

For connecting generation above 3.68kVA

It's our job to get you connected as safely and as quickly as possible in five easy steps:



**1.** Applying for your new generation



**2.** Your pre-quote site visit (if needed)



**3.** Getting and paying for your quotation



**4.** Preparing your site for construction



**5.** Work begins on site

## Connection Timescales

Your application is individually assessed based on your requirements - please see below for average timescales:

Generation Type	When will I receive my Quotation or Budget Estimate?	Average time to get connected (from payment)
Low voltage	Within 45 working days	5 weeks
High voltage	Within 65 working days	19 weeks
Extra high voltage	Within 65 working days	2 years

*The guide to timescales are to assist you with your connections application. They give a general illustration of what your new connection might entail. Timings to connect are dependant on an assessment of the terms of connections for specific premises and current indicative prices are available on our website.*

**There are seven key pieces of information that we need from you. Without them we won't be able to progress your application. Please ensure you have everything to hand before you begin:**

- ✓ Your name and correspondence address
- ✓ Site address (address where you want your connection)
- ✓ Scaled site location plan clearly showing your site boundary and preferred meter position(s)
- ✓ Date when the connection is required
- ✓ Maximum input and export electrical capacity at each property in kVA (KiloVolt Ampere)
- ✓ Details of any Power Generating Module to be connected to the Distribution Network in accordance with EREC G99
- ✓ Details of any other electrical equipment (if applicable)

**Need some help? You may want to seek advice from an electrical contractor before you apply. Our experienced Connections team can also help you with your application:**



**0800 011 3433**

**Opening hours:**

Monday – Friday

Saturday

8:00am - 8:00pm

9:00am - 5:00pm

Alternatively, you can visit our website and apply online at [www.northernpowergrid.com/get-connected](http://www.northernpowergrid.com/get-connected)

## Section 1 – Your Details

Are you the current owner/occupier of the site address?*	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Are you applying as an agent on behalf of the current owner/occupier of the site address?*	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Are you the future owner/occupier of the site address?*	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Are you applying as an agent on behalf of the future owner/occupier of the site address?*	Yes <input type="checkbox"/>	No <input type="checkbox"/>

**i** If you are acting as an agent applying on behalf of the owner/occupier (or future owner/occupier) of the site address we may request a copy of the letter of authority and a copy of the land registry confirming you have the right to represent the customer if required. If you have a copy of this letter and/or a copy of the land registry documentation available, please include it with this application.

If you have answered **No** to all of the above questions, a member of our Connections team will contact you following receipt of your application to discuss further

**a. Owner/Occupier Details**

This is the name and address of the owner/occupier of the site – fields marked with a \* are mandatory

Title	First Name*	House/Flat No*	Building Name
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Last Name*	Street*		
<input type="text"/>	<input type="text"/>		
Company (if applicable)	Town*	Postcode*	
<input type="text"/>	<input type="text"/>	<input type="text"/>	
Daytime Telephone	Mobile	Email	
<input type="text"/>	<input type="text"/>	<input type="text"/>	

**b. Site Address**

Where you want your new connection – please leave blank if the site address is the same as the address in Section 1a

House/Flat No*	Building Name	Street*
<input type="text"/>	<input type="text"/>	<input type="text"/>
Town*	Postcode*	
<input type="text"/>	<input type="text"/>	
Daytime Telephone	Mobile	Email
<input type="text"/>	<input type="text"/>	<input type="text"/>

## Section 1 – Your Details (continued)

**c. Representative Details**

If you are acting as an agent on behalf of the owner/occupier, please complete the details below

Title	First Name	House/Flat No.	Building Name
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Last Name		Street	
<input type="text"/>		<input type="text"/>	
Company (if applicable)		Town	Postcode
<input type="text"/>		<input type="text"/>	<input type="text"/>
Daytime Telephone	Mobile	Email	
<input type="text"/>	<input type="text"/>	<input type="text"/>	

## Section 2 – Your Connection

**i** *The type of work you require may be subject to Connection Offer Expenses. Our website provides further information along with indicative charges [www.northernpowergrid.com/connection-offer-expenses](http://www.northernpowergrid.com/connection-offer-expenses).*

**Who should be invoiced for the Connection Offer Expenses?**

<input type="checkbox"/> <b>Owner/occupier</b> (details provided in section 1)	<input type="checkbox"/> <b>Representative</b> (details provided in section 1)
<input type="checkbox"/> <b>Other</b> (please give details)	<input type="text"/>

**Who should your Single Point of Contact correspond with?**

<input type="checkbox"/> <b>Owner/occupier</b> (details provided in section 1)	<input type="checkbox"/> <b>Representative</b> (details provided in section 1)
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**Please select the option which is right for you:**

<input type="checkbox"/> <b>Firm Quotation</b> This is a quotation that once accepted will set out detailed terms and conditions and will be binding on both parties. The quote will be valid for 90 days.	<input type="checkbox"/> <b>Budget Estimate</b> This will provide indicative costs and will not require a technical assessment or site visit. This is non-binding and cannot be accepted.
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**i** *If you're at the early stages of a project and do not have a connection date in mind, or are not the owner/occupier of the site address, you should apply for a Budget Estimate.*

**When would you like us to provide your connection?\* (MM/YY)**

This is the date you would ideally like your connection to be made. If you're unsure, we can accept an estimated date. We'll agree a definite date with you after you've accepted the quotation.

### Section 3 – Existing Generation

**i** *If you have wind turbines, solar panels (also known as PV panels) or combined heat and power plants (CHP) installed on your premises then you have existing generation*

**Does this site already have generation connected?**

**Yes** ☐ Please detail below **No** ☐ Proceed to Section 3

**For this generation please supply the following details:**

Max Export (KW)      Rated Current (amps)      Rated Voltage (volts)      Type of Generation





Existing Import MPAN

Existing Export MPAN



### Section 4 – New Generation

**Is this generation for standby purposes?** **Yes** ☐ **No** ☐

**Will any Generating Unit supply electricity to on-site load?** **Yes** ☐ **No** ☐

**Will your generation run for more than 5 minutes per month?** **Yes** ☐ **No** ☐

**Would you like to apply in Kilowatts (kW) or Megawatts (MW)?**

**kW** ☐ **MW** ☐

**What is your preferred Connection Point Voltage (V)?**

**How many generator sets are you installing?** **Are all generator sets the same size?**

**Yes** ☐ **No** ☐

**i** *If your generation sets are not all the same size, please provide details of each generation set at each premises in our Additional Information (Section 10).*

**What type of generation are you installing?** e.g. solar panels, wind, battery

**Generation set no.**



## Section 4 – New Generation (continued)

## What type of generation set will this be?

	Number of Generating Units	Type of Prime Movers	Energy Source Availability	Technology Production Type
Synchronous Power Generating Module	<input type="text"/>	<input type="text"/>	<input type="radio"/> Intermittent <input type="radio"/> Non-intermittent	<input type="text"/>
Fixed Speed Induction Generating Unit	<input type="text"/>	<input type="text"/>	<input type="radio"/> Intermittent <input type="radio"/> Non-intermittent	<input type="text"/>
Double Fed Induction Generating Unit	<input type="text"/>	<input type="text"/>	<input type="radio"/> Intermittent <input type="radio"/> Non-intermittent	<input type="text"/>
Series Inverter Connected Generating Unit	<input type="text"/>	<input type="text"/>	<input type="radio"/> Intermittent <input type="radio"/> Non-intermittent	<input type="text"/>
Electricity Storage Generating Unit	<input type="text"/>	<input type="text"/>	<input type="radio"/> Intermittent <input type="radio"/> Non-intermittent	<input type="text"/>
Other (Please Specify)	<input type="text"/>	<input type="text"/>	<input type="radio"/> Intermittent <input type="radio"/> Non-intermittent	<input type="text"/>

**i** For more information please see the [generation connection guide](#) on our website, or see our [Help and Guidance](#) section for more information on Energy Source Availability and Production Type

## Please complete one of the following:

What is the sub-transient (X"d) - unsaturated / saturated? (Per unit)

What is the maximum fault level contribution? (MVA)

## Generation set Active Power capability:

Rated terminal voltage  
(generator) (volts)

Rated terminal current  
(generator) (amps)

Generation set registered  
capacity (net) (MW/kW)

What will be the maximum  
active power export (MW/kW)

Generation set apparent power  
rating (to be used as a base for  
generator parameters) (MVA)

Generation set rated active  
power (gross at generator terminals)  
(MWkW)

## Section 4 – New Generation (continued)

**Generation set Reactive Power capability at rated Active Power (gross at generator terminals):**

Max reactive power export  
(lagging) (MVar)

Max reactive power import  
(leading) (MVar)

**Generating Unit maximum fault current contribution**

Peak asymmetrical short circuit current at 10ms ( $i_p$ ) for a 3 $\phi$  short circuit fault at the Generating Unit terminals (HV connected generators only)

RMS value of the initial symmetrical short circuit current ( $I_k$ ) for a 3 $\phi$  short circuit fault at the Generating Unit terminals (HV connected only)

RMS Value of the symmetrical short circuit current at 100ms ( $I_k(100)$ ) for a 3 $\phi$  short circuit fault at the Generating Unit Terminals

**i** For more information regarding Active and Reactive Power, please see our Help and Guidance section (page 11 of this form)

**What security is required for your connection?**
☐

**Single circuit connection**

☐

**Manually switched alternative connection**

☐

**Automatically switched alternative connection**

☐

**Firm connection** (secure for first circuit outage)

☐

**A flexible or Active Network Management connection** (discussion with DNO required)

**What will be the maximum active power import? (kW)**

**What will be the maximum reactive power import? (kW)**


**!** Please include a single line diagram of your proposed generation installation with this application

## Section 4 – New Generation (continued)

## Are you installing an interface transformer?

Yes ☐ Please detail below No ☐

Rated (apparent) power (MVA)

Maximum ratio tap (%)

Rated voltage ratio  
(on principal tap) (kV/kVA)

Minimum ratio tap (%)

Positive sequence resistance  
(per unit)

Method of voltage control

Positive sequence reactants at  
principal tap (per unit)

## Do you require an export Meter Point Administration Number (MPAN)?

Yes ☐ No ☐



*If your generation supply will distribute power back to our network, you will need an export MPAN*

## Power Generating Module interface arrangements

Means of connection, disconnection and synchronizing between the DNO and the Generator, please insert file name of attachment if this information is being provided as a diagram.

## Electricity Storage Plant operation

Maximum power swing of the storage device (mW)

## Impedance data for fault current contribution calculations

## Are there any transformers between the Generating Unit and the Connection Point?

Yes ☐ No ☐

Number of Generating Units  
connected to the transformer

Rated apparent power of the  
transformer

Positive sequence reactance  
of the transformer



*For sites with significant other impedance (multiple transformers, cables or overhead lines) between the Generating Unit and the Connection Point, please provide a sketch of the site detailing generator connection and impedances. This information can be detailed on your single line diagram*

## Section 5 – Equipment Causing Harmonic Distortion

Please provide details of any equipment that will affect the harmonics of the supply

**i** Please note your equipment must be G5/4 compliant and include any plans or documentation with your completed application

## Section 6 – Site Plans

### Site Location Plan\*

In order to provide a quotation we require a suitably scaled site location plan (preferably 1:500) indicating your **site boundary** and the **position of your property** within this boundary. This should be on an ordnance survey or land registry background.

### Builders Plan\*

We also require a builders plan indicating your preferred **meter position(s)** marked with an **X**.

**i** Plans can be found at [www.ordnancesurvey.co.uk](http://www.ordnancesurvey.co.uk) or give us a call and we can provide you with a site location plan

## Section 7 – Site Information

Is the site classified as a site of specific interest e.g. historical site, conservation area, listed building?

Yes ☐ No ☐

Are there any existing water courses, culverts or drainage ditches on or adjacent to the site?

Yes ☐ No ☐

Does the site contain hazardous substances e.g. Asbestos, Hydrocarbons?

Yes ☐ No ☐ If **Yes** for any of the above please detail in Additional Information

What is the likelihood of flooding from rivers and the sea on your development?

Low ☐ Medium ☐ High ☐

**i** You can check your level of flood risk at [www.flood-warning-information.service.gov.uk](http://www.flood-warning-information.service.gov.uk)



## Section 8 – Additional Information

Please provide any additional information you feel may be relevant to your application

## Application Checklist

 **Have you included the seven key pieces of information that we need to progress your application?**

Please use this checklist to ensure you have enclosed all the required information:

- ☐ Your name and correspondence address
- ☐ Site address (address where you want your connection)
- ☐ Scaled site location plan clearly showing your site boundary and preferred meter position(s)
- ☐ Date when the connection is required
- ☐ Maximum input and export electrical capacity at each property in kVA (KiloVolt Ampere)
- ☐ Details of any Power Generating Module to be connected to the Distribution Network in accordance with EREC G99
- ☐ Details of any other electrical equipment (if applicable)

## Signature

Signature of Applicant

Print Name

Date

## What's Next?

Each application is individually assessed to ensure you receive the best service.

Please send your completed application form and supporting documentation to:

**Northern Powergrid  
Network Connections  
Alix House  
Falcon Court  
Stockton-on-Tees  
TS18 3TU**

**Alternatively, you can email your application to us at**  
[getconnected@northernpowergrid.com](mailto:getconnected@northernpowergrid.com)

## Did You Know?

We're not the only company that can provide a quotation for your new connection. You can compare our prices and service levels with other companies that provide connections services, called Independent Connections Providers (ICPs), then choose what's best for you. For more information visit

[www.northernpowergrid.com/alternative-providers](http://www.northernpowergrid.com/alternative-providers)

## Data Protection

We take data protection seriously and, when we obtain your personal information for the purpose of providing our connection service to you, we will keep that information secure and process it in accordance with our privacy policy, which is available for you to read at [www.northernpowergrid.com/privacy-policy](http://www.northernpowergrid.com/privacy-policy).

If we speak to you on the telephone about your connection, those telephone calls may be recorded for quality assurance purposes and we may collect personal information about you during those calls.

We will use the personal information you give us in order to process your connection request (including to process your payment), enter into a contract with you to provide the new or altered connection, deliver the work required and to monitor the standard of the service we provide to you when we undertake the Works. We will not use any of your personal information for marketing purposes.

However, to ensure that we provide our customers with a high standard of service, we use an independent research company, Explain Market Research Limited, to carry out customer satisfaction surveys on our behalf. Consequently, if the service we provide to you falls within one of the categories in respect of which we are required by our electricity distribution licence to carry out a customer satisfaction survey, we will share your personal information with Explain Market Research Limited who may contact you to carry out that brief survey.

## Help and Guidance

### Active Power Capability

This section relates to operating conditions when the Power Generating Facility is exporting Active Power. The Active Power export and associated maximum Reactive Power export and/or import should be stated for operation at registered capacity. The firm import / export requirements relate to the capacity available in a first circuit outage event on the DNOs system. The non-firm import / export requirements relate to the capacity available when the DNOs system is intact. This information will be used by the DNO when assessing your application. Actual requirements for operating conditions such as the Power Generating Module operating mode and power factor will be agreed as part of the Connection Offer.

### Fault Current Contribution

We will need to assess your application with respect to the fault contribution your equipment will make to our network. Your Power Generating Modules and any induction motors will contribute fault current if there is a fault on the network. The amount of fault current at the connection point depends on the characteristics of your Power Generating Modules, induction motors and the impedance of your network (transformers, cables and overhead lines). Engineering Recommendation G74, ETR 120 and IEC 60909 provide guidance on fault current data.

Additionally, fault current contribution data may be provided in the form of detailed graphs, waveforms and/or tables. Induction motors can contribute to the peak asymmetrical short circuit current at 10ms. If the fault current contribution is solely from Generating Units then this information need not be provided where detailed fault level contribution / impedance data is provided for each Generating Unit in Part 4 of this application form.

### Interface Agreements

The interface arrangements need to be agreed and implemented between the User and DNO before energisation. This is detailed in Paragraph 6.4.2 of Engineering Recommendation G99. This information should include a diagram.

### Power Generating Module

Synchronous Power Generating Modules are generally synonymous with Generating Unit in EREC G99 except certain cases, such as a Combined Cycle Gas Turbine (CCGT) Module for example. A CCGT Module can be comprised of a number of Generating Units.

A Power Generating Facility may be made up of a number of Synchronous Power Generating Modules.

Asynchronous or Inverter connected Power Generating Modules are defined as Power Park Modules in EREC G99 and are typically comprised of several Generating Units connected together.

A Power Generating Facility could comprise several Synchronous Power Generating Modules and one Power Park Module. The exception to this is when new plant is being connected to a Power Generating Facility where there are Power Generating Modules which were connected under EREC G83 or EREC G59 and EREC G99 should be referred to for more detailed consideration of this.

## Help and Guidance

### Energy Source Availability

Intermittent and Non-intermittent Generation is defined in EREP 130 as follows:

- Intermittent Generation: Generation plant where the energy source for the prime mover cannot be made available on demand.
- Non-intermittent Generation: Generation plant where the energy source for the prime mover can be made available on demand.

### Production Type

The Production Type should be selected from the list below derived from the Manual of Procedures for the ENTSO-E Central Information Transparency Platform:

- Biomass;
- Fossil brown coal/lignite;
- Fossil coal-derived gas;
- Fossil gas;
- Fossil hard coal;
- Fossil oil;
- Fossil oil shale;
- Fossil peat;
- Geothermal;
- Hydro pumped storage;
- Hydro run-of-river and poundage;
- Hydro water reservoir;
- Marine;
- Nuclear;
- Other renewable;
- Solar;
- Waste;
- Wind offshore;
- Wind onshore;
- Other – battery storage;
- Other – storage not battery; or
- Other

### Fault Current Data

See Engineering Recommendation G74, ETR 120 and IEC 60909 for guidance on fault current data. Additionally, fault current contribution data may be provided in the form of detailed graphs, waveforms and/or tables.

If you have a site with several Power Generating Modules or induction motors you can complete the site maximum fault level contribution information in Part 2 and you do not need to complete these fault current contribution entries. In this case it is likely that the DNO will require completion of Part 4 application at a later stage.

If you are providing the Generating Unit maximum fault current contribution it is necessary to provide any other significant site impedance data to enable the DNO to calculate the fault current contribution from the Generating Unit(s) at the Connection Point. A sketch marked with the transformer and circuit resistance and reactance should be provided. This can be in ohms or per unit. If provided in per unit the base should be stated. This can be provided per meter together with the total circuit length, or for the total circuit length.