



Getting Connected

How to apply for a connection to the SP Transmission Network

An introduction to **SP Energy Networks**

We provide electrical power on behalf of the electrical supply companies. We do this through the network of cables and overhead power lines we own and maintain.

We're part of the ScottishPower Group of companies. Through our transmission network we provide electrical power to:



- **SP Transmission plc (SPT)**, serving customers in Central and Southern Scotland.

If you need a Transmission Connection to our network, our teams will work with you to create an economic and efficient connection for your project.

You will find out more about how the transmission connection process works in this leaflet.

We also have two distribution networks:



- **SP Distribution plc (SPD)**, serving 2 million customers in Central and Southern Scotland



- **SP Manweb plc (SPM)**, serving 1.5 million customers in Merseyside, Cheshire, North Wales and North Shropshire

We are dedicated to delivering a safe and reliable electricity supply to all our customers, 24 hours a day, every day of the year.

You can find out more information by visiting our website
www.spenergynetworks.co.uk





Our transmission network

SP Transmission plc (SPT) owns and transmits electricity in Central and Southern Scotland. We take electricity generated from power stations, wind farms and other sources, then transport it over our transmission network.

Our network covers an area of outstanding renewable resource – this means we play a vital part in helping to deliver the UK Government's renewable energy targets. We have a unique role in connecting renewable energy generation and bulk transfer of renewable electrical energy from Scotland into England and Wales, benefiting customers and stakeholders well beyond our licence area.

Our transmission network in numbers

4000km
of overhead lines



603km
of underground cable



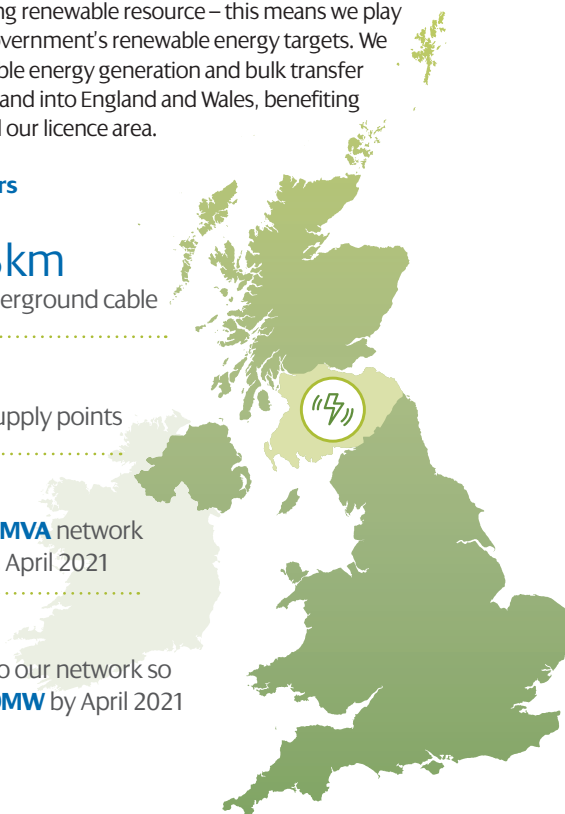
150
substations and **103** grid supply points

2,002MVA

current network capacity, with **3,482MVA** network capacity expected by end of **RIIO-T1**, April 2021



1500MW
of generation connected to our network so far, with a forecast of **1620MW** by April 2021



Getting connected – who does what?

As the Transmission Owner in Scotland, we provide services to National Grid Electricity System Operator Ltd. They, in turn, are the electricity System Operator for the UK.

The System Operator - Transmission Owner Code (STC) sits at the heart of getting you connected, and provides the framework for both organisations to work closely with each other. The code governs our interactions and processes to make sure we deliver the right outcomes for our connecting and connected customers.

SP Transmission – our responsibilities

We maintain, design, develop and deliver new or modified connections to our network. We operate under a licence from Ofgem to make sure our activities are regulated, our charges are clear and transparent, and that we provide the best possible service to our customers in connecting, securing and maintaining electricity supply.

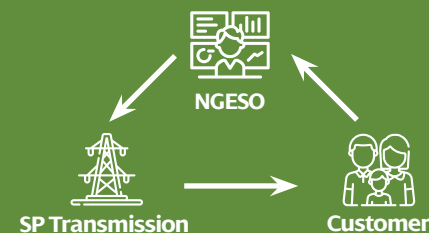
National Grid Electricity System Operator (NGESO) – their responsibilities

NGESO is the System Operator. They provide transmission services to generators, electricity suppliers and large customers, and deals with contracts for the connection to the electricity transmission system. NGESO also deals with how the electricity transmission system is used, making sure the entire UK transmission system is stable and secure, including balancing the electricity demand across the whole of Great Britain with electricity supplied by generating stations.

How to connect to the GB Transmission System

Customer

This may mean you. Generally, we interpret a customer to be any business, individual or other party looking to gain access to the GB Transmission System. Although you will be entering into a contract with NGESO, remember that SP Transmission will work with you to strive to make sure you meet your project ambitions.



The application process at a glance

You will have a contractual agreement with National Grid Electricity Transmission. However, SP Transmission is responsible for developing the design and construction of the assets you need to connect to our network. Here's how the process works:

1. Before you apply

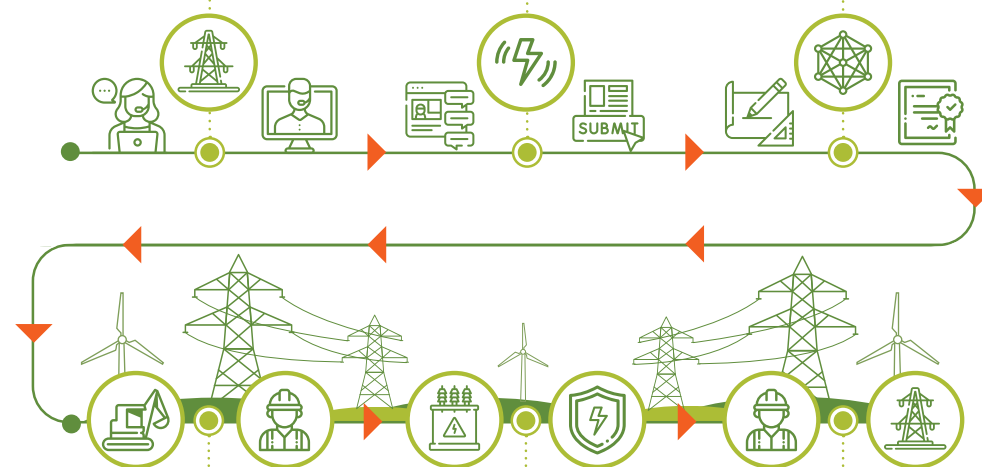
Get in touch with SP Transmission to discuss your connection. You can visit our website and register on our Connections Portal where you will find lots of information on Connecting to our Network. Complete our Pre-Application Customer Engagement (PACE) request form to tell us about your project. We can then prepare some indicative guidance on the type of connection we could offer prior to holding a Pre-Application meeting with you. You may also want to contact the National Grid Electricity System Operator as well as contacting us.

2. Apply

You'll apply to National Grid Electricity System Operator – the tools and guides at nationalgridnet.com/connections are a good place to start.

3. Design your connection

National Grid Electricity System Operator will ask for a design and cost to connect your development to our network. Once that's agreed, SP Transmission will send National Grid System Operator a Transmission Owner Construction Offer – or 'TOCO'. This TOCO will form the information that goes into the connection contract issued to you by the NGENSO for your acceptance.



4. Making your connection

We will design, consent and tender the scope of works, then start construction of our works.

5. Commissioning your plant

We will make sure your equipment is ready to operate on the system.

6. Keeping you connected

Over time, your plant will need maintenance – and so will ours. We're here to help. We're also here when you eventually need to disconnect.

What **connection** and **agreements** do you need?

Direct Transmission Connection

This generation or demand connects directly to the SP Transmission network, typically at 132KV and above.

Distributed Generation Connection

This generation connects to the SP Distribution network. If SP Distribution identifies that your Distributed Generation Connection will have an impact on the transmission network, they will apply to the System Operator for a full assessment.

Are you a generation customer connecting over 30MW?

If you are applying to connect to the SP Energy Networks Distribution network you will need one of these agreements in place with National Grid:

- A BEGA (Bilateral Embedded Generator Agreement)
- or
- A BELLA (Bilateral Embedded Licence Exemptible Large Power Station Agreement).

More on BEGA and BELLA from National Grid

Are you a generation customer connecting under 30MW?

If you are applying to connect into the SP Energy Networks Distribution network, you'll normally only have a contractual relationship with SP Energy Networks – except if you want access rights to the transmission network.

If your connection will affect the SP Transmission network, we will submit a Statement of Works Project Progression application to National Grid.

Not sure what type of connection you need?

Email transmissionconnections@spenergynetworks.com and we will help you work through your options.



Your **connection** offer explained

Here are the three main factors we take into account when we develop a connection offer:

1. Design

Our licence obligations states we must design and operate the network in an economic, coordinated and efficient way. We also need to make sure your design meets industry standards – this allows us to operate and maintain our network, and maintain the security of supply for all our customers. Part of your offer may refer to Transmission Owner Reinforcement Instructions (TORIs). These are transmission infrastructure works that may be needed before we can make a connection – our Stakeholder Reports have more information on TORIs.

2. Costs

To give you indicative costs, we use concept engineering design assumptions and prices from recent tender submissions. We will make sure you have updates on costs throughout the project, and we will reconcile the final costs with you when your project is complete. Our costs are transparent – you can find them on our [Charging Statement](#).

3. Programme

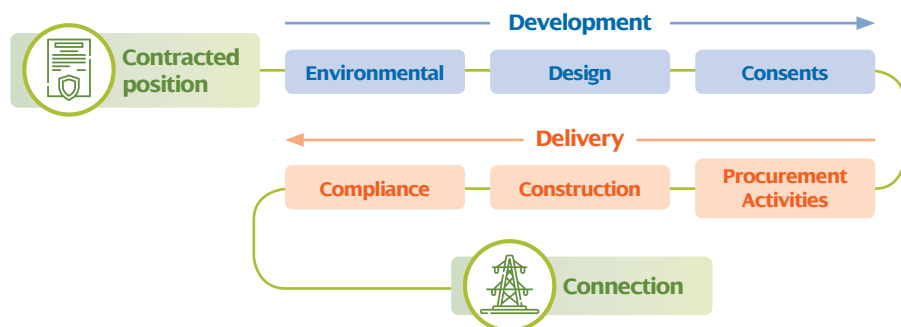
Once we have technical approval of our design, we will build a programme around the scope of works required. This programme will include connection assets and Transmission Owner Reinforcement Instructions works.

Here's an example of a typical programme building block for a 132kV overhead line project:

Project task	Signed off	Financial sign off	Project delivery strategy		Preliminary engineering design	Detailed engineering design		Invitation to tender (typically civils)	Contract award (typically civils)	Site access	Commission
Consents task				Place environmental contract	Landowner agreements	Submit S37	Receive S37				
	2 months							2 months	8 months		19 months
Time			4 months		32 months	12 months					
	82 months (6 years 9 months)										

The connection process explained

There are two parts to getting you connected: development and delivery.



Development

This involves placing environmental and design contracts – as well as surveys such as utility searches, earthing studies and a geotechnical survey. Once we have completed the strategy and planned the full construction sequence, we will complete a detailed design. At the same time, we will apply for consents before we complete your tender documents. We will always process these as quickly as possible, working with all required stakeholders (including landowners, government and other regulatory authorities) to get their consent on what is required for your connection.

Delivery

It is important we obtain the most efficient cost, and avoid exposing you to potential abortive costs when the project is still in development. That is why we issue the tender documents and award contracts once all the consents are in place. We then pass cost efficiencies to you using the out-turn costs detailed in the contract. And, by taking advantage of Iberdrola's global purchasing, we can gain further savings for you.

The procurement process for your connection follows the same rigorous standards as our regulated investment works. We will manage the construction of your connection through all site works, including the NGEsO compliance process for connecting to the transmission system.



Keeping you informed and involved

We are here to support you throughout the entire connection process. Here's how:

1. Before you send your application

You don't need to have a live application to get support from us. Simply get in touch, complete our Pre-Application Customer Engagement (PACE) request form and we will arrange a call or a meeting. We will aim to give you an initial view of what your project will require – and what the connection might look like.

2. Once you receive your offer from the System Operator

We will answer any questions you have about your offer, and work with you to find opportunities to get the most from the design. There can be many options to consider, and we're here with you at every step – for example, an underground cable could replace an overhead line, or you might be able to share a solution with another party.

3. Reviewing your portfolio of connections

The SP Transmission team can meet with you every quarter to share progress on your connection and generation sites, shared enabling works, and other updates. You can also view your projects progress anytime on our Connections Portal, simply register via our website.

4. Development interface meetings

These meetings vary from project to project, but can include earthing arrangements, provision of low voltage supply, design requirements for access, platforms, build specifications, landowner issues and legal agreements.

5. Construction interface meetings

Every month, we will meet with you and NGEsO to discuss the milestones, risks, contract changes and actions related to your project.

6. Commissioning meetings

We will discuss the procedure for commissioning a new or modified connection, or connecting a new infrastructure asset to the Transmission Operator's Transmission System. We will also outline everyone's responsibilities and requirements. These meetings usually start six months before your connection date.

7. Compliance meetings

Before your connection to our Transmission System is complete, this is a chance to exchange information about compliance requirements, data standards and communication – between you, the System Operator and SP Transmission. Again, these meetings usually start six months before your connection date.

Need advice or support? Just ask.
transmissionconnections@spenergynetworks.com

