

**Cross Border Connection
- Gala North to Scottish Border**

Welcome

Thank you for taking the time to read about the Cross Border Connection. SP Energy Network's is consulting on the proposed 400kV/132kV Teviot Substation and the 400kV steel tower, overhead line which will run from the proposed Gala North Substation to the Scottish border.

The purpose of this consultation is to obtain your feedback on the preferred site for Teviot substation and the overhead line route between Gala North Substation and the Scotland-England border. Your views are important to us, so please take the time to view the exhibition. You'll find further information on the website, along with the ability to provide feedback through our digital consultation feedback forms.

About SP Energy Networks

SP Energy Networks is a Distribution and Transmission Network Operator. We keep electricity flowing to homes and businesses throughout Central and Southern Scotland, North Wales, Merseyside, Cheshire and North Shropshire.

We do this through the network of overhead lines and underground cables which we own and maintain.

Today's focus is SP Energy Network's Transmission

network, which operates in Central and Southern Scotland, through SP Transmission.

Think of it as a 'superhighway' which takes electricity generated from power stations, windfarms and various other utilities and transports it through a transmission network, consisting of over 4500 kilometres of overhead lines and over 600 kilometres of underground cables.

SP Energy Network's Transmission network has over 150 substations and in excess of 100 grid supply points. This is where it takes the high voltage supply and reduces it to the low voltage needed for the distribution network ready to power homes and businesses.



SP Energy Networks transmits and distributes energy to over 3.5m homes in the South of Scotland, North Wales and the North West of England and is responsible for the operation and maintenance of over 105,000km of overhead lines and underground cables.



For more information on SP Energy Networks please scan the QR code





 For more information on NGET and it's part of the project please scan the QR code 

Working with National Grid

The Cross Border Connection is a joint development between SP Transmission and National Grid Electricity Transmission (NGET). SP Energy Network's is developing and will construct the section of the connection in Scotland, the SP Energy Network's Project, while NGET is delivering the connection in England, the NGET Project. The two parties are working closely on the project.

NGET's proposals for the Cross Border Connection in England are in a very early stage of development. In 2025, NGET plans to hold its first stage of consultation, known as a non-statutory consultation, at which point they will present their early proposals, including proposed technology and routeing/siting aspects in England.

NGET will seek consent for the area of the project situated in England via a Development Consent Order (DCO), as it

is a Nationally Significant Infrastructure Project (NSIP). The UK Government's Secretary of State for Energy Security and Net Zero will decide whether to grant development consent for the proposals in England.

Although SP Energy Network's is consulting on a preferred route before NGET, the Scottish section of the Project will be subject to alignment with the section in England before detailed design.

A renewable future

By 2030, the Scottish Government's target is to deliver 20GW of additional renewable electricity. Scotland is also transforming our main energy using sectors, heat in buildings, transport and electricity, to ensure our energy needs are met through renewable sources; targeting that at least 50% of generation in these areas is met through renewables by 2030.

To meet these targets, we need to increase the capacity of the electricity network between Scotland and its reserves of renewable energy, and the rest of the UK.

Scotland is committed to becoming net zero in all greenhouse gases by 2045, with England and Wales committed to net zero by 2050.

What is Net Zero?

Net zero refers to the balance between the amount of greenhouse gas produced and the amount removed from the atmosphere. We reach net zero when the amount we add is no more than the amount taken away. It is important because achieving net zero will make a significant contribution to tackling climate change.

What is Scotland's role?

Scotland is becoming a world leader on net zero; a country where the political and the public appetite for a greener approach for our environment and our economy are converging; and where businesses like ours are leading and innovating the way towards net zero.

Continued rapid growth in renewable energy generation,

both onshore and offshore, places significant pressure on the electricity network or grid and ultimately how energy is stored and delivered to our homes and businesses. By reinforcing the electricity network, with new infrastructure such as the Cross Border Connection, it is acknowledged that this will not only reduce carbon emissions and combat climate change by delivering the electricity where it is needed most, but will diversify the UK's energy mix, reducing the UK's dependence on external energy sources and ensuring we develop a secure and reliable electrical network which meets the country's future energy needs.

Also, through investing significantly in our electricity network, we can boost the local economy by creating jobs and supply chain opportunities, as well as ultimately helping deliver lower energy bills in the long-term by meeting more of our energy needs from our own cheaper, renewable energy sources.

By showing how we're making a swift and just transition to a cleaner and greener future not just a possibility, but a reality, we can get the global buy-in needed to achieve a collective and collaborative response to the ongoing climate emergency as well as securing our country's energy security by providing additional resilience within the UK.



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visit our project website



Why is the project needed?

The National Energy System Operator (NESO) has recommended a series of network upgrade projects for improving the UK electricity network through its Beyond 2030 report.

In preparing this report, the NESO looked at different ways of making the network stronger and more reliable, especially for areas that use a lot of electricity or produce a lot of renewable energy.

One of the areas they identified that needs network improvement is central and southern Scotland, which is why we need to build a new overhead line and a new substation.



March 2024

Beyond 2030

A national blueprint for a decarbonised electricity system in Great Britain

ESO

This will help us move more electricity from the point of generation, such as wind farms, to where it is needed.

SP Energy Network propose doing this by building a new 400kV overhead line between our proposed Gala North substation, to the Scotland/ England border, to a point to be determined.

SP Energy Network's project also integrates onshore renewable generation via a proposed new substation at Whitrope. Additionally, there is currently in excess of 1GW of generation activity in the Gala North area, which is closely co-ordinated with the Cross Border Connection.

The Cross Border Connection will also bolster energy supply resilience and security ensuring that UK energy systems are robust, reliable, and capable of withstanding and quickly recovering from future disruptions.



Project overview

The proposed overhead line would be between 75km and 85km, running from the proposed Gala North Substation to a point at the Scotland-England border, south of Newcastleton. The line would connect to the new proposed Teviot Substation, which would potentially be located close to Whitrope. The proposed overhead line would use a 400kV double circuit line supported by steel lattice towers, examples of which are shown below.

There three elements to the proposals:

Construction of a new double circuit 400kV overhead line, running north-south from Gala North Substation to Teviot Substation.

Construction of the Teviot Substation.

Construction of a new 400kV overhead line running from Teviot Substation to a point at the border.

Full versions of the maps are available on the website



Overhead Line

The proposed towers along the route will have three arms on each side, and each arm will carry a set of conductors.

These towers will be made of galvanised steel. They are grey in colour and become duller in appearance after about 18 months.

The standard height of the proposed towers will be around 50 metres but can go up to 61 metres where required to ensure electrical safety clearance to the ground. They will be placed between 200 and 300m apart. The exact height and distance between them will vary depending on the landscape and any obstacles such as roads, rivers and railway line.



Teviot Substation

The proposed Teviot Substation will be located close to Whitrope, approximately 13km south of Hawick. The actual footprint of the substation will depend on the final design and layout of its several elements.

Within substations, specialised equipment facilitates the transformation, or 'switching,' of voltage levels. This process involves using transformers positioned within the substation's premises to either step up or step down the voltage as required.

The switchgear technology to be used within the proposed Teviot Substation is subject to detailed design and evaluation.

Identifying route options

To choose the best route, we worked with our specialist team as well as environmental experts. From these studies, we looked at different options for where to put the new overhead line and the new substation.

We compared the potential options for a route based on how they would affect key issues for local residents such as: impact on scenery, proximity to properties, the environmental impact including local wildlife, trees and rivers, the local history as well as historic land use.

In this consultation we are seeking feedback on the option that we think is the best balance between our technical needs for the route, the impact on the environment and local residents, as well as cost.

To assist residents in making an evaluation in our processes and for transparency, we have further maps and documentation to show how we arrived at our preferred option and the other options we considered. You can find them on our project website.

Full versions of the maps are available on the website

Scan the QR code to visit our project website

Preferred route description

The preferred route option is around 80km long located entirely within the Scottish Borders. It is proposed to be routed southwest from the proposed Gala North Substation crossing the River Tweed approximately 6km to the east of Innerleithen. It continues south/southeast over the Tweedsmuir Hills in the Southern Uplands routing over steeply undulating ground including crossings of the Yarrow Water and Ettrick Water.

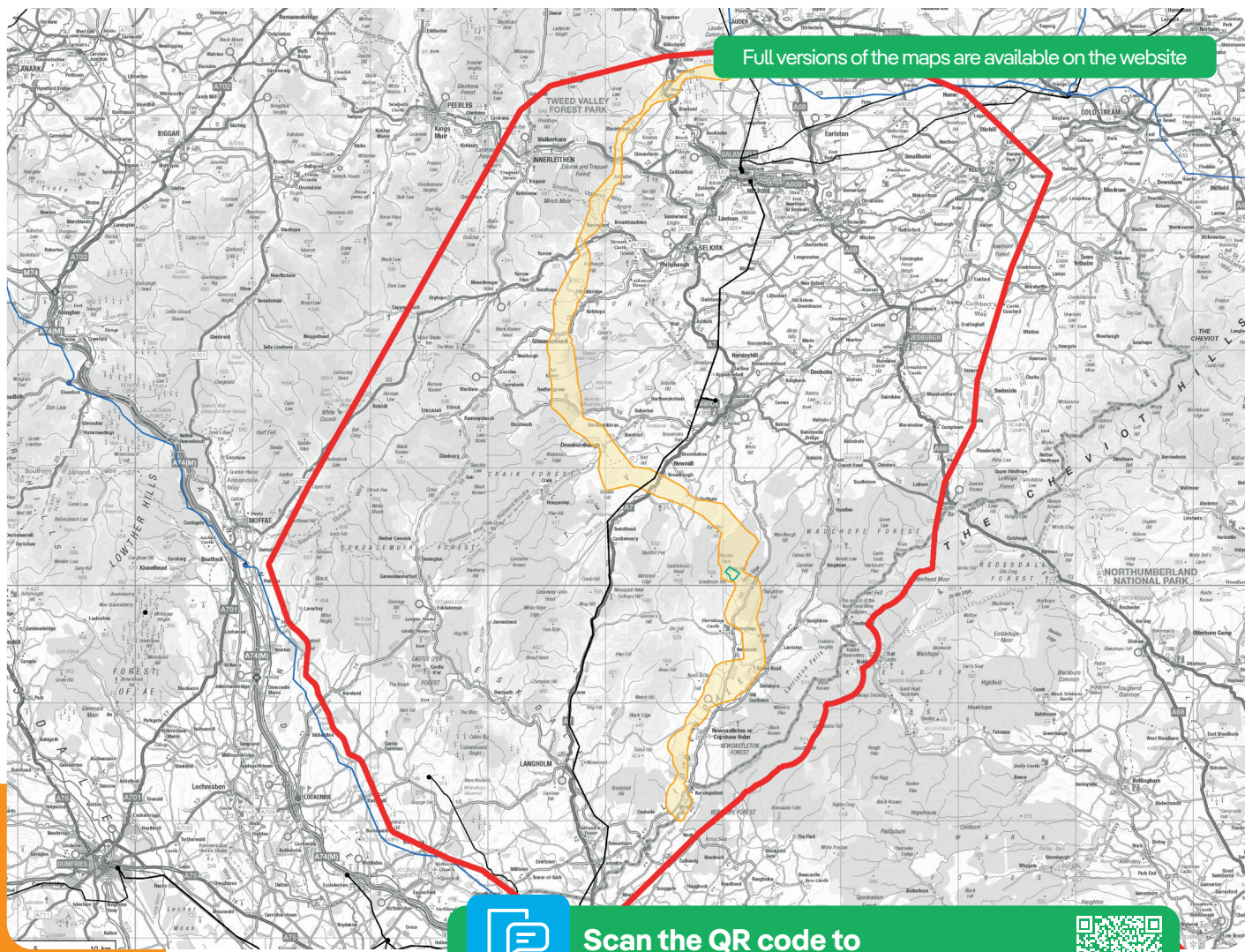
The route is intended to cross the A7 and River Teviot in a southeastern direction approximately 6km southwest of Hawick.

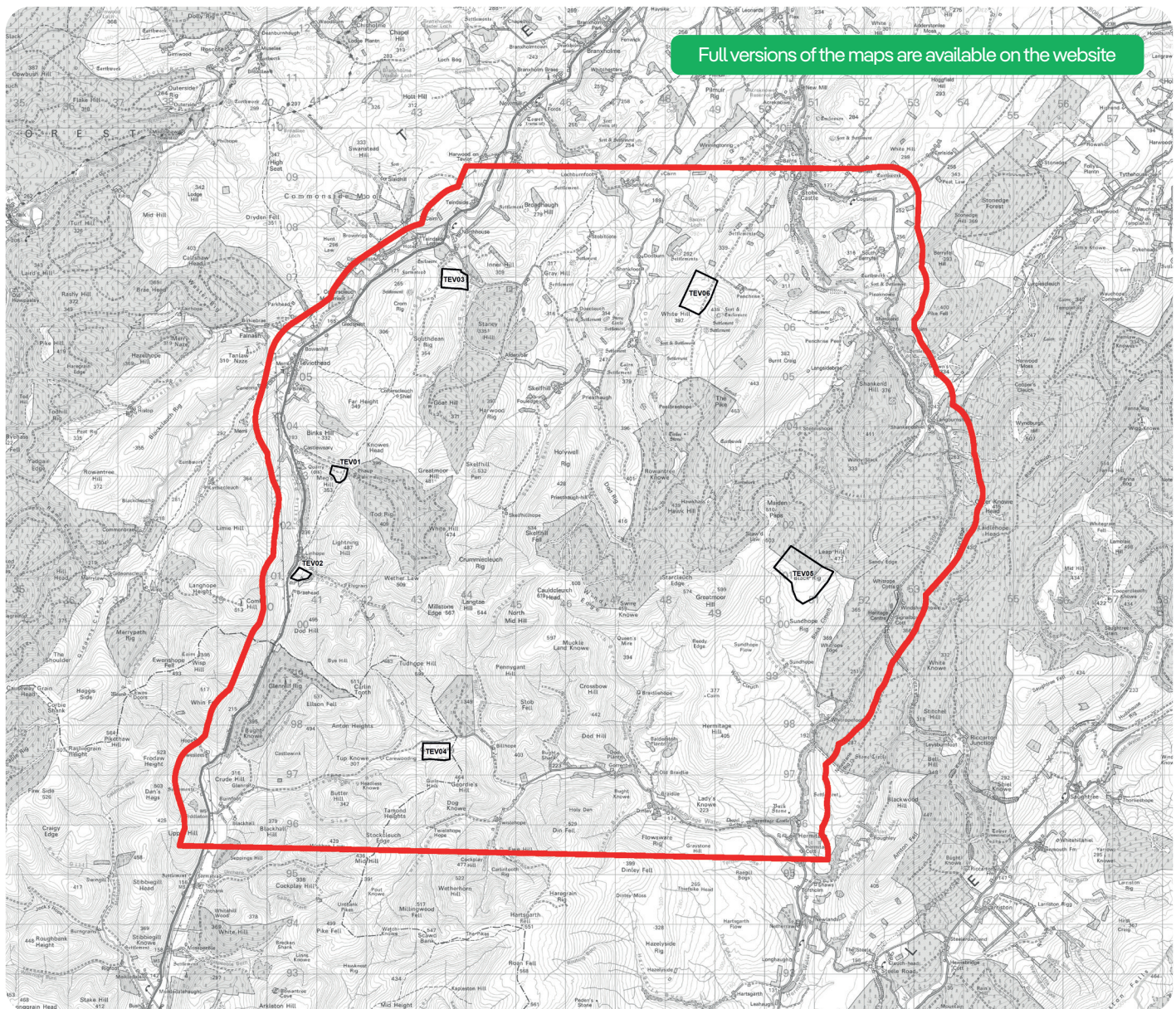
It then continues through the western part of Wauchope Forest to the proposed new Teviot Substation located to the east of the proposed Teviot Wind Farm,

approximately 2km northwest of the B6399 close to Whitrope.

From the proposed new Teviot Substation, the preferred option continues south along the western slopes of Liddel valley to the west of Newcastleton until it reaches the Scotland-England border south of Kershopefoot.

Before progressing to the design stage, the preferred route will be reviewed taking into account consultation feedback and National Grid Electricity Transmission's Routing and Siting process (including non-statutory consultation) to ensure alignment at the border.





Identifying potential Teviot Substation site

In deciding where to place the substation, we found six possible locations in this area that we believe would lead to minimal impact on the environment or the people living nearby, and that would work well for our electricity needs as well as meeting statutory requirements.

The actual footprint of the substation will depend on the final design and layout of its several elements. In addition to the footprint, land would be required for the temporary construction facilities such as site offices, storage and laydown areas. These considerations will be taken as the SP Energy Network's Project progresses and as we identify potential sites using the initial red line boundary

site as our basis for these additional land requirements.

Ultimately, we settled on our site choice for a balance of factors. The preferred site is comparatively flat which is beneficial for construction and large enough to accommodate the substation without needing to move large quantities of earth, avoiding traffic pressures for local residents. The site is also close to where the power comes from, and accessible by road.

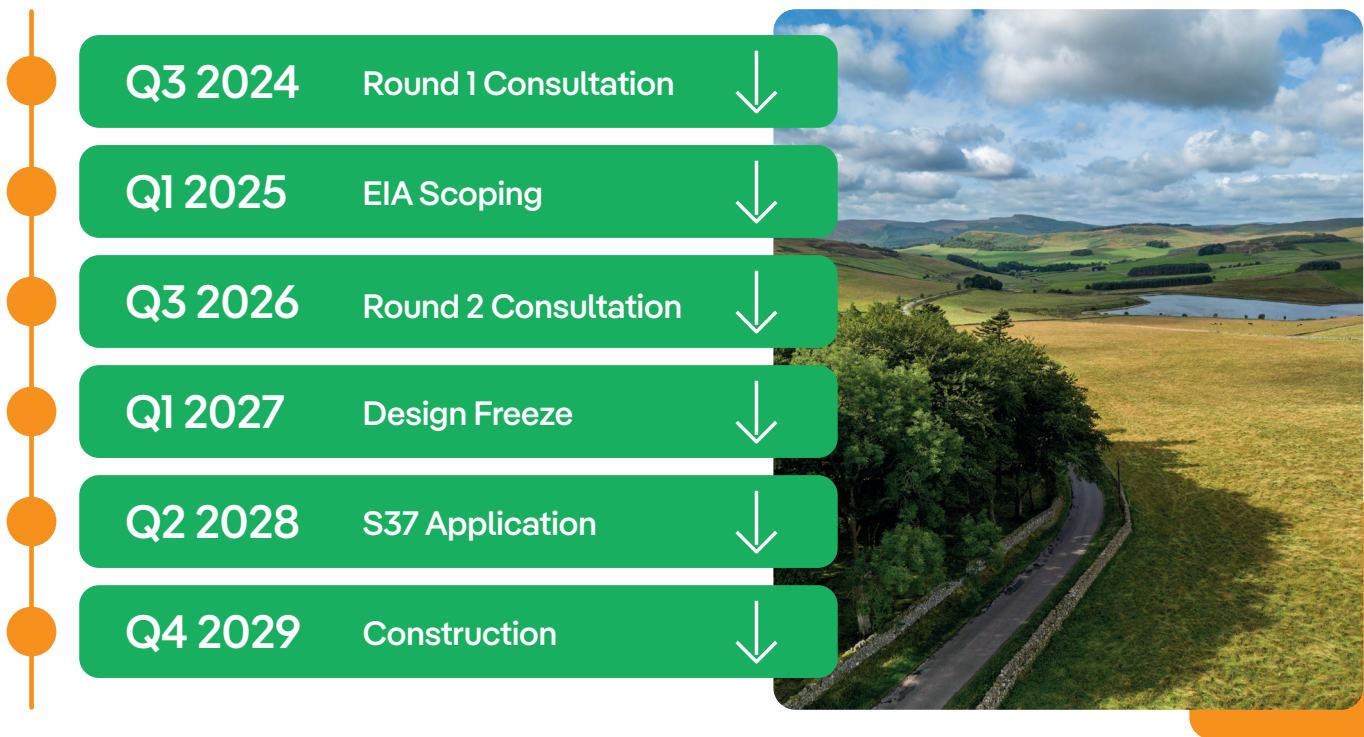
There is also additional commercial forestry around the site, which will provide some screening, reducing any visual impact on the local area.

Consultation process

We are planning two rounds of public consultation before we submit our consent applications to the Scottish Government Energy Consents Unit.

- 01** | This first round of consultation, from 23rd September to 28th October 2024, is to seek people's views on our preferred route for the proposed new overhead line, and where the new line might go within that route.
- 02** | Following this first round of consultation we will develop a detailed design and alignment for the proposed new overhead line, including locations for towers, access routes and working areas. We will publish a report summarising the feedback received in this first round of consultation and how this has influenced our proposals.
- 03** | We will then carry out a detailed Environmental Impact Assessment and hold a second round of public consultation, so that people can give us their views on the detailed route alignment.
- 04** | After considering feedback received in the second round of consultation, we will finalise our proposals and submit consent applications to the Scottish Government's Energy Consents Unit, for consideration by the Scottish Ministers.
- 05** | The Scottish Ministers will then undertake a final round of statutory consultation before making any decision on our applications.

Gala North to Scottish Border Project timeline



Getting more information and providing your feedback

We will be holding an online virtual public consultation via our dedicated website. You will be able to view physical consultation materials at the following locations:

Tuesday 24th September

Traquair Village Hall (10am-1pm) ; Walkerburn Village Hall (3-7pm)

Wednesday 25th September

Newcastleton Village Hall (3-7pm)

Thursday 26th September

Hermitage Village Hall (10am-1pm)

Monday 30th September

Lauder Public Hall (10am-1pm) ; Stow Town Hall (3-7pm)

Tuesday 1st October

Teviothead Village Hall (10am-1pm) ; Forman Memorial Hall (3-7pm)

Thursday 3rd October

Kirkhope Parish Hall (10am-1pm) ; Yarrow Hall (3-7pm)

Monday 7th October

Hawick Town Hall (10am-1pm) ; Caddonfoot Village Hall (3-7pm)

You can also share your views by phone on **020 3861 3742**, or email us at **info@crossborderconnection.co.uk**
Visit the project website: **www.spenergynetworks.co.uk/pages/cross_border_connection.aspx**

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

Please note that any data collected through your consultation feedback will only be used to help understand views regarding the Cross Border Connection. The data will not be used for any other purposes. The data will be collated and analysed to help in the reporting of consultation feedback.

SP Energy Networks is committed to respecting your privacy and will comply with all applicable data protection and privacy laws. We're consulting you to get your views on the proposed Cross Border Connection, so we may need to share your information with certain other bodies for the purposes of the consultation and for creating reports. These are: other ScottishPower Group companies; National Grid, third party service providers, contractors or advisors who provide services to us; relevant planning authorities.



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