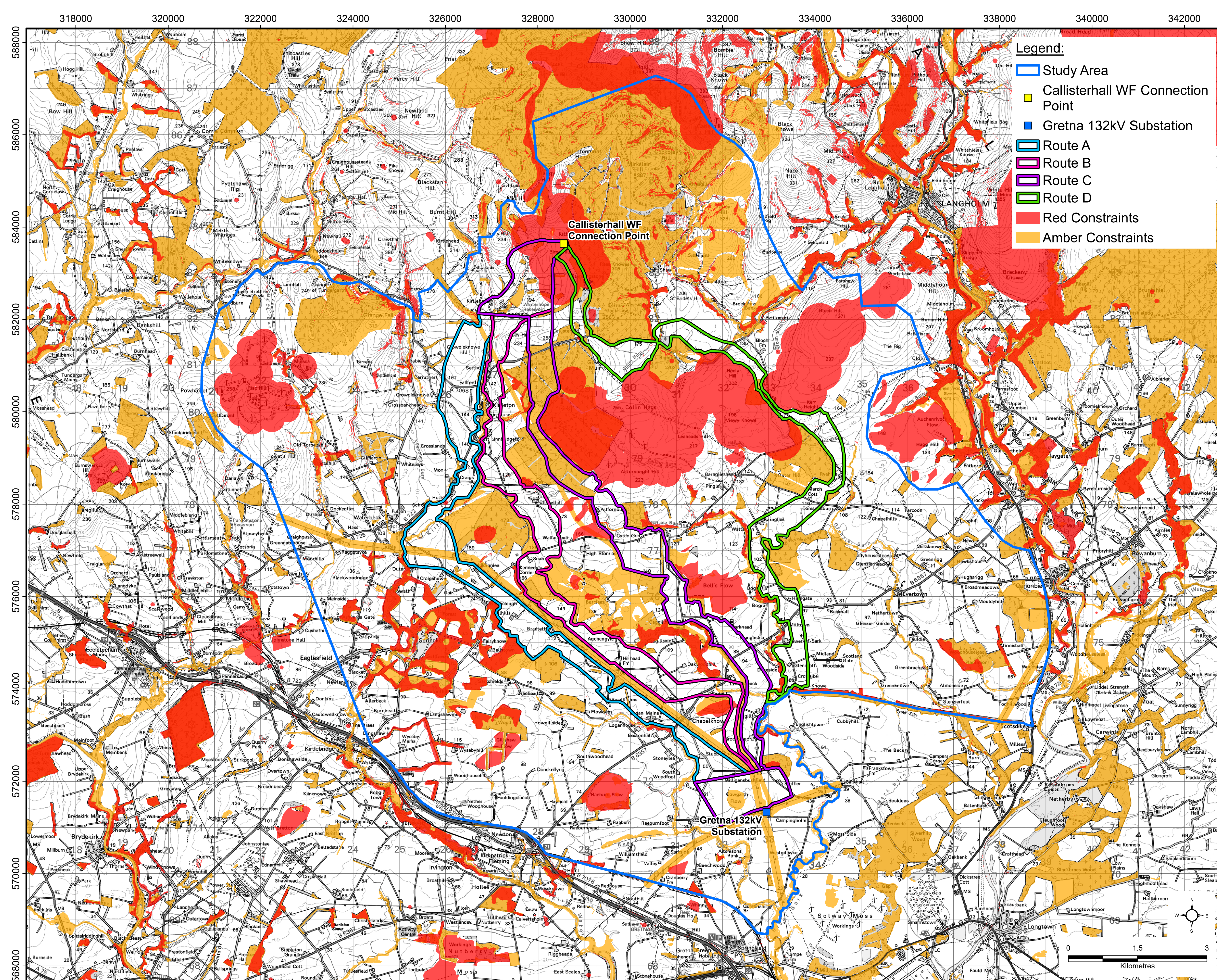
Whilst wood poles have a standard height above ground of between 14 and 16 m, they can be extended or reduced in height, with a range between 10m and 21m as required. Pole heights may require to be increased where circumstances dictate, e.g. over elevated land, structures or features.

The section of OHL between wood poles is known as the 'span', with the distance between them known as the 'span length'. Span lengths between wood poles range from 65m – 100m but the span length will vary depending on factors such as size of the conductor, size of the structures, terrain, altitude, ice and wind loadings etc.

Wood poles are fabricated from pressure impregnated softwood, treated with a preservative to prevent damage to structural integrity. New wood poles are dark brown in colour and weather over time to a light grey. The wood pole top cross-arms are galvanised steel and support the aluminium conductors on stacks of grey insulator discs. Both the steelwork and aluminium will weather and darken after a few years.

The northern part of the route contains land above 200m Above Ordnance Datum (AOD), which will likely require construction using H poles (rather than single poles), with a span length of around 70m – 100m and pole heights ranging from 10m – 22m with a typical height of 13m.

Selecting a route for the overhead line



The routing of overhead lines is a complex process, balancing statutory obligations, engineering requirements, economic viability, the environment, and people who live, work, enjoy recreation and pass through it.

Established guidelines for routing transmission overhead lines are followed, which combine in-depth environmental studies with technical and economic factors. A key part of this is consultation with landowners, stakeholders and the public to inform the development of the project.

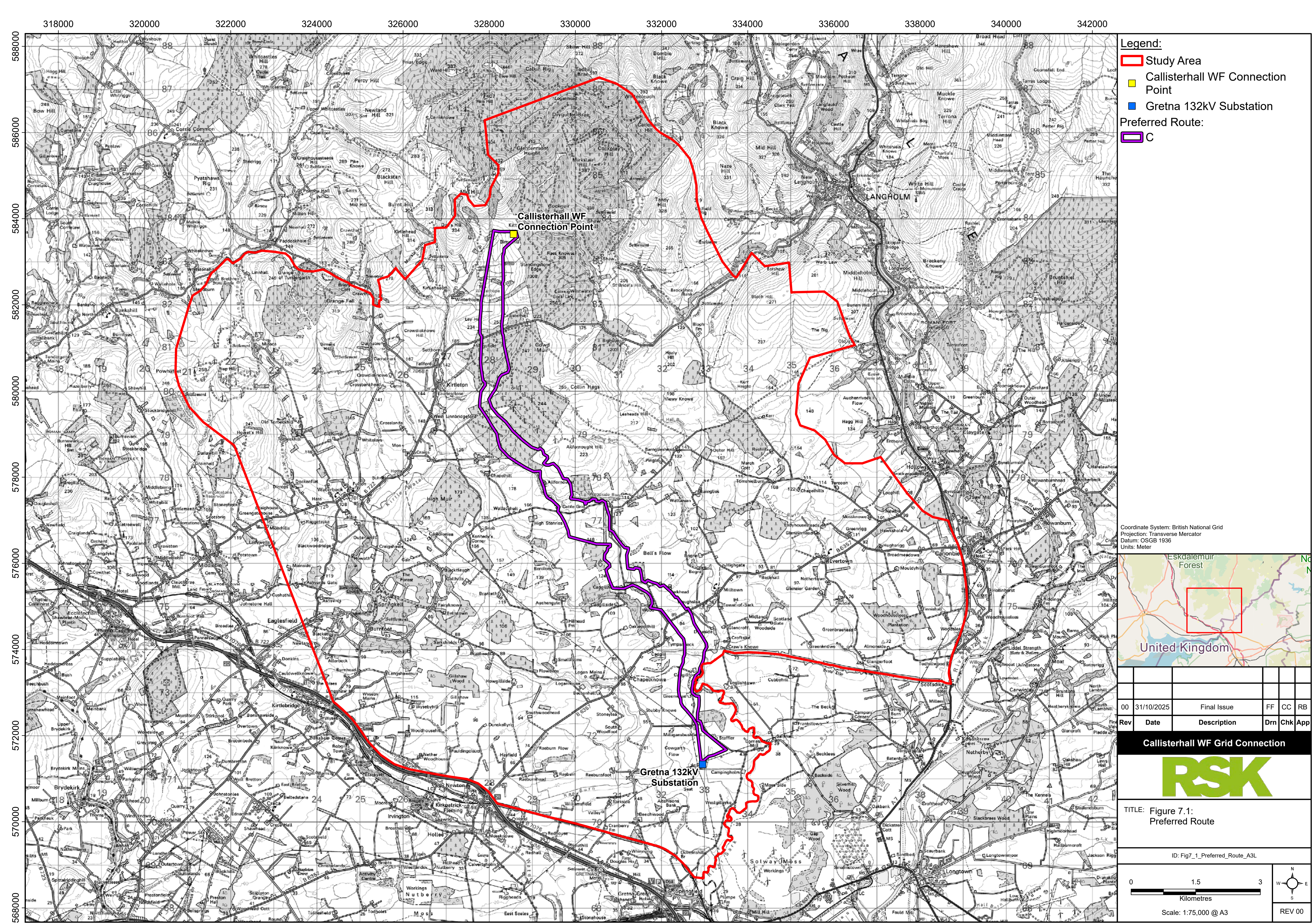
SP Energy Networks has been working with environmental consultants to identify potential routes for the new overhead line between the proposed Callisterhall Wind Farm and Gretna substation.

Each option is appraised for its impact on a range of criteria including local views, the character of the landscape, biodiversity, forestry, cultural heritage, flood risk, geology, and other land uses.

The preferred route (a swathe of land within which an overhead line could be installed), is the one that achieves the best balance between our technical requirements and minimises the impact on the environment and the people, who live, work and enjoy spending their time in the area.

You can find detailed information in the Routing and Consultation Document, which is available to view [here](#) and on our website.

Our preferred route



This has an overall length of approximately 14.7 km long.

It is considered to offer the best balance between environmental, technical and economic factors. It is technically feasible and economically viable and, relative to other route options, avoids or reduces impacts on the environment and the people who live, work and partake of recreational activities in the area as far as possible.

The consenting process



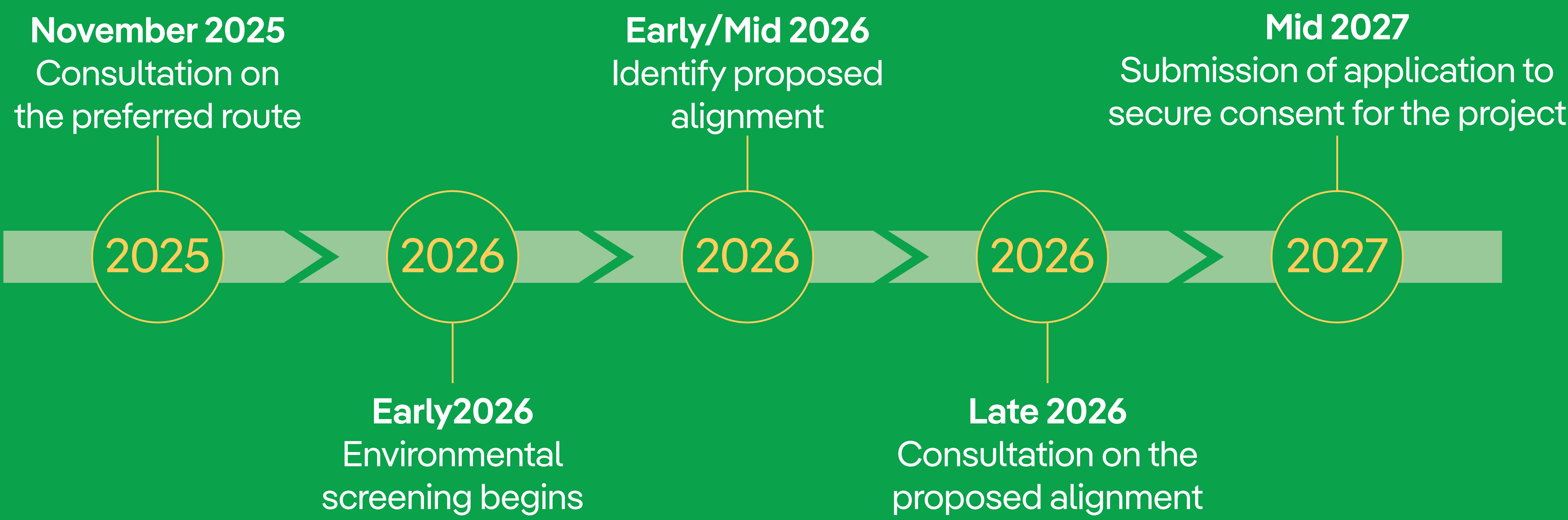
To install and maintain the proposed overhead line, we need to seek consent from the Scottish Ministers under Section 37 of the Electricity Act 1989.

Consulting those likely to be affected by our plans is an important part of developing our proposals. We will consider the views of the local community and other interested parties as well as feedback from statutory consultees and technical bodies such as Dumfries and Galloway Council, SEPA and NatureScot.

We'll use comments received during this consultation on our preferred route option alongside findings from environmental assessments to help identify the final alignment for the new overhead line.

We are planning to hold a second round of events in 2026 to share how we have taken on board your comments and seek feedback on our final proposals before we submit a section 37 application to the Energy Consents Unit to seek permission for the development.

Timeline:



Consultation and how to give feedback



Please give us your feedback on our preferred route option.

We will consider all comments we receive in response to this consultation as we develop the final proposed alignment for the replacement overhead line.

The deadline for feedback is Friday 16 January 2026.

Email: **callisterhallconnectionproject@spenergynetworks.co.uk**

Write to: **Callisterhall Wind Farm Connection, Land and Planning Team, SP Energy Networks, 55 Fullarton Drive, Glasgow G32 8FA.**

Complete the online feedback form at the link below.



If you would like a hard copy version of any of consultation materials, please contact us. Any materials can also be made available in large print format on request.

Please note that any data collected through your consultation feedback will only be used to help understand views regarding the Callisterhall Wind Farm Connection Project. The data will be collated and analysed to help in the reporting of consultation feedback.

The data will not be held or used for any other purpose.