



NEW CONNECTION APPLICATION FORM

Please submit your completed application form to:

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

If you need any help to complete this form please contact us:

getconnected@northernpowergrid.com

0845 070 2703

Opening hours:

Monday - Friday

8:00am - 8:00pm

Saturday

9:00am - 5:00pm

APPLYING FOR A NEW CONNECTION

HELPING YOU FILL IN THIS FORM

Help with completing the form and getting your generation connected. If you need any more help with completing this form, please go to our help and information guidance at the back of the application form or call us on 0845 070 2703.

HELP WITH SECTION 1 YOUR DETAILS

Please provide your full correspondence address including any street number and your full postcode. It is often easier to contact you by email or mobile phone. Please provide these details if you are happy for us to contact you via these methods.

HELP WITH SECTION 2 YOUR CONNECTION

For each application, we will provide you with a unique Northern Powergrid reference number.

If you have multiple applications with us, you may want to provide a different reference for each. This will help with identifying each one if we need to discuss them with you.

If the site address is different to the address provided in section 1 then please provide us with the full address including street number and full postcode.

So that we can determine the work you need and pass the application to the right team, we need you to provide the following:

- the number of connections you need;
- the type of property that is being connected;
- the type of heating that will be used and
- the required load per property.

If you need a temporary connection, please let us know. We will need the type and load required along with the number of days you need the temporary connection for. We will then provide you with a separate quotation.

More information is available in the help and information guidance at the back of this application to provide further detail for each question.

HELP WITH SECTION 3 WHAT ELECTRICAL EQUIPMENT ARE YOU CONNECTING'

All the questions in this section are to help us identify if there is anything that you will be installing that could affect the type or size of connection you require.

If you answer 'no' to any of these questions then please go straight to the next question, if the answer is yes then please provide the details requested below the question.

More information is available in the help and information guidance at the back of this application to provide further detail for each question.

HELP WITH SECTION 4 NEW GENERATION

If you are not installing any generation equipment, i.e. PV cells, wind turbines, then answer 'no' to the first question and then go to **section 5 'your site plan'**.

If you are planning to install a generator, or multiple generators, we need the full technical details of the equipment and its location. The connections process can change depending on the size of generation equipment to be installed.

If your generation will create less than 50 kilowatts of power please answer up to question **4c** only and then move to **section 5 'your site plan'**.

For question **4c** we need you to provide:

- details of the type of generation you are installing (photovoltaic panels, wind turbines, hydro, biomass or combined heat and power);
- how many generator sets you are installing;
- the size and the max export;
- rated current and rated voltage of each set (you only need to populate this information once if all sets are the same size).

Please also provide a single line diagram of each proposed generation installation with your application.

If the answer to question **4b** confirms that your generation will create more than 50 kilowatts of power then please move straight to question **4d**.

If the generation is for standby purposes or won't run for more than five minutes a month then please move to **section 5 'your site plan'** once you have confirmed this on questions **4d** or **4e**.

We will contact you if we require any further information on your proposed generator.

If your generation is not for standby purposes, or will run for more than five minutes per month we need you to answer question **4g**. We will need the details of the type of generation you will be installing and for question **4h** we will need further detail on each generation set. If you have more than one set and/or are different sizes, please duplicate the 'generation set' form for each type of generation.

HELPING YOU FILL IN THIS FORM

HELP WITH SECTION 5 SITE PLANS

For us to be able to provide you with an estimate you only need to provide us with a site location plan showing the site boundary/ownership, you can use an ordnance survey or a land registry plan. If you don't have a site plan we may have one on record, please contact our connections team on **0845 070 2703**

For us to be able to provide you with a quotation you will need to provide us with:

- a site location plan showing the site boundary, you can use an ordnance survey or a land registry plan. If you don't have a site plan we may have one on record, please contact our connections team on **0845 070 2703**
- a plan, at an appropriate scale (preferably scaled 1:500) which indicates the layout of buildings, roads and proposed metering points and for a larger site such as industrial units, then you may require a substation installed on your site, if you do we will contact you to request a plan showing the proposed location.

HELP WITH SECTION 6 YOUR CONNECTION DATE

Please provide us with the date you would like us to carry out your connection and the date you expect to complete the work on site. We will use these dates as a guide but we will contact you on acceptance of a quotation to arrange and confirm a suitable connection date.

HELP WITH SECTION 7 SITE INFORMATION

The questions in this section will help us assess if there are any environmental issues that we will need to consider while completing your connection. We recognise that a proportion of our activities have an effect on the environment and we, are therefore, and committed to complying with relevant environmental legislation, other important environmental obligations and a policy of pollution prevention.

HELP WITH SECTION 8 ADDITIONAL INFORMATION

It is often easier to contact you by email or mobile phone, but it is your choice. Please tell us how you would like us to contact you if we have a query and how you would like to receive your quotation. We would like to know if you are ready to accept our quotation and proceed with the work or if you are just at the stage where you would like to understand what the cost of your connection might be.

HELP WITH SECTION 9 SIGNATURE

Please provide your signature to confirm your application along with the date. If you are applying on behalf of a company please include your position within the company.

If you need any assistance completing this form, please refer to the Help and Information guidance at the back of this form or call us on 0845 070 2703.

SECTION 1 YOUR DETAILS

* Signifies a mandatory field

Name *

Address *

Email *

Phone *

Postcode*

SECTION 2 YOUR CONNECTION

2a. How do you want us to refer to your project? E.g. Project 123

2b. Site Address - If different to above*

Postcode

2c. What would you like to connect?*

Please provide your required load per connection.

Property Type	No. of connections	Heating source		Load (per property)
House	<input type="text"/>	<input type="checkbox"/> Electric	<input type="checkbox"/> Other	<input type="text"/> kW
Flat / Apartment	<input type="text"/>	<input type="checkbox"/> Electric	<input type="checkbox"/> Other	<input type="text"/> kW
Landlord / Commercial / Industrial	<input type="text"/>	<input type="checkbox"/> Electric	<input type="checkbox"/> Other	<input type="text"/> kW

- If you have more plots to detail, please include as additional sheets.

2d. Do you need a temporary connection?

We will provide a separate quotation for your temporary connection.

Yes No - Go to section 3 'What electrical equipment are you connecting?'

Type Single Phase Three Phase Load kVA

How long is the temporary connection required for? days

SECTION 3

WHAT ELECTRICAL EQUIPMENT ARE YOU CONNECTING?

3a. Will you be installing any electric heating - including electric showers, water heaters and electric heaters? *

Yes No - Go to question 3b

Please provide the total load for each premises for any electrical heating you plan on installing. If you need to detail additional premises, please include as additional sheets

Type	No. of	Load (kW)
Electric shower	<input type="text"/>	<input type="text"/> kW
Water heaters	<input type="text"/>	<input type="text"/> kW
Storage heaters	<input type="text"/>	<input type="text"/> kW
Direct-Acting Space Heating (DASH)	<input type="text"/>	<input type="text"/> kW
Other electric heating	<input type="text"/>	<input type="text"/> kW

3b. Will you be installing any ground source heat pumps - including those used for underfloor heating? *

If the equipment your installer is using does not comply with BS-EN 61000/3/2 and 61000/3/3 they will need to provide us with the harmonic information for the ground source heat pump. Failure to provide this information may result in delay to your quotation.

Yes No - Go to question 3c

How many pumps do you plan to install?

Pump 1

Phase	Starting Current (amps) *	Rating (kW) *	Make and Model
<input type="checkbox"/> Single <input type="checkbox"/> Three Phase	<input type="text"/>	<input type="text"/>	<input type="text"/>

Does the ground source heat pump comply with BS-EN 61000/3/2 and BS-EN61000/3/3? Yes No

Pump 2

Phase	Starting Current (amps) *	Rating (kW) *	Make and Model
<input type="checkbox"/> Single <input type="checkbox"/> Three Phase	<input type="text"/>	<input type="text"/>	<input type="text"/>

Does the ground source heat pump comply with BS-EN 61000/3/2 and BS-EN61000/3/3? Yes No

- If you need to detail any further pumps, please include as additional sheets.

3c. Will you be installing any air source heat pumps - including those used for underfloor heating or warm air systems? *

If the equipment your installer is using does not comply with BS-EN 61000/3/2 and 61000/3/3 they will need to provide us with the harmonic information for the air source heat pump. Failure to provide this information may result in delay to your quotation.

Yes

 No - Go to question 3d

How many pumps do you plan to install?

• Pump 1

Phase	Starting Current (amps) *	Rating (kW) *	Make and Model
<input type="checkbox"/> Single <input type="checkbox"/> Three Phase	<input type="text"/>	<input type="text"/>	<input type="text"/>

Does the air source heat pump comply with BS-EN 61000/3/2 and BS-EN61000/3/3? **Yes** **No**

• Pump 2

Phase	Starting Current (amps) *	Rating (kW) *	Make and Model
<input type="checkbox"/> Single <input type="checkbox"/> Three Phase	<input type="text"/>	<input type="text"/>	<input type="text"/>

Does the air source heat pump comply with BS-EN 61000/3/2 and BS-EN61000/3/3? **Yes** **No**

- If you need to detail any further pumps, please include as additional sheets.

3d. Will you be installing any motors - including those used for compressor driven air conditioners?

Examples of equipment with motors include: swimming pools, lifts, industrial fans, blowers and pumps, machine tools and large power tools. We do not need to know about household appliances like a fridge freezer, washing machine and tumble dryer.

Yes

 No - Go to question 3e

How many motors do you plan to install? - We only need the technical details for the two largest.

• Motor 1

Phase	Phase	Starting Current (amps) *	Rating (kW) *	Will this motor start more than once an hour?
<input type="checkbox"/> Single <input type="checkbox"/> Three Phase	<input type="checkbox"/> Soft Start <input type="checkbox"/> Direct on line <input type="checkbox"/> Star Delta	<input type="text"/>	<input type="text"/>	<input type="checkbox"/> Yes

• Motor 2

Phase	Phase	Starting Current (amps) *	Rating (kW) *	Will this motor start more than once an hour?
<input type="checkbox"/> Single <input type="checkbox"/> Three Phase	<input type="checkbox"/> Soft Start <input type="checkbox"/> Direct on line <input type="checkbox"/> Star Delta	<input type="text"/>	<input type="text"/>	<input type="checkbox"/> Yes

3e. Will you be installing any welders?

Types of welders include: MIG, TIG, plasma cutters, stud welders, machine tools and large power tools.

Yes **No - Go to question 3f**

How many welders do you plan to install?

• Welder 1

Input Voltage (volts) *	Rating (kW) *	Welds per minute	Phase	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/> Single	<input type="checkbox"/> Three Phase

• Welder 2

Input Voltage (volts) *	Rating (kW) *	Welds per minute	Phase	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/> Single	<input type="checkbox"/> Three Phase

- If you need to detail any further welders, please include as additional sheets.

3f. Will you be installing any equipment causing distortion?

Examples of equipment which could cause distortion include: uninterrupted power supplies, large numbers of computer power units, discharge lighting, battery chargers, DC motor control.

Yes **No - Go to question 3g**

Please provide details of the equipment that will effect the harmonics of your supply

Please note your equipment must be G5/4 compliant.

Please include any plans or documentation with this form.

3g. Please provide a summary of any unspecified or unusual electrical equipment you're intending to install?

SECTION 4
NEW GENERATION

4a. Do you plan on installing any new generation? (I.e. PV panels) *

Yes No - Go to section 5 'Your Site Plan'

4b. Will your generation create more than 50 kilowatts of power per premises - including existing generation?

Yes - Go to question 4d No

4c. Are you planning to install any of the following? *

If you need to outline any further sets, please include as additional sheets.

Photovoltaic (PV) panels

How many generator sets are you installing?

Are all the generator sets the same size?

Yes No - Provide details of each generator set at each premises.

• Premises 1	• Premises 2	• Premises 3	• Premises 4	• Premises 5
Max Export (kW) *	Max Export (kW) *	Max Export (kW) *	Max Export (kW) *	Max Export (kW) *
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Rated Current (amps) *	Rated Current (amps) *	Rated Current (amps) *	Rated Current (amps) *	Rated Current (amps) *
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Rated Voltage (volts) *	Rated Voltage (volts) *	Rated Voltage (volts) *	Rated Voltage (volts) *	Rated Voltage (volts) *
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

You must include a single line diagram of your proposed generation installation with this application, failure to do so may delay your quotation. If you need to provide details for additional premises, please include as additional sheets.

• if you have no further generation types now go to **Section 5 'Your Site Plan'**

Wind turbines - including small garden turbines

How many generator sets are you installing?

Are all the generator sets the same size?

Yes

No - Provide details of each generator set at each premises

• Premises 1	• Premises 2	• Premises 3	• Premises 4	• Premises 5
Max Export (kW) *	Max Export (kW) *	Max Export (kW) *	Max Export (kW) *	Max Export (kW) *
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Rated Current (amps) *	Rated Current (amps) *	Rated Current (amps) *	Rated Current (amps) *	Rated Current (amps) *
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Rated Voltage (volts) *	Rated Voltage (volts) *	Rated Voltage (volts) *	Rated Voltage (volts) *	Rated Voltage (volts) *
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

You must include a single line diagram of your proposed generation installation with this application, failure to do so may delay your quotation. If you need to provide details for additional premises, please include as additional sheets.

• If you have no further generation types now go to **Section 5 'Your Site Plan'**

Hydro - including water wheels, underground hydroelectric plant.

How many generator sets are you installing?

Are all the generator sets the same size?

Yes

No - Provide details of each generator set at each premises

Premises 1	Premises 2	Premises 3	Premises 4	Premises 5
Max Export (kW) *	Max Export (kW) *	Max Export (kW) *	Max Export (kW) *	Max Export (kW) *
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Rated Current (amps) *	Rated Current (amps) *	Rated Current (amps) *	Rated Current (amps) *	Rated Current (amps) *
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Rated Voltage (volts) *	Rated Voltage (volts) *	Rated Voltage (volts) *	Rated Voltage (volts) *	Rated Voltage (volts) *
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

You must include a single line diagram of your proposed generation installation with this application, failure to do so may delay your quotation. If you need to provide details for additional premises, please include as additional sheets.

• if you have no further generation types now go to **Section 5 'Your Site Plan'**

Biomass - including wood, slurry and biofuel burners.

How many generator sets are you installing?

Are all the generator sets the same size?

Yes

No - Provide details of each generator set at each premises

• Premises 1	• Premises 2	• Premises 3	• Premises 4	• Premises 5
Max Export (kW) *	Max Export (kW) *	Max Export (kW) *	Max Export (kW) *	Max Export (kW) *
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Rated Current (amps) *	Rated Current (amps) *	Rated Current (amps) *	Rated Current (amps) *	Rated Current (amps) *
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Rated Voltage (volts) *	Rated Voltage (volts) *	Rated Voltage (volts) *	Rated Voltage (volts) *	Rated Voltage (volts) *
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

You must include a single line diagram of your proposed generation installation with this application, failure to do so may delay your quotation. If you need to provide details for additional premises, please include as additional sheets.

• if you have no further generation types now go to **Section 5 'Your Site Plan'**

Combined Heat & Power (CHP) - including gas turbines.

How many generator sets are you installing?

Are all the generator sets the same size?

Yes

No - Provide details of each generator set at each premises

Premises 1	Premises 2	Premises 3	Premises 4	Premises 5
Max Export (kW) *	Max Export (kW) *	Max Export (kW) *	Max Export (kW) *	Max Export (kW) *
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Rated Current (amps) *	Rated Current (amps) *	Rated Current (amps) *	Rated Current (amps) *	Rated Current (amps) *
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Rated Voltage (volts) *	Rated Voltage (volts) *	Rated Voltage (volts) *	Rated Voltage (volts) *	Rated Voltage (volts) *
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

You must include a single line diagram of your proposed generation installation with this application, failure to do so may delay your quotation. If you need to provide details for additional premises, please include as additional sheets.

• Now go to **Section 5 'Your Site Plan'**

4d. Is this generation for standby purposes?

Yes* - Go to **Section 5 'Your Site Plan'** **No**

* If the generation you are installing is available as a back up or an alternative to the Northern Powergrid supply then it should not be connected in parallel.

If the generation is for standby purposes only then you must install equipment to ensure that the generation plant cannot be connected in parallel to a Northern Powergrid system in accordance with ESQC regulation 21 and The Requirements for Electrical Installations, BS7671.

4e. Will your generation run for more than 5 minutes per month?

Yes **No*** - Go to **Section 5 'Your Site Plan'**

* If the total period of parallel operation is less than 5 minutes in any given month, and is for generation plant testing purposes only, the requirements for interface protection may be relaxed. We will provide details of the protection required as part of your formal quotation.

4f. Would you like to apply in kilowatts (kW) or megawatts (MW)?

kW **MW**

4g. Are you planning to install any of the following?

If you have more than one set and/or are different sizes please duplicate the 'Generation set' form for each type of generation.

Photovoltaic (PV) panels

How many generator sets are you installing?

Are all the generator sets the same size?

Yes **No** - Provide details of each generator set

Wind turbines - including small garden turbines

How many generator sets are you installing?

Are all the generator sets the same size?

Yes **No** - Provide details of each generator set

Hydro - including water wheels, underground hydroelectric plant.

How many generator sets are you installing?

Are all the generator sets the same size?

Yes **No** - Provide details of each generator set

Biomass - including wood, slurry and biofuel burners.

How many generator sets are you installing?

Are all the generator sets the same size?

Yes **No** - Provide details of each generator set

Combined Heat & Power (CHP) - including gas turbines.

How many generator sets are you installing?

Are all the generator sets the same size?

Yes **No** - Provide details of each generator set

4h. Are you planning to install any of the following? If you need to outline any further types or sets, simply duplicate this page.

Generation type

Generation set #

e.g. Photovoltaic (PV) panels

• What type of generation set will this be?

Synchronous generator

Series converter / inverter connected generator

Fixed speed induction generator

Other / I don't know **please specify*

Double fed induction generator

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) (MW\kW)

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)

• What security is required for your connection?

<input type="checkbox"/> Single circuit connection	<input type="checkbox"/> Manually switched alternative connection
<input type="checkbox"/> Automatically switched alternative connection	<input type="checkbox"/> Firm connection (secure for first circuit outage)

• Will the generation plant supply the electricity to on-site premises?

Yes No

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

• Please provide us with your on-site operational diagrams.

• Are you installing an interface transformer?

Yes No

If yes, for this transformer, what will be the:

Rated (apparent) power (MVA)	<input type="text"/>	Maximum ratio tap (%)	<input type="text"/>
Rated voltage ratio (on principal tap) (kV/kV)	<input type="text"/>	Minimum ratio tap (%)	<input type="text"/>
Positive sequence resistance (per unit)	<input type="text"/>	Method of voltage control	<input type="text"/>
Positive sequence reactants at principal tap (per unit)	<input type="text"/>		

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

Yes No Don't know

SECTION 5

SITE PLANS

* Please include a plan that clearly indicates your site boundary and proposed meter position, it should be on an **ordnance survey** or **land registry** background. Failure to provide a site location plan and builders/developers plans may result in a delay.

If you do not have a plan, please contact us on **0845 070 2703** and we will send you one that you can use.

SECTION 6

YOUR CONNECTION DATE

6a. When would you ideally like this connection to be made?

 DD/MM/YYYY

6b. When do you anticipate completing the works on-site?

 DD/MM/YYYY

All works shall start and finish within reasonable time scales, suspension of works at your request may mean we have to provide you with a revised quotation.

SECTION 7

SITE INFORMATION

7a. Is the site classed as a 'site of specific interest' or listed under any other classification e.g. Historical site, conservation area, listed building? *

 Yes - provide details below **No** **Don't know**

7b. Are there any trees or hedges on the site that are protected by preservation orders? *

 Yes - provide details below **No** **Don't know**

7c. Are there any existing water courses, culverts or drainage ditches on or adjacent to the site? *

 Yes - provide details below **No** **Don't know**

7d. Does the site contain any substances hazardous to health of the environment e.g. Asbestos, Hydrocarbons? *

Yes - provide details below **No** **Don't know**

7e. What is the likelihood of flooding from rivers and the sea on your development? *

Low **Medium** **High**

Further information can be found on the environment agency website -
<http://www.gov.uk/prepare-for-a-flood/find-out-if-youre-at-risk>

7f. Do you require us to do any on-site digging or excavation? *

Yes **No** **Don't know**

7g. Are you the landowner? *

Yes We may ask you to prove that you are the landowner and request a copy of your land registry documentation.

No We may ask you to prove that you have the owner's authority to act as sole agent and apply for a connection on their behalf. If you have this letter and a copy of the land registry documentation available please include it with this application to avoid delaying your application. Your application may not be valid if we request this information and you are unable to provide it. A template for this letter can be found in the help and information section of our website.

7h. Please provide any other details you feel are relevant to your application

A large, empty grey rectangular area intended for providing additional details relevant to the application.

SECTION 8
ADDITIONAL INFORMATION

8a. If we have a query about the information you have provided, how would you like us to contact you?*

Email Telephone

8b. How would you prefer to receive your quotation information?*

Email Post Both

8c. This application is for:*

Budget Cost* Quotation**

* If you have been unable to provide us with all the relevant information and you are not ready to accept a quote and proceed with the work on site then apply for a budget cost.

** If you have completed all the sections that are relevant to your application and are ready to accept the quote and proceed with the work on site then apply for a quotation.

SECTION 9
SIGNATURE

Signature of applicant *

Date *

Print name *

Position in company - *if applicable*

Data Protection

We will use the details you provide to process your connection request and to monitor the service we provide. Your details will be kept securely and will not be used for marketing purposes. We have an obligation to provide the results of customer satisfaction surveys on the services we provide to Ofgem, the electricity industry regulator. Therefore you may be contacted by our appointed Market Research Company to complete a brief satisfaction survey of our service delivery performance.

If you do not wish to be contacted as part of these surveys please tick

HELP AND GUIDANCE FOR - SECTION 2. YOUR CONNECTION

- **What is the right load for my home?** For most homes, an 18kW, single phase connection will be sufficient unless you are installing anything that does not plug into a standard home 13Amp socket; for example, a heat pump, storage heaters, a hot tub, a swimming pool, solar panels, a wind turbine or an electric vehicle charging point. If you plan to install any of these you may want to talk to your electrician who can help you provide the correct information.

- **What is the right load for my unit?** You can discuss this with your chosen electrician who will help you find the information you need to provide, a typical small three phase connection will provide you with an 80Amp supply.

- **What are the types of heating?** There are many types of heating systems available, you may choose a system that uses hot air, hot water, electricity, steam and some even use the heat stored beneath your home.

Electric heating is a system where electrical energy is converted to heat and is commonly used for things such as space heaters, water heating and electric cookers.

Other heating types are natural gas, propane gas, oil, geothermal heating and wood burning.

- **What is a landlord supply?** For multi-occupancy buildings, e.g. flats and commercial buildings there are communal areas (e.g. stairwells, entrance lobbies) that need to be provided with electricity for heating and lighting. This connection is provided for by the landlord of the building in a single position within the premises.

- **What is a temporary connection?** Temporary connections are often used by builders to power site cabins or tools and sometimes to supply power to temporary homes, these are usually installed within the site boundary.

Did you know you can also request a temporary connection whilst we move an existing connection?

HELP AND GUIDANCE FOR - SECTION 3. WHAT ELECTRICAL EQUIPMENT ARE YOU CONNECTING?

- **Why do we need to know about electrical heating?** Electric showers, water heaters and electric heaters require more electricity than appliances such as TVs, washing machines, cookers etc. and your connection needs to be capable of providing this.

- **What are ground source heat pumps?** Ground source heat pumps extract heat from under your property to heat radiators, underfloor or warm air heating systems, and hot water.

We need to know about heat pumps as they have a motor which uses a lot of power on start-up.

- **Does the ground source heat pump comply with BS-EN 61000/3/2 and 61000/3/3?** Your installer will need to provide us with the harmonic information for the ground source heat pump. This information is normally contained on the manufacturers product guide. If you are unable to provide this information it may delay in the processing of your quotation.

- **Why do we need to know about motors?** Any equipment that uses a large amount of power can sometimes cause dips in supply for other customers connected to our network. Electric motors and welders usually will cause this on start-up.

- **Why do we need to know about welders?**

Any equipment that uses a large amount of power can sometimes cause dips in supply for other customers connected to our network. Electric motors and welders usually will cause this on start-up.

- **What equipment causes distortion?**

Typical equipment that could cause a problem if you are installing large numbers of them:

- Computers
- Uninterrupted Power Supplies
- Discharge Lighting (fluorescent, mercury, sodium, etc.)
- Battery Chargers

These types of electronic equipment cause harmonic currents which can cause a variety of problems that are sometimes difficult to attribute and eliminate. The heating effects of harmonic currents can cause destruction of equipment, conductors, and fires. The results can be unpredictable legal and financial ramifications. Voltage distortions can lead to overheating of equipment, electronic equipment failure, expensive downtime, and maintenance difficulties.

- **What is G5/4?**

The G5/4 document was produced to protect electrical networks from **VOLTAGE DISTORTION**. It details the maximum levels of harmonic distortion that electricity consumers are permitted to export onto the distribution network. Therefore, consideration must be given to the regulatory requirements of ER G5/4 - 1 and the practical application of LV Harmonic mitigating equipment. The document forms part of the supply agreement between the Electricity Company and the consumer. Enforcement of the limits can include a refusal to supply your premises until it can be demonstrated that harmonic levels have been adequately addressed, which remains the responsibility of the consumer.

HELP AND GUIDANCE FOR - SECTION 4. NEW GENERATION

- **How does this information help?**

If you are planning to install a generator, or multiple generators, we will need the full technical details of the equipment and its location. The connections process can change depending on the size of generation equipment to be installed.

HELP AND GUIDANCE FOR - SECTION 5. SITE PLANS

- **What plans must I send with my application?**

Estimate

For an estimate you only need to provide us with a site location plan showing the site boundary, you can use an ordnance survey or a land registry plan.

If you don't have a site plan we may have one on record, please contact our connections team on **0845 070 2703**

Quotation

For a quotation you need to provide us with a site location plan showing the site boundary, you can use an ordnance survey or a land registry plan.

If you don't have a site plan we may have one on record, please contact our connections team on **0845 070 2703**

A Plan, at an appropriate scale (preferably scaled 1:500) which indicates the layout of buildings, roads and proposed metering points and for a larger site such as industrial units, then you may require a substation installed on your site, if you do we will contact you to request a plan showing the proposed location.

HELP AND GUIDANCE FOR - SECTION 7. SITE INFORMATION

- **Are you applying on behalf of someone else?**

If you are not the owner or occupier of the premises; or an authorised supplier acting with the consent of the owner or occupier of the premises, then you are acting on behalf of somebody else. An example of this would be an electrician applying for their customer.