SP Energy Networks community support

A guide to getting your community energy scheme connected

A plain-English guide for community energy groups seeking generation and/or demand connections with SP Energy Networks.

SP Energy Networks

About this guide

About SP Energy Networks

SP Energy Networks is a UK Transmission and Distribution Network Operator, responsible for delivering electricity to homes and businesses across Central and Southern Scotland, North and Mid Wales, Merseyside, Cheshire and North Shropshire. It operates three regulated network businesses – SP Transmission plc, SP Distribution plc and SP Manweb plc. As the only network operator serving all three UK governments, SP Energy Networks plays a key role in supporting the UK's transition to net zero, with targets set for 2045 in Scotland and 2050 in England and Wales.

About Regen

Regen provides independent, evidence-led insight and advice in support of our mission to transform the UK's energy system for a net zero future. We focus on analysing the systemic challenges of decarbonising power, heat and transport. We know that a transformation of this scale will require engaging the whole of society in a just transition.

About Community Energy Scotland

Community Energy Scotland is an independent Scottish charity and membership organisation. They work with communities and partners to support, promote and represent the community energy sector. They do this by providing technical assistance, knowledge sharing and championing the role of community-led action in the transition to a low-carbon future.

Acknowledgements

We would like to express our sincere appreciation to all those who contributed to the successful completion of this report.

SP Energy Networks

Purpose of this guide

This guide is for those developing community energy generation and demand projects who want to connect to SP Energy Networks' electricity network.

This guide focuses on the connections application process and provides advice and guidance to help community groups navigate the complexities of getting connected to the electricity grid.

We define community energy projects as those owned and led by a local community organisation or partnership, for the benefit of local citizens and wider social outcomes. We know that community energy organisations participate in a wide variety of projects, from installing solar on domestic roofs through bulk-buying schemes to megawatt-scale wind, solar and hydropower projects.

This guide will take you step by step through our connections process to help you:

- Understand the process, timescales and costs associated with obtaining a grid connection
- Access the right application forms and the information you'll need to fill them in
- Know how to contact us so we can help you throughout the process
- Know where to access further information where necessary.

SP Energy Networks

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SP Energy Networks

1.

Introduction

What is community energy, how does the UK's electricity network work and who are SP Energy Networks?

What is community energy?

Across the UK and beyond, more and more communities are taking energy into their own hands – not just as consumers, but as active participants in how energy is generated, managed, consumed and shared. This growing movement, known as community energy, is built on collective action, with an emphasis on local engagement, leadership, ownership and benefit. Community-led initiatives are often well placed to tackle challenging issues around energy, drawing on local knowledge and bringing people together with a common purpose.

The government's definition is a helpful guide for understanding whether your project would be classified as a community energy project.

"Community energy projects involve groups of people coming together to purchase, manage, generate or reduce their consumption of energy. This includes (but is not limited to) solar panels, wind farms, hydro power, rural heat networks, electric vehicle charging points, car clubs and fuel poverty alleviation schemes. Programmes are usually not-for-profit, and profits raised from projects are reinvested back into the communities which they power."

There are many examples of community energy projects across the UK, with hundreds of community groups undertaking energy initiatives in the last few years. Some examples of community energy projects we, as SP Energy Networks, have supported in our network area include:

- Community-owned renewable electricity installations, such as solar photovoltaic (PV) panels, wind turbines or hydroelectric generation
- Members of the community jointly switching to a renewable heat source, such as a heat pump or biomass boiler
- A community group supporting energy saving measures, such as the installation of cavity wall or solid wall insulation
- Working in partnership with us to pilot smart technologies
- Rural businesses developing energy projects with a strong local and community benefit.

SP Energy Networks

Introduction (cont.)

How the UK's electricity network operates

The electricity network in the UK was originally built to carry electricity one way – from large power stations, through the high-voltage transmission network, to homes and businesses through the distribution network.

In the last 20 years this has started to change, driven by decarbonisation goals, the declining cost of renewables, government incentives and community interest in energy autonomy. Now, electricity can be generated almost anywhere, with the introduction of small-scale generators (like solar panels and wind turbines) that connect directly to the distribution network. This means that there are now more connections to the network than ever, and electricity generation is more geographically distributed than it was previously. This is known as 'distributed generation'.

What's really changed with distributed generation is where generation happens and how many sources are feeding into the electricity network. Rather than a one-way flow, the system is now much more dynamic, with power moving in multiple directions depending on demand, supply and location.

There are various ways small-scale generators can be connected to the network:

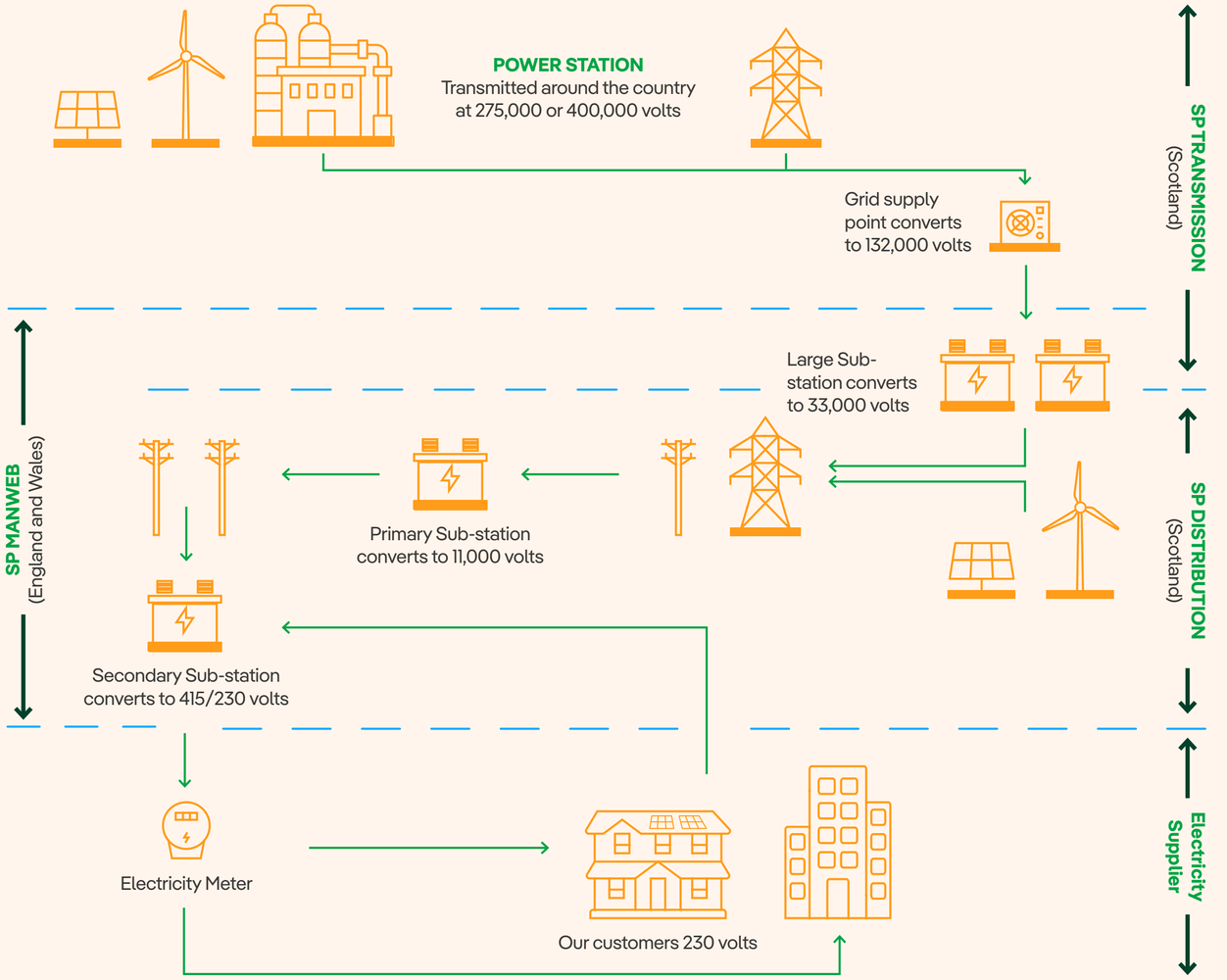
- Utilising an existing electricity connection
- Making changes to an existing electricity connection
- Or by installing a brand-new electricity connection.

Most community energy projects are connected to the distribution network rather than the transmission network. This is because they tend to be smaller in scale and more localised, making distribution the logical, cost-effective and technically appropriate connection point. Larger scale projects, generally those over 5 MW, are likely to require a connection to the transmission network and, if your project fits into this category, you may want to consider exploring the transmission connection process alongside the distribution connection process outlined in this guide.

Who are SP Energy Networks?

We are SP Energy Networks. As 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 a network of overhead lines and underground cables, which we own and maintain. No matter who you pay your bill to, we're the people to contact if you have a power cut, need a new or upgraded power connection or spot an issue with our equipment.

Figure 1. From power to plug: a summary of how the UK's electricity network works



SP Energy Networks

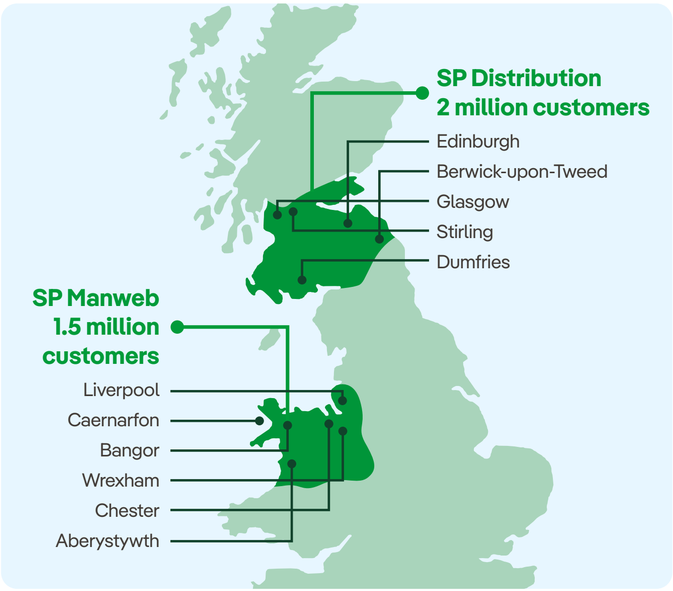
Introduction (cont.)

Our three regulated electricity businesses are:

- SP Transmission plc (SPT), responsible for the transmission network in Central and Southern Scotland
- SP Distribution plc (SPD), responsible for the distribution network in Central and Southern Scotland
- SP Manweb plc (SPM), responsible for the distribution network in North Wales, Merseyside, Cheshire and North Shropshire.

As the only network operator to serve communities across England, Wales and Scotland, we are helping to lead the UK's journey to net zero, understanding that community energy is key to helping local communities join this transition.

Figure 2. UK map highlighting where SP Energy Networks operates



How are we governed?

We are regulated by Ofgem (the Office of Gas and Electricity Markets). Ofgem ensures that energy providers like us follow the rules set by the government to keep the energy market fair and efficient. They oversee our operations and make sure we deliver safe, reliable and affordable electricity to homes and businesses.

Working with community energy groups

We aim to give community groups the support, resources and expertise they need to succeed. This includes helping them understand the energy system, accessing key information, capacity building and technical assistance. We work together, valuing the unique strengths and local knowledge that community groups bring. We are committed to building long-term partnerships, encouraging open dialogue and working together to overcome challenges and unlock the full potential of community energy.

You can find more information here:
Our Distribution Network - SP Energy Networks.

We operate in three of the UK's largest cities (Liverpool, Glasgow and Edinburgh), accounting for 1.6 million people (43% of our customers), as well as three significant rural areas (North Wales, Scottish Borders and Dumfries & Galloway).

Figure 3. SP Energy Networks' six Scottish districts

In Scotland, we have six districts: Ayrshire & Clyde South, Glasgow, Edinburgh & Borders, Central & Fife, Lanarkshire, and Dumfries.

Figure 4. SP Energy Networks' five English and Welsh districts

In England and Wales, we have established 5 districts: North Wales, Dee Valley & Mid Wales, Merseyside, Mid Cheshire, and Wirral.

SP Energy Networks

2.

A summary of the connections process

An overview of connecting to the grid, from start to finish.

Is your project a generation or demand technology?

- Generation technologies are those that generate electricity and feed this into the electricity network. Common types of community energy projects in this category include rooftop solar PV, onshore wind and hydropower.
- Demand technologies are those that need electricity to operate, drawing power from the electricity network. Common types of community energy projects in this category include electric vehicle (EV) chargers and heat pumps for community buildings.

Do I need to connect to the grid?

Most community energy electricity generators need some kind of network connection if you want to export electricity beyond your own site. For example, you'll need a network connection if you want to sell surplus electricity to the grid or want to be eligible for certain payments (like the Smart Export Guarantee). The type of network connection you need depends on the size and type of technology you want to connect.

If all the electricity you generate is to be used onsite, then you won't need a grid connection. But this is rare for community projects and usually only suited to remote off-grid renewable generators powering a single site, or a microgrid supplying a small private network (like an island community with no mainland link).

If you want to install a demand technology that will require more power than onsite generation can provide, then you will need to connect to the network. For example, if you have EV chargers that primarily use electricity from an onsite solar PV array, you are likely to still want a grid connection to ensure the chargers can be used on cloudy days and at times when demand from the chargers exceeds generation from the solar panels.

The connections process

The connection application process can be broadly divided into five steps for both generation and demand projects. Within each step, there are several key activities and pieces of information you will need. Table 1 gives a high-level overview of these. Each of these steps is covered in more detail in later sections of this guide.

A summary of the connections process (cont.)

Table 1. Key activities and information checklist for each stage of the connections process

Stage	Key activities	Key information you will need at this stage
1. Start planning your project	• Use this guide and the other resources signposted throughout to learn about the connections process, and ensure you understand the proposed connection size for your project(s). • We have several online tools designed to empower and inform community groups. You can use our heatmaps to check where there is capacity on the network for you to connect in your local area. You can also use our Budget Estimate tool to see what the potential connection cost of your project might be before you start a formal application.	
2. Pre-application	• Engage with us and speak to our network planning team about your project so we can talk to you about potential connection options and answer any questions you might have about the process. Details of how to contact our connections team can be found here. • At this stage, you can also talk to us about our two other quote options for your project(s): a feasibility study and our Quote+ option if you'd like a more detailed assessment of the potential cost to connect your project to the grid. • You can also check if you will be charged for your connection application and whether this is affordable.	• Site location and layout plan • Estimated load or generation capacity • Planning status (e.g. submitted, approved) • Land ownership or Heads of Terms agreement.
3. Formal application	• Complete and submit the relevant application form, and we will use the information you provide to make a detailed assessment of the impact your project will have on the network and then prepare your connection offer.	• Completed SP Energy Networks' application form • Single-line diagram (for generation projects) • G99/G98 documentation (more details in the Generation connections section on page 12) • ICP engagement (if using contestable works).
4. Receiving your connection offer	• The time it takes to receive your formal connection offer depends on the type of project and the work required to make the connection. In line with Ofgem's guaranteed standards, you will receive your offer between 5 and 65 working days after submitting your application for demand connections and between 45 and 65 working days for generation connections. (Timescales are dependent on the type of connection and you can find more information here). • You will need to review your offer, with external advice if necessary. Your connection offer will be valid for a period of three calendar months from the date of the offer. You will need to decide whether to accept the offer within this timeframe. • At this stage, you'll need to consider the elements of contestable and non-contestable work and put an adoption agreement in place if appropriate. (Contestable works are the parts of the construction work required to connect your project that is open to competition, whereas non-contestable work can legally only be carried out by the Distribution Network Operator.)	• Payment of deposit • Legal agreements (wayleaves, easements, etc) • Final design approval • Construction schedule confirmation.
5. Construction and commissioning	• Work with us to negotiate the land rights for any equipment you want to install. • Ensure you have metering arrangements in place. • And, finally, for generation technologies, you'll need to provide us with the data we need on the final parameters of the equipment.	• Metering arrangements confirmed (Half-Hourly (HH) or Non-Half-Hourly (NHH)) • Export limitation scheme (if required) • Witness testing (if applicable) • Commissioning certificate.

3.

The connections process: pre-application

What you need to know about your technology, the different connection processes and the costs associated with connecting to our network before you apply.

The route you take through the SP Energy Networks connections process is largely dependent on the size and type of technology you're trying to connect. Ensuring you have a few key pieces of technical information to hand will help you identify what type of connection you are likely to need and the specific connections process you will follow, and it will help our engineering teams to assist you.

Many community energy groups hire and work with external consultants to guide them through the connections process and, in some instances, to liaise directly with us due to the technical nature of a connection application. You might want to consider whether this is something that would be beneficial for your project.

SP Energy Networks' network planners are on hand to offer support throughout all stages of the connections process, including before you have even applied. If you're not sure about any of the steps in the pre-application process, including which specific connections process you'll need to follow, we're available to guide you through this. For more information on how you can get in touch with the SP Energy Networks planning team, see Section 7 of this guide ('How to engage with SP Energy Networks') on page 26.

Amperage of your project per phase

For both a generation and a demand connection, you will need to know the amperage of your project per phase before you get started. Amperage refers to the amount of electricity flowing through a circuit, similar to the amount of water flowing through a pipe. In this case, the amperage is the amount of electricity passing between your project and the network. This is an essential piece of information that determines the specific connection application route you'll need to take.

Firstly, find out the size of the generator or the demand technology you are hoping to connect in watts (W), kilowatts (kW) or megawatts (MW) – which is the unit for power. For example, a domestic solar installation could be a few panels adding up to 3.6 kW, a small solar farm could be 500 kW, and a larger wind turbine could be 5 MW.

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The connections process: pre-application (cont.)

Secondly, you'll need to determine whether your site is served by a single-phase supply or a three-phase supply. Single-phase supply is generally used for lower capacity, such as homes and small businesses, while commercial and industrial facilities are fitted with a three-phase supply (although some networks have recently been installing three-phase connections in domestic properties to prepare for the increase in heat pumps and EVs).

To confirm whether you have a single-phase or a three-phase connection, you can:

- Look at your electricity meter – single-phase supplies will have one main fuse and one live cable entering the meter, while three-phase supplies will have three main fuses and three live cables entering the meter.
- Look at your electricity bill, which may list the phase type.
- Ask our customer service team and give them your MPAN (Meter Point Administration Number), and we can confirm for you.

Typically, community energy projects fit into one of two categories: projects that are less than 16 amps (A) per phase and projects that are over 16 A per phase. We need to know if your project is above or below 16 A per phase to ensure you apply for the correct connection. You can ascertain this by taking the capacity of your project in kW and dividing by the number of phases. For a single-phase supply, divide your installation size in kW by one. For a three-phase supply, divide your installation size by three. Alternatively, a simple rule of thumb is:

- If your site is:
  - 3.68 kW or less and connected to a single phase, or
  - 11.04 kW or less and connected to a three phase,
  - Then it is less than 16 A per phase.
- If your site is:
  - 17 kW or more and connected to a single phase, or
  - 50 kW or more and connected to a three phase,
  - Then it is over 16 A per phase.

If your project is over 16 A, then it may be eligible for a fast-track connection and this is outlined in more detail in the G99 application process for generators section (from page 12 onwards).

Generation connections

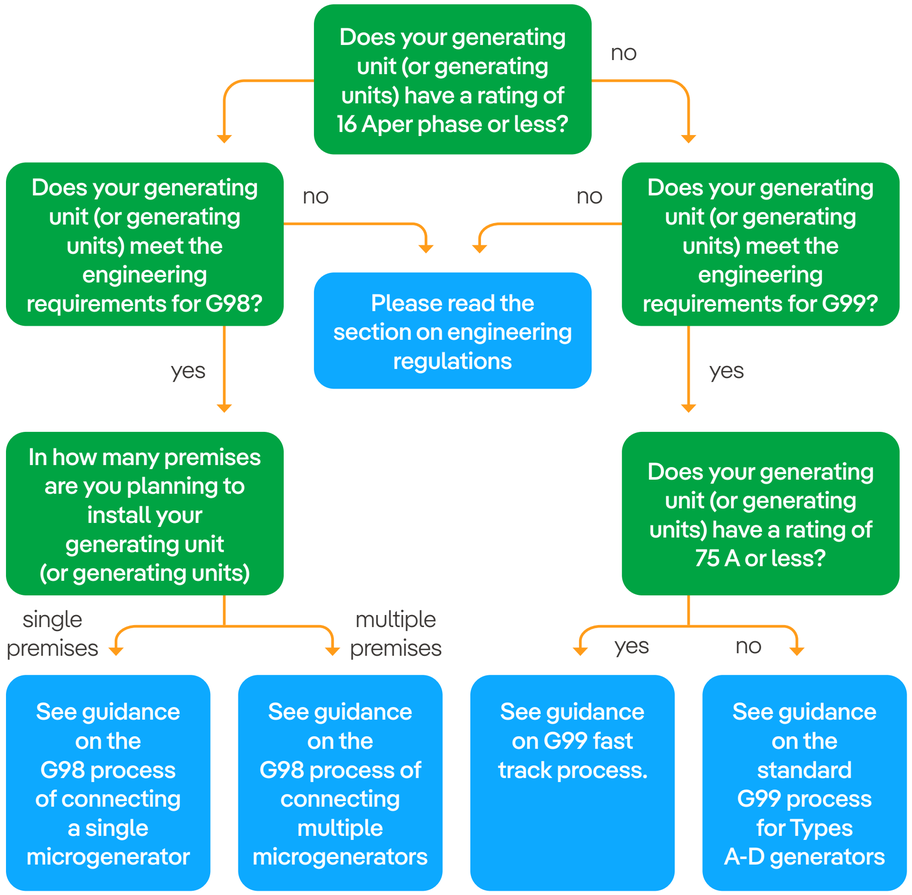
Once you know the amperage of your project per phase, you can determine which engineering recommendation your technology will be governed by. Engineering recommendations, known by the acronym EREC, outline the requirements that a piece of generating equipment must meet to connect to the public network and ensure it is safe and compatible.

As of August 2025, two main engineering recommendations are active for generators. Understanding which one your project falls into will determine which connections process you need to follow.

- EREC G98 is for smaller generators (known as microgenerators) with capacities of less than 16 A per phase.
- All other projects fall under EREC G99.

These regulations are well-understood by installers and manufacturers, although not all installers and manufacturers necessarily adhere to them. We recommend choosing installers and manufacturers who already adhere to these regulations and have type-tested equipment. (Type-testing is an assessment of a piece of technology to verify that its performance meets specific standards and regulations and is suitable for its intended use.) If you choose equipment from a manufacturer or installer that has not been type tested, we will need to independently test the equipment onsite before it is commissioned, and there is a cost associated with this. It is worth clarifying with your chosen installers if their equipment is type-tested against these regulations.

Figure 5. A summary flowchart for generators of the EREC guidance



The connections process: pre-application (cont.)

G98 application process for generators

The G98 application process is for microgenerators, which are small generation projects that are under 16 A per phase. For example, domestic or small-scale rooftop solar typically comes under this classification. The G98 application process has two further sub-categories, depending on whether you have a single microgenerator or multiple microgenerators in close proximity to one another.

To find G98-compliant domestic, low-carbon installers, you can use the ENA connect direct directory.

The G98 application process for a single microgenerator

The process of connecting a single microgenerator to the grid is straightforward and is known as a G98 single application. Generators in this category (which include, for example, individual homes which install solar panels for self-consumption) follow an 'application **after** installation' process because they are likely to only have a small upstream impact on the network.

After you have installed and commissioned your generator, you (or your installer) need to inform SP Energy Networks of the installation within 28 days of it being commissioned. This is a legal requirement and should take less than half an hour to complete. As the customer, you will need to provide a few details, such as your name, postcode and email address.

You can find more about the details you need to provide in the relevant form here.

The G98 application process for microgenerators across multiple premises

When multiple microgenerators are installed simultaneously and in close proximity (such as on a home and its outbuildings), the process of connecting them to the grid is known as a G98 multiple premises application. Generators in this category should submit an application **before** installation.

If you are installing multiple microgenerators within 500m of each other within a 28-day period and with the same installer, you must obtain approval from us before proceeding with the installation, so we can assess the upstream impact on the network.

The installer you use is responsible for completing the 'G98 multiple premises connection' application form and liaising with us. As the customer, you will need to provide a few details such as your name, postcode and email address.

You can find more about the details you need to provide in the relevant form here.

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The connections process: pre-application (cont.)

G99 application process for generators

The G99 application process is for all other generators that do not fit the G98 criteria.

There are two routes you can take: the fast-track application route or the standard application route.

- **G99 fast-track:** If you have a small generation or storage connection above G98 limits but under 75 A per phase, you can fast-track your G99 application.
- **G99 standard:** The standard G99 process applies to all generation or storage connections above 75 A per phase.

The fast-track application route is a simplified version of the standard application route and is designed to reduce the administration burden (for both community groups and for SP Energy Networks) and speed up the approval process.

Types of generators within EREC G99

Within G99, all generation installations are grouped into four types (known as type A, B, C or D) based on their capacity or connection voltage. Each type is governed by specific technical and compliance requirements. Your generator's type determines whether you can use the fast-track or the standard G99 application process.

Table 2. G99 generator types

Type of generator	Registered capacity	and/or	Connection voltage	G99 application route	Examples of technologies in this category
A	0.8 kW to < 1 MW	and	< 110 kV	Fast-track	Most domestic and small-scale commercial installations of solar, batteries and wind
B	1 MW to < 10 MW	and	< 110 kV	Standard	Large-scale rooftop solar, wind farms, industrial generators
C	10 MW to < 50 MW	and	< 110 kV	Standard	Utility-scale solar and wind, large backup generators
D	≥ 50 MW	or	≤110 KV	Standard	Grid-scale power stations, wind farms

The fast-track G99 application process

If your generator fits into the Type A category and is under 75 A per phase, you can use the fast-track G99 application process. For generators that are over 75 A per phase, you will need to use the standard G99 application process.

Within the Type A generator category, there are four further sub-categories which have their own application process under the G99 fast-track umbrella:

- The SGI-1 category is for smaller generators. Each generator must have a capacity of less than 16 A per phase and, where there are multiple generators on the same site, the total capacity must also be less than 16 A per phase. Although this is basically the same as a single small generator within G98 limits, it is handled here within G99 because it's likely part of a larger site.
- The SGI-2 category is for slightly larger generators. Each generator must have a capacity of less than 16 A per phase, and where there are multiple generators on the same site, the total capacity must be more than 16 A per phase but less than 32 A per phase.
- The SGI-3 category is for even larger generators and is usually for multi-device installations. In this category, each generator has a capacity of between 16 A per phase and 32 A per phase, and where there are multiple generators on the same site, the total capacity must be less than 60 A per phase.
- The fourth category within the fast-track G99 application process is for all other generators that fit into the Type A generator category. Typically, these are generators that are larger than the three SGI categories with a rating over 32 A per phase and less than 75 A per phase.

Note: SGI stands for Small Generation Installations.

For more information on the key requirements, application timings and application forms in the three SGI categories and Type A category see Appendix 1 on page 28.

The standard G99 application process

The standard G99 process applies to all Type A-D generation or storage connections above 75 A per phase. You can find all our connection application forms (and other guides) on our website here. If you're not sure which form to use, please get in touch with us, and we can help.

The time it takes to receive your formal connection offer depends on the type of project, what part of the network you're connecting to – for example Low Voltage (LV), High Voltage (HV) or Extra High Voltage (EHV) – and the work required to make the connection. In line with Ofgem's guaranteed standards, you will receive your offer between 5 and 65 working days after submitting your application for demand connections, and between 45 and 65 working days for generation connections. (You can find more information on our connection offer timescales here.) Your connection offer will be valid for a period of three calendar months from the date of the offer, and the timescale in which you'll need to build and commission your project will be clearly explained. You'll need to review your offer, with external advice if necessary, and decide whether to accept the offer within these three months.

The connections process: pre-application (cont.)

Demand connections

Demand connections are not governed by formal engineering recommendations in the same way generators are. Instead, demand connections are categorised according to our own internal thresholds, which are drawn from EREC guidance. Community energy projects tend to fall into one of two categories: commercial EV chargers, or demand connections for a commercial premises, such as a heat pump in a community building. There are then three sub-categories for demand connections on a commercial premises:

- Up to 69 kVA
- More than 69 kVA but less than 250 kVA
- More than 250 kVA.

kVA, or kilovolt-amperes, is the unit measuring the apparent power that a generator can supply. You will need to know which category your project falls into before you apply. We also recommend engaging with an electrician before you begin to confirm the maximum load you'll need for your new connection.

You can apply for a demand connection online via our Customer Connections Portal.

Connection costs

There are two main costs associated with your connection that you will need to pay SP Energy Networks for:

- The cost of making a connection application: Since 2018, Ofgem has allowed all UK Distribution Network Operators, like SP Energy Networks, to charge upfront for some connection quotations. Whether or not you will be charged, and exactly how much, will depend on your project's size and complexity. This charge reflects the time that SP Energy Networks puts into assessing your application, analysing its impact on the network and preparing your connection offer.
- The cost of the connection itself: This is the charge associated with modifying and/or reinforcing our network to enable your connection. Again, this charge is largely dependent on your project's size and complexity. This guide summarises several of the tools available (on pages 18 and 19) to help you estimate the cost of your connection ahead of application, so you can include it in your business case.

Cost of a connection application

If your project is a demand technology and exceeds 250 kVA, or if your project is a generation technology and exceeds 50 kVA, then your application will incur a cost known as a Connection Offer Expense.

- The application cost of a demand technology (that exceeds 250 kVA) can be between £500 and £7,500.
- The application cost of a generation technology (that exceeds 50 kVA) can be between £500 and £10,000.
- There is no application cost for demand or generation technologies under these limits.

If your application qualifies for this charge, we will let you know in writing. You will have 5 days to decide whether to pay the fee to continue your application or notify us that you'd like to withdraw your connection application without being charged.

Please note that the cost of a connection application is separate from the cost of connection. If you do not go on to accept the connection offer, you will not be refunded for the cost of your application.

You can find more information on the current application fees here.

Estimating the cost of your network connection

Ahead of a formal application and quotation, SP Energy Networks has developed three tools for you to use to help you estimate the cost of your network connection to support your business case planning, as well as an online calculator specifically for demand connections. Each of these tools will provide you with an estimate of the cost to connect your project to the network, with different levels of detail and assessment behind each.

Budget estimate

To get a rough idea of the connection cost when you're still in the early stages of planning your project (and ahead of a formal application), we can provide you with a budget estimate. There is no charge for us to prepare and issue a budget estimate, and we will provide this within the relevant Guaranteed Standard timescales.

It's important to note that this is for illustrative purposes only. If you proceed with a formal application, your actual connection offer may differ from the estimate due to the inclusion of other factors specific to the project.

To apply for a budget estimate for your project, email us here: gettingconnected@scottishpower.com

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The connections process: pre-application (cont.)

Feasibility study

If you've tried the budget estimate tool but want a more detailed assessment and engineering design for connecting your potential development, you can request a feasibility study. This is generally for more complex connections, and we will carry out an initial, high-level network study and provide you with an indicative connection assessment and cost.

There is an upfront charge for us to undertake a feasibility study. The exact cost will depend on the scope and complexity of your project(s) and connection options. We will advise you of the cost before undertaking the network study (and require payment before we begin), and we will also agree on the timescale for us to conduct the feasibility study in advance.

Like the budget estimate, any cost estimated will be purely indicative and not binding.

To apply for a feasibility study for your project, email us here: gettingconnected@scottishpower.com

Quote+

Quote+ is an enhanced hybrid of the feasibility study and budget estimate tools. It assesses whether a connection is possible and looks at the types and costs of connection options that would be available to you. Quote+ differs from our other two quotation options in that you can request up to three connection capacity options for your site, and we will provide you with an estimate for each capacity option within 20 working days. There is no charge for us to prepare and issue a Quote+.

If you are seeking a generation connection and choose to proceed with one of these options within 5 days of us issuing it, your queue position is considered to be the date you requested Quote+. If you are seeking a demand connection, your offer will remain valid for a period of three months, during which time you may request that one of these options be progressed to a formal quotation.

To enable us to prepare a Quote+ for your project(s), we will require the following information:

- Maximum of three demand or generation capacity requests
- Generator coordinates (generation connections only)
- Site address and layout drawing with landowner boundary
- Letter of Authority from the landowner.

To apply for a Quote+ for your project, email us here: gettingconnected@scottishpower.com

Online estimate for demand connections

If you are seeking a demand connection, we have a dedicated website tool which will immediately provide you with an estimation of the connection cost and timeline to connect. This tool will ask you to select your project category (e.g. commercial EV charger), your organisation type and the postcode for your site. It will then give you both a guide price (based on the average cost for a standard connection) and a guide time to connect (which is the average time taken from receiving payment until the work is complete).

You can navigate to this tool from the 'Getting Connected' part of our website and access it directly here.

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4.

The connections process: formal application

What you need to know about the application form itself.

The application form

SP Energy Networks uses industry-standard application forms for generation and demand connection applications. For generation connections, you will need to have sufficiently developed your project to be able to include:

- The Heads of Terms of an agreement with the land or building owner where the project is to be installed (where required)
- A site layout plan which clearly shows all land relevant to the application
- A detailed engineering design plan
- A preliminary project timeline.

SP Energy Networks will only be able to assess your application once all the information on the form is complete. The specific application forms for your connection route are highlighted in the G98 application process on page 12 of this guide, the G99 application process on page 13 and the guidance for demand connections on page 14.

All our application forms are a simplified version of the Data Registration Code of the Distribution Code, which sets out our obligations to you and details the specific information and data points that we need from you and that we need to provide to you as part of the connection application process.

Overview of a G99 standard connection application form for generators

Each generation application route requires certain common information, with a standard G99 application requiring the most detail. Table 3 summarises the key information you will need to provide, and all other application routes will require a subset of this information.

You may want support from your consultant (if you have one) and/or installer when filling out your application form. In some cases, you may also need a solicitor to assist you with the land rights for your site.

SP Energy Networks

The connections process: formal application (cont.)

Table 3. Summary of key information for a standard G99 connection application

What information will we need?	Tips to get the information	Why do we need that information?
Contact details and site address	These are contact details for you (and your consultant if you have one).	To understand who the key contacts for the project are.
Site address and layout	This can be given by using a GPS coordinate or a detailed description. You will need to attach a site layout plan, too.	To understand where the site would connect to the network.
Supplementary contact details	Contact details for your installer can also be helpful if you have them at this stage.	To understand who the key contacts for the project are.
Letter of Authority (LoA) for the installer	If your installer or consultant is filling out the application on your behalf, you must have a Letter of Authority authorising them to do so.	This is to ensure you legally allow a consultant and/or installer to fill out the application form on your behalf.
Single-line diagram of any onsite existing or proposed electrical plans	This needs to be accurate and detailed. Details of what this needs to include and examples are in the ENA guidance document.	It is important to understand where you want to connect to the network to enable SP Energy Networks to analyse the impact and cost of your connection.
The number of connections you require	This will depend on your project. It is likely to be one connection for each premise.	This information is to support us in understanding the capacity that your project will export to the network.
The required capacity for each connection	This is the capacity (in kW) you expect your generator to produce. This will depend on the total capacity of your generator.	This information is to support us in understanding the capacity that your project will export to the network.
Details of any existing import or export MPAN or metering system	This is easiest through a site visit and/or conversations with the land or building owner. You may be able to see an existing metering point or ask how those who use the premises import and export electricity. If you're unsure about this, talk to us, and we can help you before sending in your application.	If you have this information, it will make the application process much quicker, as we can locate exactly where the electricity could be imported or exported.
Preferred connection point	This can be given using a GPS coordinate or a detailed description. It indicates where you would like to connect to the network. You can request plans through our website for the exact locations of the cables, lines and other electrical equipment we operate. If you're unsure about this, talk to us, and we can help you determine the best location for connecting.	This supports us in the design process of your application. It will also be a part of determining the cost of your application.
Preferred connection point voltage	For Type A-C generators (see Table 2 on page 13), this relates to whether you'd like to be connected to the 11 kV or 33 kV voltage level. The size of your project and the infrastructure in your local area will determine this. If you're unsure about this, talk to us before sending in your application.	This helps us plan your connection offer and determine how much connecting to this voltage level will cost.
Target date for connecting the generator	Use your project plan to give us a viable and realistic date based on the timescale for constructing your project.	This helps us plan your connection offer.
Whether you need a budget or a formal offer	A formal connection offer is a contractual document which sets out timelines you'll need to adhere to in order to keep your connection offer. As such, a formal connection offer is more appropriate once you are in a position to decide whether the project can proceed to the construction phase. Budget estimates indicate the cost of the connection but do not include any detailed design work.	This will determine the level of service we provide and how much you could be charged for the service.
Your preferred type of connection (usually either an unconstrained or alternative connection)	The preference for most developers in the first instance is to have an unconstrained connection so the electricity generated can always be transferred to the grid. However, where the network's capacity is limited, an alternative connection may be requested.	If the network is constrained, an alternative connection could prevent you from having to pay for expensive network upgrades, changing the cost of the connection.
Level of security required for the connection	Almost all community energy generation projects require a single circuit connection to the grid but, for some critical infrastructure, dual circuit security is needed. This means there is a backup connection to the grid which ensures the generator can continue to export if there is a fault on the primary connection assets. Your installer can support you with understanding which security is right for your connection.	This helps us to understand the work required to connect your generator and provide an accurate connection cost.

The connections process: formal application (cont.)

New connection queue requirements were introduced in January 2025 for generators with a capacity above 1 MW (more details about this change can be found here). Table 4 outlines a summary of the additional information you will need to provide when submitting a standard G99 application for generators over 1 MW.

Table 4. Additional information for a standard G99 connection application for projects over 1 MW

What information will we need?	Tips to get the information	Why do we need that information?
A Letter of Authority (LoA) and a Heads of Terms (HoT)	LoAs and HoTs are both required for an application. A LoA may reference larger parcels of land for a developer at a higher level and could be used for several applications, whereas an HoT is unique and specific to a single application. The HoT is only required if you are not the current landowner or leaseholder of the site on which your project will be built. It outlines the key terms agreed by the different parties for the lease or transfer of freehold of any land. More details about the content of the HoT, and an example HoT, can be found in the ENA guidance document (the example is in Appendix 1). You will need your solicitor to provide written confirmation that the HoTs apply to the entirety of the site that you're applying for.	This requirement has been introduced to streamline the application process, reject unclear or speculative applications and prioritise projects that are more likely to progress and be commissioned successfully.
A site layout plan showing where the connection is required	An example site layout plan can be found in the ENA guidance document for the new entry requirements. We can help and advise you on where the best place for a connection might be for your specific project.	This requirement has been introduced to streamline the application process, reject unclear or speculative applications and prioritise projects that are more likely to progress and be commissioned successfully.
A detailed engineering design plan which clearly shows all land in the HoT	This will include the site address, boundaries, a title and legend, key infrastructure, connection points, scale and orientation, and annotation and notes. The ENA guidance document provides details and examples of what this needs to include.	This requirement has been introduced to streamline the application process, reject unclear or speculative applications and prioritise projects that are more likely to progress and be commissioned successfully.
Single-line diagram of any onsite existing or proposed electrical plan	This needs to be as accurate and detailed as possible. Details of what this needs to include, and examples, are in the ENA guidance document.	This requirement has been introduced to streamline the application process, reject unclear or speculative applications and prioritise projects that are more likely to progress and be commissioned successfully.
A preliminary project timeline	A comprehensive project plan should provide timelines, milestones, resources, budget and risk management. Details of what this needs to include, and examples, are in the ENA guidance document.	This is to evidence that your project is well-planned and coordinated.
Completed G99 SAF Part 4	This is the section in the application form which provides detailed technical data for the different types of generators. Your installer or consultant should support you in filling out this section.	Providing the information earlier allows there to be a record of the equipment that you're seeking to install. This, in turn, means we have the information to design a safe and efficient connection to the network.

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The connections process: formal application (cont.)

Overview of a demand connection application

The application for a demand connection is usually much simpler than for a generation connection.

Typically, we would need:

- The name and address of the applicant
- The address of the site you want to connect
- The site plan, to scale, showing proposed supply and meter position
- A photo of the roadside access to the site.

In our experience, an application for a demand connection takes between 5 and 10 minutes to complete, and you will need to register or sign in to the Customer Connections Portal, which will enable you to pay online and track your application as we arrange your new connection.

You can access our Customer Connections Portal here, and you can find details on how to contact our connections team here.

When will I receive my connection offer?

At the point you submit your connection application, you will receive your offer between 5 and 65 working days after submitting your application for demand connections, and between 45 and 65 working days for generation connections. The time it takes to receive your formal connection offer depends on the type of project, what part of the network you're connecting to (for example, LV, HV or EHV) and the work required to make the connection. You can find more information on our connection offer timescales here. Your connection offer will be valid for a period of three calendar months from the date of the offer and the timescale in which you'll need to build and commission your project will be clearly explained. You'll need to review your offer, with external advice if necessary, and decide whether to accept the offer within these three months.

SP Energy Networks

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The connections process: receiving your connection offer

What happens after you apply for a connection, what your connection offer will look like and when you might be offered an alternative connection.

How we assess your application

Once we receive your formal connection application, we carry out several assessments to understand how your generation or demand project will affect the electricity network. This analysis helps us decide whether any upgrades or changes are needed to safely connect your project. Some of the areas we look at include:

- **Upstream network capacity:** We check the higher voltage network that feeds your local area to see whether it might need modifying or reinforcing to enable your project to connect.
- **Projects over 5 MW in England and over 200 kW in Scotland:** If your project is over 5 MW in England and over 200 kW in Scotland (and over 50 kW for some Scottish Islands), we must contact the National Energy System Operator (NESO) to request a Statement of Works to see the potential impact on the national transmission grid.
- **Direction of energy flow:** We assess how your project will import or export electricity and whether the network in your area is set up to handle this.
- **Fault levels:** We check whether your project could affect the safety systems designed to respond to faults (like short circuits) on the network.
- **Connection equipment:** We look at what equipment is needed to physically connect your project to the grid. This can include items like cables and switchgear, and they are called sole-use assets because they're used only by your project. Sole-use assets will need to be paid for by you, and the cost will be detailed in your connection offer.
- **Historic cost sharing for local network upgrades:** If your project benefits from network upgrades that were originally paid for by another customer within the last 10 years, you may need to contribute to that cost.

Our analysis and assessment help us ensure your connection is safe, reliable and works within the limits of the wider electricity network.

SP Energy Networks

The connections process: receiving your connection offer

Your connection offer

Your connection offer will include details of the type of connection we are able to offer you and a detailed breakdown of the costs involved in connecting your project to the electricity network. Your connection offer will include:

- A clear description of the works required to complete your connection
- The length of underground cable or overhead line needed
- The number and type of substations required
- Information on any reinforcement work that needs to be done on the wider network
- Any legal or professional fees related to securing land rights (for example, if we need access to private land)
- The proposed point of connection (POC) to our distribution network and the location of the entry and exit points on the premises to be connected.

We follow standard industry rules when calculating the costs for all potential connections. As such, the costs we calculate and include in your connection offer are final and non-negotiable.

Although we can help if you have questions about your connection offer, at this stage, many community energy groups engage professional legal and energy consultancy experts.

Legal considerations

There are several legal and legally binding aspects to accepting a connection offer. These include:

- **A three calendar month acceptance window:** You will have three calendar months, from the day we issue your connection offer, to formally accept. The only exception to this is if your project is part of an interactive queue and, if this is the case, it will be detailed in your connection offer. (An interactive queue is when other pending connection applications want to use the same part of the network and are likely to affect each other.) If you don't accept the offer within these three months, you will lose your place in the connection queue, and you will have to restart your application.
- **Legally binding agreement:** Once you have formally accepted your connection offer, you are in a legally binding contract with us and will be required to meet the terms, conditions and payments specified. This means you must comply with the National Terms of Connection (NTOC). More information on the statutory information for generators who connect to the energy network can be found here.
- **Land rights and permissions:** If the equipment required to connect your project to the network (cables, substations or overhead lines) is on someone else's land, we will need to secure land rights for long-term access to this equipment. There are two key land rights which may be applicable to your project:
  - Wayleave: This is a personal licence between the landowner and SP Energy Networks, which grants us a right of access to install, operate and maintain any infrastructure (like overhead lines or underground cables) across private land. A wayleave can be temporary or permanent, but it isn't usually 'tied' to the land, meaning that if the land is sold a new wayleave will have to be agreed with the new owner.
  - Easement: This is a legal property right registered against the title of the land, which gives SP Energy Networks a permanent and legally binding right to install and maintain equipment on private land. An easement is usually 'tied' to the land, so it doesn't lapse if ownership changes. Easements are not a feature of the Scottish legal system and so should only apply to projects in England and Wales.

In some cases, we may also need planning permission if your connection requires us to construct electricity network infrastructure (like a new substation or new overhead lines). We may also need consents for environmental restrictions and consents for overhead line works. Your solicitor can confirm the specific legal agreements you'll need in place for your project(s).

If your connection works are being done by an Independent Connection Provider (ICP), a separate adoption agreement will need to be put in place. This agreement is between us and your ICP, and it will allow us to adopt the assets they install, such as cables or substations. More information on ICPs can be found in the 'Your quote options: a full-works quote and a non-contestable only quote' on page 22 of this guide.

Understanding how network constraints impact your connection offer

Many parts of the electricity network are now constrained and operating at full capacity because of the amount of distributed generation already connected.
Although it is still possible to get a generation connection in constrained areas, it might take longer and cost more if work is needed to upgrade the network to accommodate your connection. You can find out if you are in a constrained area using our distributed generation heat maps.

If the network in your area needs to be upgraded before you can connect, there will be a one-off charge for this in your connection offer. This charge is dependent on your project's location, size and the specific constraints in your area, but it could include the cost of modifying part of the existing network or a share of the reinforcement cost to increase the capacity of the network to accommodate your project.

We will clearly explain all the potential costs and timescales in your connection offer.

Alternative connections

It isn't always possible to connect more generation or demand to our networks without potentially expensive grid reinforcement. This is due to the network reaching the limit of the amount of power it can transmit safely. Too much power in one area can lead to overheated equipment, unstable voltage levels across the network, and local fault level and protection issues.

SP Energy Networks

The connections process: receiving your connection offer

If you are in an area where this is the case and the cost of upgrading the network is prohibitive for your project, we may be able to offer you an alternative connection. An alternative connection could enable you to connect sooner (ahead of the required network reinforcement) by agreeing to temporarily limit how much electricity you import or export under certain conditions. This export or import limit is known as curtailment and will either be fixed (within preset limits) or dynamic (and change in real time based on network conditions).

There are four main types of alternative connections:

- Export limiting: Special equipment is used to limit the amount of electricity your project can export to the grid.
- Timed connections: Some parts of the network have predictable patterns of electricity use in terms of when electricity is generated and used. Connections with a timed agreement will be given an operating schedule that defines when and how much electricity you can import or export.
- Soft intertrip: In some areas of our network, we are able to offer this type of connection, which is only suitable for high-voltage connections or projects exporting 250 kW or more. Through real-time monitoring of specific assets or limits, we can reduce your generating capacity at times when the network is under strain.
- Active Network Management (ANM): In some areas of our network, we can use ANM to monitor and dynamically manage the network in real-time, which allows us to allocate available capacity to projects (based on when their connection was accepted).
- All types of alternative connections can be either temporary or permanent:
- Temporary alternative connections will remain on an alternative basis pending completion of the reinforcement works (which you may need to financially contribute to) required to enable an unconstrained connection.
- Permanent alternative connections will stay on the alternative connection for the operational lifetime of your equipment, but you will avoid paying for reinforcement works.

All types of alternative connections will impact the business case of your project because of the limits imposed on when and how much electricity you can export and import. These details will be included in your connection offer, but we would encourage you to talk to us so we can take you through them in detail.

Your quote options: a full-works quote and a non-contestable only quote

The construction work required to connect your project will fall into two categories, contestable works and non-contestable works:

- Contestable works are the parts of the construction work that can be carried out by either SP Energy Networks or an Independent Connection Provider (ICP), whom you would appoint. Contestable work is open to competition, and you can ask several ICPs to quote and choose the best option for you in terms of cost and timing. Some examples of contestable work include:
  - Design of your new connections or networks to our existing network
  - Excavation, ducting and laying of new underground cables
  - Construction of substation buildings or enclosures on private land
  - Installation of some types of switchgear and transformers
  - Installation of new electrical equipment and services
  - Acquisition of legal consents for new networks
  - Live jointing of cables and services for the new network (subject to accreditations and SP Energy Network authorisations)
  - Completion of the final connection joint to our existing network.

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The connections process: receiving your connection offer

- Non-contestable works are the parts of the construction work that can legally only be carried out by SP Energy Networks as the Distribution Network Operator. These are usually activities that can affect the wider network, including upgrading existing network assets, final connections to the live distribution network and approving network protection settings. Some examples of non-contestable work include:
  - Assess the impact of your new connection to our existing networks
  - Specify the equipment and materials that have to be used
  - All live network connections of new assets to the existing network
  - All network reinforcement
  - Testing, commissioning and energisation of the connection onto the network
  - Any work that affects the network operator's protection systems
  - If you are using an ICP for the contestable work, we may need to approve the new ICP design, inspect and monitor the ICP work on the new networks and witness testing of the new electrical equipment installed by the ICP.
  - We will clearly outline what is and isn't contestable in your connection offer, and, in most cases, we will include two quotes: a full works quote and a non-contestable only quote.
- **The full-works quote** shows you the cost for us, as the Distribution Network Operator, to carry out both the contestable and non-contestable works. It is more expensive than the non-contestable only quote because we are quoting for all the work required to connect your project.
- **The non-contestable only quote** is the cost for us to complete the work that can only be carried out by us as the Distribution Network Operator. It is cheaper than the full-works quote because we are only quoting for part of the work that is required to connect your project to our network. You will need to appoint and pay an ICP to carry out the contestable portion of the work.

If you already have a good idea of which parts of the work to enable your connection are contestable, then you can ask an ICP to give you a quote for this part of the work before submitting your formal connection application to us. Or you can wait until you receive your connection offer from us and then decide whether you'd like us to do the contestable work or prefer to appoint an ICP instead. In our experience, most community energy groups choose to get quotes from a few ICPs for the contestable work through a tender process to enable them to compare prices and timelines to choose the option that best fits the project's goals and budget.

The National Electricity Registration Scheme (NERS) plays a key role in the UK electricity industry by accrediting ICPs, ensuring that they meet consistent technical, safety and regulatory standards when carrying out work on the electricity distribution network. You can find a list of accredited ICP's here, and a list of what is contestable vs non-contestable here.

SP Energy Networks

6.

The connections process: construction and commissioning

Your responsibilities during construction, operation and decommissioning.

Your responsibilities during construction

As we work together to construct and commission your energy project, you have several important responsibilities to make sure your connection to the network goes smoothly. Stay in contact with us (and with your ICP, if you have one) during the build, as it's important that everyone works to the same timelines and follows the correct standards.

Table 5. Your responsibilities during the construction phase

	Your responsibility
Type testing your equipment	Once construction is finished, you are responsible for carrying out full commissioning tests on your equipment. For generation connections, if your generator is type tested, we probably won't need to witness your tests. If we do need to witness them, this will be clearly stated in your connection offer, and if that is the case, you'll need to send us detailed information about your planned tests before the commissioning date.
Notifying us when you commission your equipment	You must let us know when you plan to commission your equipment. For some projects, you'll need to let us know beforehand, whereas for others you'll need to notify us no later than 28 days after commissioning the equipment. You'll need to share with us full details about the installation and your commissioning test (or type testing) results.
Put commercial arrangements in place	Make sure you've set up any agreements needed to sell or export electricity, and let your electricity supplier know when you expect to start generating.
Arrange your metering	For generation connections, make sure you have proper metering arrangements in place before you start generating electricity. We'll usually discuss this with you as we prepare your connection offer, but please keep us updated if anything changes.

SP Energy Networks

The connections process: construction and commissioning

Metering arrangements

Electricity meters are essential for recording how much electricity you are importing and/or exporting.
You'll need to have a metering arrangement in place before you commission your equipment and before you export or import electricity from the network. Meter Operator agreements and data collection services can cost hundreds of pounds per year, so it can be useful to get quotes early and factor these into your project's business plan.

There are two categories of electricity meters:

- Half-Hourly (HH) Meters: These meters are typically for larger, industrial generation and demand sites and record exact electricity usage every half-hour. If you need this type of electricity meter, you will be responsible for appointing a Meter Operator. You can see a list of accredited providers and further information on the Association of Meter Operators website.
- Non-Half-Hourly (NHH) Meters: These meters are typically for domestic and smaller commercial generation or demand sites. They record total electricity usage over time and use estimated usage profiles for billing purposes. Your electricity supplier is responsible for arranging the meter and collecting the data.

Your responsibilities during operation

Once your project is up and running, there are a few important responsibilities you need to follow for as long as it continues to operate. These include:

Table 6. Your responsibilities during operation

	Your responsibility
Equipment maintenance	Keep your equipment well-maintained so it continues to operate safely and reliably, and tell us about any changes to the technology you have installed, such as it being moved, replaced or damaged.
Notify us if something goes wrong	Notify us of any operational incidents, such as faults or failures, that could affect your compliance with regulations.
Health and Safety compliance	Follow all Health and Safety regulations to keep your team, the public and the network safe.

If your system isn't meeting these requirements, we may issue a notice to disconnect the equipment until the issue is resolved.

Changing or decommissioning your equipment

If you decide to decommission (remove or shut down) your equipment, you'll need to let us know and submit the details of your current connection online here. There may be a cost and timescale associated with your disconnection request, which we will advise you of.

If you're replacing your generation equipment, the new system must meet the current standards under ENA Engineering Recommendation G98 or G99, as appropriate.

If the new equipment is different from what you had before (in terms of size, type or how it operates), you must notify us. The process for doing this is the same as if you were installing a new generator, and you can use this guide to help you determine which of the connection application routes you need.

You can find more information on how to change or decommission generation here.

SP Energy Networks

7.

How to engage with SP Energy Networks

How to get in contact with us.

Connection experts

We are keen to support local community projects requiring a grid connection, and you can find details on how to contact our connections team here.

Throughout the connections process, your application and connection will be looked after by one of our experts across two different teams (depending on the stage of your application):

- Our Design and Development teams in each of our licence areas will coordinate all new connection design and quote activity (including the design of any associated network reinforcement requirements)
- Our local District Delivery Teams will then deliver the projects, thus ensuring onsite works can be planned and constructed utilising local relationships on site.

You can find contact information for our experts in each of these teams on our website here.

General enquiries

If you have a general enquiry about a connection, disconnection or service alteration, then you can contact us using the following:

- For central and southern Scotland, the general enquiries telephone line is **0800 389 1785** and the email address is gettingconnected@spenergynetworkscrm.co.uk
- For Cheshire, Merseyside, North Wales and North Shropshire, the general enquiries telephone line is **0800 389 1783** and the email address is gettingconnected@spenergynetworkscrm.co.uk
- Our general enquiries lines are open between 08:30 and 16:30, Monday to Friday.

SP Energy Networks

8.

Glossary

An explanation of key terms.

Adoption agreement: An adoption agreement outlines the terms and conditions when a DNO or an IDNO adopts assets that have been installed by a third party.

Connection offer: A formal offer from the DNO containing terms, conditions and charges for the DNO to make the connection. Issued either to you or the ICP, where applicable.

Consultant: Many consultancies are experienced in project managing renewable energy projects, and others can specifically support the connections process. It is worth considering hiring a consultant, especially for more complex projects, if you don't have the necessary expertise in-house.

Contestable works: Work that is open to competition and can be conducted by ICPs.

Curtailment: A temporary reduction in electricity generation that is imposed on the generator.

Decommission: This is withdrawing your connection from the network.

Distribution network: A system of electricity lines and equipment that connects the transmission system and distributed generation to end users. In England and Wales, the distribution systems are the lines with a voltage less than or equal to 132 kV. In Scotland, this is 33 kV and below.

Distribution Network Operator (DNO): The DNO owns, operates and maintains a distribution network and is responsible for confirming requirements for the connection of distributed generation to that network.

Extra High Voltage (EHV): Networks operating above 22 kV, i.e. 33 kV or 66 kV.

Engineering recommendations (EREC): The technical standards developed by the Energy Network Association.

Fault levels: The highest electric current that can exist in a particular electrical system under short-circuit conditions.

Generators: These are the organisations that own, operate and maintain equipment which generates electricity. This is likely to be the role of a community energy organisation.

Grid Supply Points (GSPs): A GSP is the point at which electricity enters the distribution network, leaving the transmission network.

Heat maps: These are maps of our HV network, colour-coded based on the available capacity on any given circuit.

High Voltage (HV): Networks operating between 1 kV and 22 kV, i.e. 6.6 kV or 11 kV

Independent Connections Provider (ICP): An ICP is a company that can build electricity networks to agreed standards and quality for adoption by a DNO or an IDNO. The ICP must be registered with Lloyds Register EMEA under the National Electricity Registration Scheme (NERS) and hold the relevant scopes for the works to be undertaken.

Independent Distribution Network Operator (IDNO): An IDNO builds and runs smaller, privately-owned, local distribution networks. For example, an IDNO may build the network for a new housing development or business park and then connect it to the main DNO network.

Installer: This is the person or organisation responsible for the installation of your technology and/or equipment. They will likely work with the community energy organisation and support with the application process.

Low Voltage (LV): Less than 1 kV networks, i.e. 230/400 V.

Microgenerator: A source of electrical energy and all associated equipment connected at low voltage, with currents that are under 16 A per phase.

Metering: This is the mechanism for settlement to ensure your generation receives the correct rates for your tariff and is a key part of the balancing and settling arrangements, which are laid down in the Balancing and Settlement Code (BSC), and are administered by ELEXON.

Meter operator: This is the organisation responsible for installing, operating and maintaining your electricity meters.

Meter Point Administration Number (MPAN): When a new connection to the grid is created, your DNO will provide you with a new MPAN, which your electricity supplier will need in order to install a meter. This is a unique 13-digit code that identifies an electricity supply point (i.e. where you will import/export electricity into the network).

Non-contestable works: Work that must be carried out by your DNO and is not open to competition.

Power Generating Module (PGM): Any source of electrical energy, irrespective of the generation technology and PGM type (including electricity storage devices when operating in export mode and vehicle-to-grid EVs). A PGM can be either a Synchronous Power Generating Module or a Power Park Module.

Power Generating Facility: A facility that converts primary energy into electrical energy and which consists of one or more PGMs connected to a network at one or more Connection Point(s).

Point of Connection (POC): Point of connection to the electrical network.

Reinforcement: Reinforcement work is undertaken to increase the electrical capacity of those parts of the network that are affected by the introduction of new generation or demand.

Statement of Works: This is a requirement to let the National Energy System Operator (NESO) know of any connections to our network over 1 MW, as these might impact the higher voltage networks.

Substation: A part of our network where distributed generation is connected, and we transfer power across boundaries, either by voltage level or a customer's point of common coupling.

Thermal rating: The current carrying capacity of the cable, determined by the heating effect caused by electrical losses.

Transmission network: A system of electricity lines and equipment that connects power stations and substations. In England and Wales, the transmission system is rated above 132 kV. In Scotland, the transmission system is rated 132 kV and above.

Type-tested equipment: This is defined in the formal EREC 99 as "a product which has been tested to ensure that the design meets the relevant requirements of this EREC G99, and for which the Manufacturer has declared that all similar products supplied will be constructed to the same standards and will have the same performance".

Voltage level: The transmission network transports electricity at high voltages. The distribution network operates at a more local level and at lower voltages than the transmission network. These include the 11kV and 33kV networks.

SP Energy Networks

9.

Appendix 1

Key requirements, application timings and application forms for generators in the SGI-1, SGI-2, SGI-3 and Type A categories seeking to use the G99 fast-track application process.

Table 7. SGI-1 requirements

	SGI-1 requirements
Rating of all generation/ storage devices per phase	Less than or equal to 16 A and a total rating of less than 16 A
Type testing requirement	Yes
Basic design capacity	Less than or equal to 32 A
Location	All located in a single installation (i.e. same MPAN)
Export limitation	N/A
Timing	Generators in the SGI-1 category are an 'application **after** installation' process. You will usually need to inform SP Energy Networks that you have commissioned your equipment within 28 days.
More information and application forms	You can find all our connection application forms (and other guides) on our website here. If you're not sure which form to use, please get in touch with us, and we can help.

Table 8. SGI-2 requirements

	SGI-2 requirements
Rating of all generation/ storage devices per phase	Less than or equal to 16 A and a total rating of between 16 A and 32 A
Type testing requirement	Yes
Basic design capacity	Less than or equal to 32 A
Location	All located in a single installation (i.e. same MPAN)
Export limitation	G100 export limitation scheme to no more than 16 A. (The G100 limit is a constraint on the export capacity of small-scale generators onto the distribution network. Its purpose is to prevent voltage rise issues on low-voltage networks that could be caused by excess generation and to protect the network and other customers from reverse power flows that could cause instability or equipment damage.)
Timing	Generators in the SGI-2 category are an 'application **before** installation' process. Once you have submitted the application, SP Energy Networks will reply between 45 and 65 working days depending on what part of the network you are seeking to connect to (for example, LV, HV or EHV). You can find more information on our connection offer timescales here. Your connection offer will be valid for a period of three calendar months from the date of the offer and the timescale in which you'll need to build and commission your project will be clearly explained.
More information and application forms	You can find all our connection application forms (and other guides) on our website here. If you're not sure which form to use, please get in touch with us, and we can help.

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Appendix 1

Table 9. SGI-3 requirements

	SGI-3 requirements
Rating of all generation/ storage devices per phase	Less than or equal to 32 A and a total rating of between 32 A and 60 A
Type testing requirement	Yes
Basic design capacity	Less than or equal to 32 A
Location	All located in a single installation (i.e. same MPAN)
Export limitation	G100 export limitation scheme to no more than 32 A. (The G100 limit is a constraint on the export capacity of small-scale generators onto the distribution network. Its purpose is to prevent voltage rise issues on low-voltage networks that could be caused by excess generation and to protect the network and other customers from reverse power flows that could cause instability or equipment damage.)
Timing	Generators in the SGI-3 category are an 'application **before** installation' process. Once you have submitted the application, SP Energy Networks will reply between 45 and 65 working days depending on what part of the network you are seeking to connect to (for example, LV, HV or EHV). You can find more information on our connection offer timescales here. Your connection offer will be valid for a period of three calendar months from the date of the offer and the timescale in which you'll need to build and commission your project will be clearly explained.
More information and application forms	You can find all our connection application forms (and other guides) on our website here. If you're not sure which form to use, please get in touch with us, and we can help.

Table 10. Type A less than 75 A (i.e. 50 kW)

	SGI-3 requirements
Rating of all generation/ storage devices per phase	Above 32 A and less than 75 A
Type testing requirement	Yes
Basic design capacity	No limitation
Location	No limitation
Export limitation	Dependent on the capacity of the network
Timing	Generators in the 'Type A less than 75 A' category are an 'application **before** installation' process. Once you have submitted the application, SP Energy Networks will reply between 45 and 65 working days depending on what part of the network you are seeking to connect to (for example, LV, HV or EHV). You can find more information on our connection offer timescales here. Your connection offer will be valid for a period of three calendar months from the date of the offer and the timescale in which you'll need to build and commission your project will be clearly explained.
More information and application forms	You can find all our connection application forms (and other guides) on our website here. If you're not sure which form to use, please get in touch with us, and we can help.

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SP Energy Networks community support

A guide to getting your community energy scheme connected

A plain-English guide for community energy groups seeking generation and/or demand connections with SP Energy Networks.

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