# Guidance for Connections at EHV or 132kV

WESTERN POWER DISTRIBUTION

*Serving the Midlands, South West and Wales*

westernpower.co.uk

**We understand that the connections process is complex and that there are significant amounts of information to take into account when determining where and how to connect to the Distribution Network.**

This document seeks to provide guidance for both demand and generation on the end to end process of getting connected to Western Power Distribution's system at 33kV and above. It is separated into three distinct sections which consider the information you may need prior to submitting an application for connection, the applications process and information relating to the post-acceptance process.

## Contents

# PRE-APPLICATION

**There are a number of things to consider before you reach a point of applying for a connection. This can include assessing information available to determine the most suitable location for you to site a generator, understanding the proximity of the existing network or considering the likelihood of triggering network reinforcement to assess the viability of a development. This section provides an insight in to the information that is available to help you make an informed decision.**

This section is separated into 4 key components:

Network Information
Network strategy and long term development
Connection Charge
Pre-application contact with WPD representatives

## Network Information

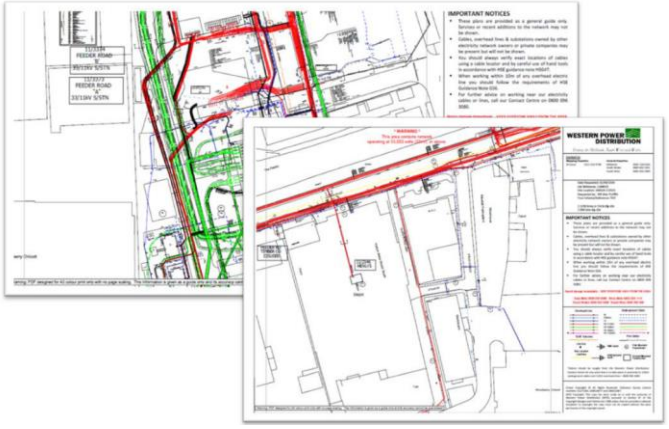
A number of information resources relating to the existing network, including location of assets and available capacities, are available at: www.westernpower.co.uk/our-network under the Network Information section.

### Capacity Maps, Plans and Information

#### Network Plans and Information

We have a range of network asset data accessible by third parties through a variety of services. We have produced a brochure to help you to understand what is available and which services are appropriate to you. Resources include:

- LinesearchBeforeUDig
- Small scale Mapping
- WPD Planning Portal



This link also contains information relating to DataPortal2, an online facility with the ability to download WPD asset data and EMU online, a new facility giving a web browser based Geographic Information System (GIS) providing easy access to WPD's asset information and network records. Registration is required to access the DataPortal2.

Key features of DataPortal2 include:

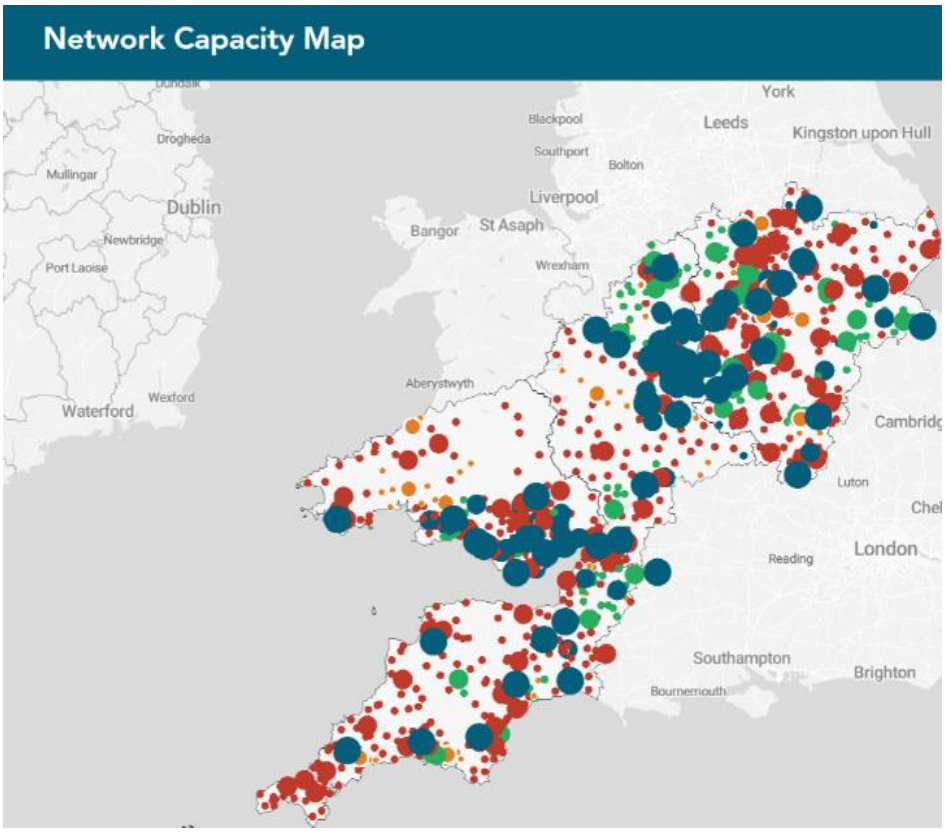
- Straightforward interface and navigation including basic measuring tools and location;
- Gazetteer by Postcode, street or locality using OS Open Names
- Gazetteer by WPD equipment enabling search by WPD named or numbered assets
- Use of grid references or Eastings/Northings to locate sites;
- Facility to query assets' attributes e.g. Conductor Type, Feeding Substation;
- HV & EHV schematics;
- Print to high quality PDF possible at A4 or A3 Paper sizes, from 1:50 to 1:1250 scale.

## Location of WPD's equipment

Never take chances if you're planning to work near our equipment, we're here to help you before you start the process. Customers can request a copy of a local network plan using the LineSearchBeforeUDig system. Domestic and private customers can make a plan request directly using the details provided.

## Network Capacity Map

The network capacity map provides an indication of the networks capability to connect large-scale developments to major substations. Colour grading is used as a guide to the areas of the network where connection is more likely to be achieved without significant reinforcement. It is worth noting that this is only an indication and does not replace a full formal application for determining available network capacity.



# Information for Generators

## Generation Capacity Register

A register listing generators that are connected to our network, or which are in the process of applying for a connection. Each generator is listed with its capacity, generation technology and where it connects to our network. Generators connected at 11kV and below are aggregated by technology at Primary substation level.

A map is also available displaying large generator connections at 66kV and above. The generators are colour coded by type to identify:

- Photovoltaic
- Wind
- Battery
- Other

## Loss of Mains

Distribution Network Owners and National Grid ESO are teaming up through the accelerated loss of mains change programme to accelerate compliance with new requirements in the Distribution Code. The new requirements specify that the current protection settings required for any new generation connecting to the network must now also be applied retrospectively to all existing generation with loss of mains protection. Links are available to further information on the Electricity Networks Association website and a list of recognised contractors.

## Statement of Works

We are required (under the Connection and Use of System Code) to make a request for Statement of Works (SOW) to National Grid Electricity plc (NGET) in relation to the potential impact of connection of embedded generation on the National Electricity Transmission System (NETS). Connections ≥1MW are provided individually under the process, whilst connections of 100kVA to 1MW are aggregated for NGET assessment.

We have published information and a guidance document which provides further detail on the SoW process. In addition, where customers are required to fund the cost of NGET's works they may be required to assume both attributable and wider system liabilities and also provide security to cover that liability. We have provided further information on WPD's requirements for satisfying liability and security conditions.

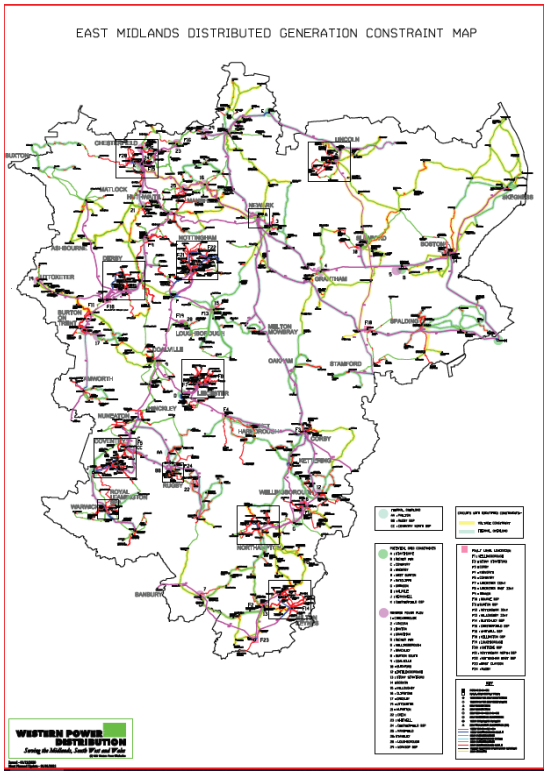
## Generator Portal

Access to the Western Power Distribution generator portal is available via our website, providing visibility for future outages/export constraints and general background information for each generator site. This information is focussed for generator connections at 33kV, 66kV and 132kV. Visit https://generation.westernpower.co.uk for more information.

To register for the generator portal, please provide a unique email account for your business which has to be available for all appropriate staff within your business to use and contact Neil Mansell on 02920 535706 or nmansell@westernpower.co.uk (Monday to Friday).

## Distributed generation EHV constraint maps

Here you can find an overview map of our EHV networks (33kV and above), highlighting those circuits which are operating at or near their limits for the connection of any further Distributed Generation (DG). The reason for the constraint is shown as either a 'thermal' or 'voltage' limitation.



## Flexible Connections

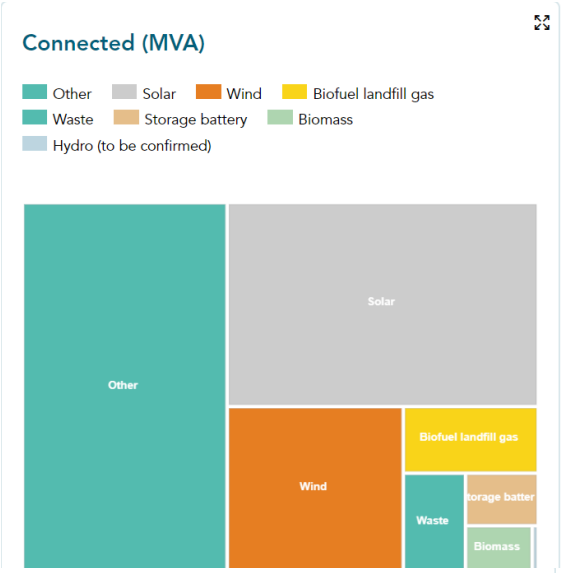
### Active Network Management

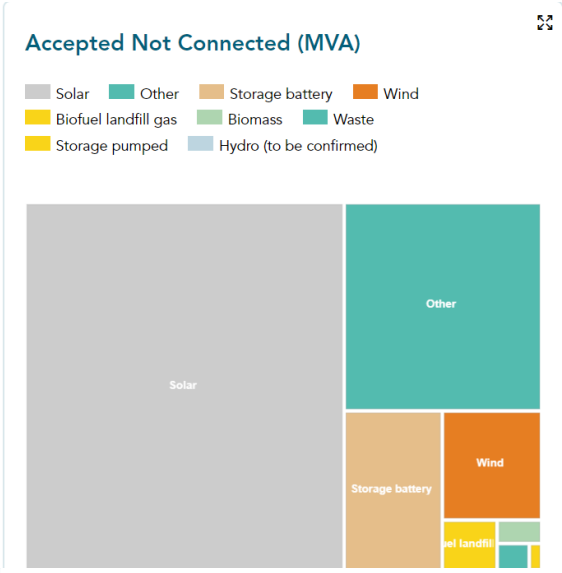
In areas where there are multiple complex constraints affecting a number of customers over a long time period, an Active Network Management (ANM) system will be implemented which can help to avoid the need for costly network reinforcement. Distributed control systems continually monitor limits on the network and allocate capacity to customers based on their application date. This Last In, First Out (LIFO) hierarchy prioritises the oldest connections when issuing capacity but is scalable so that new entrants will get access to capacity when it becomes available.

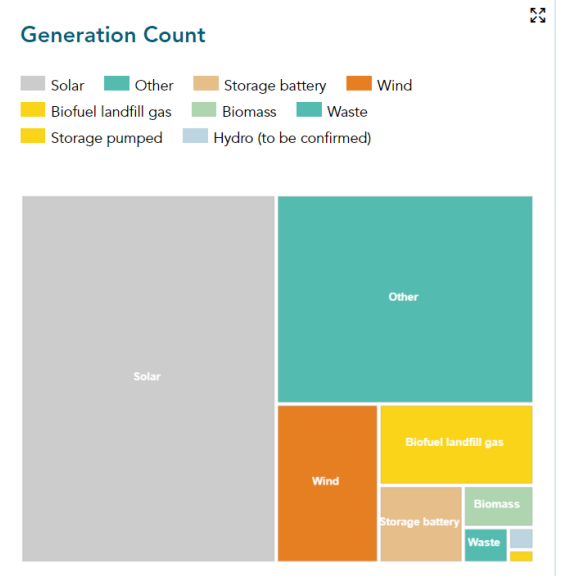
Our website lists the current Active Network Management zones and those which are currently in development.

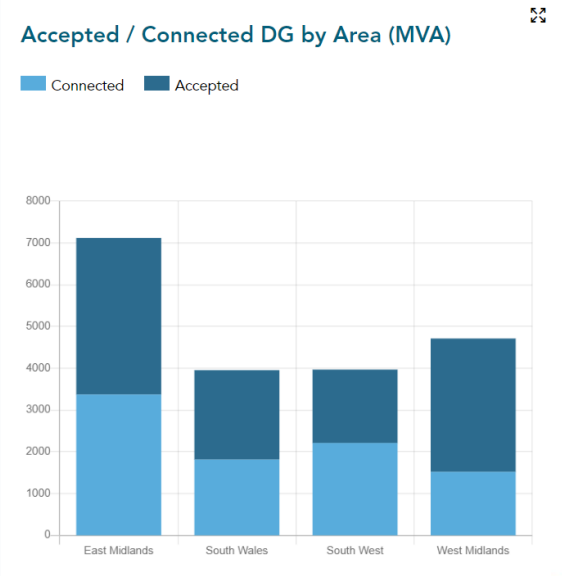
### Embedded Capacity Register

Formally known as the System Wide Resource Register, this register provides information to electricity network stakeholders on the generation and storage resources (≥1MW) that are connected, or accepted to connect, to Western Power Distribution's network and is updated on a monthly basis. The data can also be downloaded.



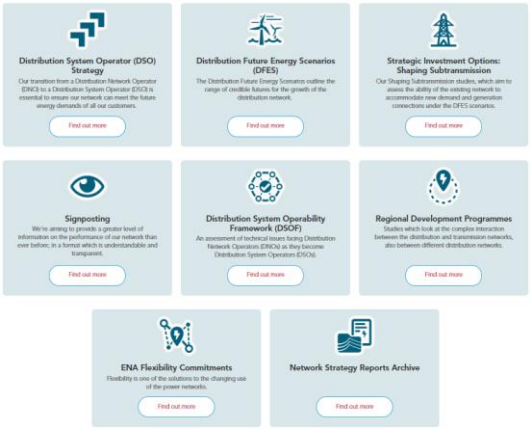



## Network Strategy and Long Term Development

We continually look to the future and consider the long term developments of our network and the strategy required to meet the future energy demands of all our customers. Relevant strategies, statements and supporting information are available at: www.westernpower.co.uk/our-network under the About Our Network section.

### Network Strategy

Having a strategy in place can help us to shape the future development of the distribution network and the role of WPD as a Distribution System Operator. A number of links are available to information such as Distribution Future Energy Scenarios (DFES), the ENA Flexibility Commitments and including:




### Distribution System Operator (DSO) Strategy

Our transition from Distribution Network Operator (DNO) to a Distribution System Operator (DSO) is essential to ensure our network can meet the future energy demands of all our customers. The strategy informs our customers and stakeholders of the steps we are taking towards becoming a DSO and the progress made to date.

### Strategic Investment Options: Shaping Subtransmission

The Distribution Future Energy scenarios are used as an input into our Shaping Subtransmission studies, which aim to assess the ability of the existing network to accommodate new demand and generation connections under the FES scenarios. This section includes links to the associated reports, accompanying information and webinars.

### Regional Development Programmes

Regional Development Programmes are studies which look at the complex interaction between the distribution and transmission networks, also between different distribution networks. As part of the Energy Networks Association Open Networks project, we have undertaken different RDP's on different areas of our network.

This includes an RDP in the West Midlands, seeking to allow energy storage, or other customers who can provide flexibility to the system, to participate in an emerging whole system energy market and receive revenues for delivering services when the system needs flexibility to deliver capacity in constrained areas.

### Long Term Development

The Long Term Development statement is compiled to assist current and future users of Western Power Distribution's network to identify and assess opportunities available to them for making new or additional use of our distribution system.

The statement provides an overview of the design and operation of the distribution network, together with data on the 132kV, 66kV and 33kV systems and the transformation levels down to 11kV. Due to the volume of data and speed with which it can become outdated, data on the 11kV and low voltage systems have not been included in the statements.

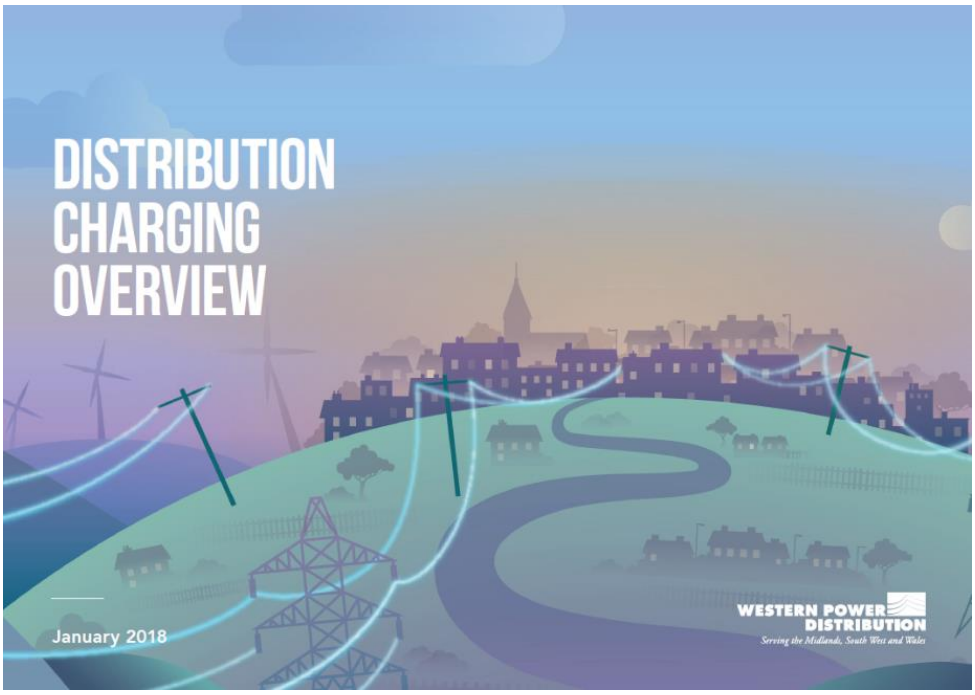
Separate statements are provided for each licensed area.

## Cost and Payment Considerations

We recognise that cost is a significant factor when considering the viability of a connection or development scheme, not only for the cost of physically connecting to the network but in consideration of the ongoing post connection Use of System charges which may apply.

### Use of System Charges

Our website provides useful information for major users about our ongoing charges for use of system, metering and the cost of getting connected to WPD's Distribution system. It includes an overview document of distribution charging, a webinar on distribution charging and podcasts relating to charging reform and distribution pricing.




### Connection Charges

The charges associated with the design and assessment of the requested connection(s) and for providing the necessary connection works will be set out in the Connection Offer. These charges are determined in accordance with our Statement of Methodology and Charges for Connection (Connections Charging Statement) which is available to view on our website below.

### Charging Statements

We publish charging statements relating to each Western Power Distribution licensed area for:

- Use of System Charges
- Connections Charging Statements

## Contact with WPD Representatives

We appreciate that it is important to listen to our customers with regards to your connection needs and we continually strive to improve the experience for our customers by listening to feedback and acting upon it.

To facilitate this, there are a number of methods in which you may engage with us.

### Connection Surgery Appointments

We understand that before you apply to us for a new connection, particularly for larger and more complex connections that require work at higher voltage levels, you often have questions and want to understand more about the process, timescales, technical considerations, consents/legal requirements and possible constraints of making a connection to the network in a particular area.

Discussing your plans with us at an early stage can help to provide a better insight to any potential network reinforcement and complexity issues that may arise and help you to establish the viability of an individual scheme before committing to a formal application and incurring associated costs (including assessment and design fees).

If you would like to discuss your plans with one of our design engineers you can request a Connections Surgery Appointment. When we receive your request we will call you within 2 working days to arrange an appointment to discuss your scheme and the options available to you. If we feel a follow up meeting would be beneficial we can arrange that too.

To find out more or to book an appointment then please get in touch:

**South West & Wales:** 0800 028 6229
**Midlands:** 0800 121 4909
**E:** wpdconnectappoint@westernpower.co.uk

Please mention that your enquiry is for connection surgery appointments when you contact us.

### Distributed Generation Owner Operator Forum

We hold a regular forum aimed at owners and operators of MW scale renewables connected to WPD's network. Working in partnership with Regen, these meetings provide an opportunity for DG owners and operators to engage with us, contribute towards improved processes and tackle arising issues.

Presentations and notes from previous events are published on our website at:

https://yourpowerfuture.westernpower.co.uk/our-engagement-groups/connection-customer-engagement/distributed-generation-owner-operator-forum

# APPLICATION PROCESS AND CONNECTION OFFERS

**When you are ready to apply, you will need to submit your application for connection and provide a minimum level of information to enable us to complete an assessment of the works required to facilitate your request.**

This section is separated into 5 key components:

Types of Connection Offer Available
Minimum Information
Letters of Authority
Application
Additional Information

## Types of Connection Offer Available

There are a number of different types of Connection Offer available, depending on your requirements. More information and example letter templates can be found on our website.

### Budget Estimate

If you are not ready to enter into a formal agreement for connection works you may opt for a budget estimate which will provide you with an estimate of the likely cost of connection. It is important to note that this is a desktop exercise and we will not undertake any detailed analysis of the network, technical studies or site visit.

### Connection Offer

A formal Connection Offer will be provided for new or augmented metered and unmetered connection applications where you have provided all the necessary information we require in order to make an assessment of the works required. The information we need is set out in the Minimum Information section of this guidance. The Connection offer will contain specific terms for connection and reference the general terms for connection. Once accepted, it becomes a binding contract between WPD and the named customer.

A Connection Offer is normally valid for 90 days after which it will automatically expire

The Connection Offer will provide a description of the non-contestable and contestable works required in order to provide you with the requested connections and the associated charges for us to carry out these works. Information about what works are contestable or non-contestable is available on our website.

Your Connection Offer will be split into two options:

- Option 1 – where WPD will undertake all identified contestable and non-contestable works
- Option 2 – where WPD will undertake only the non-contestable works and you may appoint a suitably accredited Independent Connection Provider (ICP) to undertake the contestable works.

Further information and a list of ICPs, including the type of works for which they have been accredited, are available from the accrediting body, Lloyds Register, under the National Electricity Registration Scheme (NERS) at www.lr.org

In some instances we may be able to provide a Connection Offer which reserves capacity over a long period of time for large scale developments with multiple premises.

More information is available at:
www.westernpower.co.uk/allocation-and-reservation-of-capacity

## CIC Point of Connection Offer

If you wish to appoint an Independent Connections Provider (ICP) to undertake the contestable works, you may request a Point of Connection Offer. This will provide for WPD to undertake the non-contestable works only. You will need to appoint a suitably accredited Independent Connection Provider (ICP) to undertake the contestable works.

Further information and a list of ICPs, including the type of works for which they have been accredited, are available from the accrediting body, Lloyds Register, under the National Electricity Registration Scheme (NERS) at www.lr.org

## Feasibility Study

In some instances you may not be ready to enter into a formal contract for connection works but feel a budget estimate will not provide the level of detail you require to consider the potential for development. We offer feasibility studies for which we will carry out a more detailed analysis of the network and provide an indicative connection assessment outlining the engineering scheme for the connection. The feasibility will include consideration of any reinforcement works identified.

Feasibility studies are a chargeable service as set out in Section 7 – Part B of the Connections Charging Statement.

## Study & Offer

If you are looking to connect Power Generating Modules, a Study & Offer quote enables you to assess the capacity options available without submitting multiple formal applications. This process is available for Power Generating Modules with a proposed export capacity of 5MVA and above.

Each application allows up to three different capacity options you may require. We will conduct a feasibility study for the approximate cost and works required to connect the generation to our network, including an indication of any reinforcement or diversionary works that may be required.

Upon completion, you have the choice to develop the feasibility study into a formal Connection Offer. If you accept one of the capacity options, a Connection Offer will be prepared and sent out in accordance with the Connection Guaranteed Standards of Performance.

If you choose to accept one of the feasibility study options within 5 working days, your application date will be retained. If the connection offer becomes interactive with other connection requests using the same part of the network, your application date will determine the position in the interactive queue.

## Variation to the Connection Offer

We aim to provide a comprehensive design and cost for the connection works. However, we recognise that in some instances changes need to be made and for connections at the higher voltages, tendering processes need to be applied. There may, therefore, be occasions where we need to vary the Connection Charge or specific clauses within the Connection Offer.

If you request changes to your connection requirements, we may need to consider whether these are allowable or should be subject to a new application. We have published a guidance document on allowable changes, available to view at www.westernpower.co.uk/downloads/57532

## Minimum Information

We will require a minimum level of information to be provided with your application. This will include the applicant's name, correspondence address and contact details, plus the site address, in all instances. This information will need to be combined with further information depending on the type of connection offer required.

### Metered Connections Connection Offers

- Site plan at an appropriate scale to indicate the site boundary, the layout of buildings and roads and, where the customer expects a substation(s) to be required, the proposed location of the substation(s). The plan should be free of unnecessary detail and suitable for use as a background layer for the proposal drawing.
- Proposed location of each metering point
- Date when the customer requires the connection(s) to be made
- Maximum capacity (kVA) at each metering point to be connected (for domestic premises whether electric space and water heating is to be installed) and interim capacity requirements for phased developments
- The extent of any Contestable works to be carried out by the customer (or their nominated ICP)
- Technical details of any electricity generator that is required to operate in parallel with the supply:
    - For micro-generators complying with the Engineering Recommendation G98 the G98 type test verification certificate
    - For other generating units the G99 standard application form and relevant associated documents. As a minimum parts 1-3 shall be completed.

  All application forms and type text verification forms can be found on WPD's website
- Technical details of any customer owned equipment that is likely to cause disturbance to the electricity supply (e.g. large motors).

The timing of the provision of information for metered connections may differ where the application is for a large scale development in accordance with the allocation and reservation of capacity processes. More information is available at www.westernpower.co.uk/allocation-and-reservation-of-capacity

### Metered Connections Budget Estimates

- Site plan at an appropriate scale to indicate the site boundary
- Indicative date when the customer requires the connection(s) to be made
- Total maximum capacity (kVA) requirement and interim capacity requirements for phased developments
- The extend of any contestable works to be carried out by the customer (or their nominated ICP)
- Summary technical details of any electricity generator that is required to operate in parallel with the supply stating as a minimum the number, type (e.g. photovoltaic) and size (rating and number of phases) for each different generator unit
- Summary technical details of any customer owned equipment that is likely to cause disturbance to the electricity supply stating as a minimum the number, type (e.g. large motors) and rating (starting current and frequency of operation) for each different item of equipment

### Unmetered Connections Connection Offers

- Plan at an appropriate scale to indicate the proposed location of each item of unmetered equipment
- Date when the customer requires the connection(s) to be made
- Maximum capacity (watts) at each item of unmetered equipment to be connected
- Description of each item of unmetered equipment to be connected (e.g. street light), transferred or disconnected
- Technical details of any non-standard item of unmetered equipment to be connected

Note: WPD will also request the applicant provides the MPAN associated with the Unmetered Connection Agreement Location details.

## Additional Information for WPD provided connection works

In some cases, after commencement of design and assessment, additional information will become required. Where additional information is requested, the clock will be paused until the information is received in accordance with the Connection Guaranteed Standards of Service.

Additional information may include:

- Information or agreement in respect of proposed substation location(s)
- Information or agreement in respect of proposed cable routes
- Information or agreement in respect of proposed metering points or location of items of unmetered equipment
- Further details regarding the capacity required to be provided at each metering point or regarding the nature of the electrical equipment to be used by the customer
- Further details regarding the intended usage of the electrical equipment
- Further details regarding land ownership and/or land rights that is likely to be known by the customer
- Further details regarding land contamination
- Confirmation of the design option to be reflected in the Connection Offer where WPD has more than one practicable option under consideration
- Any other information that WPD may reasonably request
- Further clarification of information provided in the industry standard ENA generation application form including any information that is missing from parts 4-6 of the form

## Minimum and Additional information for Point of Connection Offers (LC15)

Non-contestable connection offer requests, both for ICP adoptable connection works and Independent Distribution Network Operator connections, should provide the following information:

- Applicant name, correspondence address and contact details
- Site address
- Indicative date when the customer requires the connection(s) to be made
- Total maximum capacity (kVA) requirement at each point of supply and interim capacity requirements for phased developments
- The Service required, e.g. voltage and connection
- Site plan at an appropriate scale to indicate the site boundary and anticipated point(s) of supply to the development

Additional information for Point of Connection Offers

- Technical details of any electricity generator that is required to operate in parallel with the supply (for SSEG generation complying with Engineering Recommendation G98, the type verification certificate; for other generation the industry standard generation application form).
- Summary technical details of any customer owned equipment that is likely to cause disturbance to the electricity supply (e.g. large motors).
- Letter of Authority if required
- The annual capacity ramp up for each required Point of Supply

## Letters of Authority

For generation applications, a Letter of Authority (LOA) will be required at application stage. The LOA should clearly state the name of the agent and preferably the premises address to which it refers. The owner/occupier may, however, issue a ‘blanket’ authority for unspecified multiple premises under its ownership.

The LOA will be deemed to be valid up to one year from the date of signature by the owner/occupier. A new LOA will be requested where we do not hold an LOA or a previously provided LOA has expired.

## Disturbing Loads and Equipment

Potentially disturbing equipment is electrical equipment of a type that may cause electrical disturbances (or interference) that could be unacceptable to other customers. We need to be notified if you are planning to connect any motors or other potentially disturbing equipment.

### Electricity Safety, Quality and Continuity Regulations 2002

Regulation 26 of the Electricity Safety, Quality and Continuity Regulations 2002 specifies the procedure to use if we consider that an installation would cause, disturbance and also the procedure to challenge our refusal to give or continue a supply. If a load would cause disturbance, we can issue a notice in writing requiring remedial works within a reasonable period. If this remedial works is not carried out we may refuse to connect the installation.

### Examples of Potentially Disturbing Equipment

| | | | |
|---|---|---|---|
| Motors | Welders | Electric vehicle charge points | Heat Pumps |
| Sprinkler Systems | Induction Furnaces | Arc Furnaces | Kilns |
| Train Traction | Generators | Switched Capacitors | Motor Drives (VSDs) |
| Electric boilers and other equipment compliant with British Standard BS EN 61000-3-11, BS EN 61000-3-12 | | Industrial/Commercial AC regulators (agricultural lighting control or industral heating control) | Multiple personal computer installations (e.g. large offices, data centres etc) |

### What information should be provided?

Please provide as much information about the equipment you are proposing to install as possible and enclose the manufacturer's specification. We will assess the information you provide but if we are unable to carry out a detailed assessment of the potential impact on the network as a result, we may request further information from you. This will usually be via a Standard Data Collection Form and your electrical contractor or equipment manufacturer may be able to assist you in completing the form. Copies of the Data Collection forms are available to download at www.energynetworks.org

### Electric Vehicles and Heat Pumps

Low carbon technologies are expected to play an important role in achieving the UK's targets for improving air quality and reducing carbon emissions.

The Energy Networks Association (ENA) has a database of Heat Pump technologies available. They have created an industry agreed application form which can be used for both electric vehicle charging points and heat pumps. Completion of this form ensures that we have all relevant details to avoid any delays in carrying out an accurate assessment for your connection requirements. A copy of the form is available on our website at www.westernpower.co.uk/connections-landing/connecting-a-new-ev-charging-point-or-a-heat-pump and is available via the ENA website.

## Application Forms

To help ensure you meet the minimum information requirements, it is recommended that you utilise our application forms to make your request for a Connection Offer. These are available on our website:

### Application for a New / Augmented Connection


This application form can be utilised for demand/load connections to request:

- Budget estimate
- Feasibility Study
- New connection(s) to WPD's system
- Augment an existing connection, for example increasing the import/load capacity
- Draw Down Connection Offer
  (see www.westernpower.co.uk/allocation-and-reservation-of-capacity)

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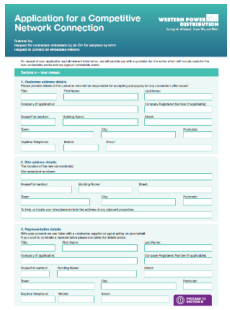
### Application for Competitive Network Connection




This application form can be utilised to request:

- A point of connection offer for non-contestable works only with the constructed assets to be adopted by WPD following energisation
- A connection to an embedded network to be adopted by an Independent Distribution Network Operator

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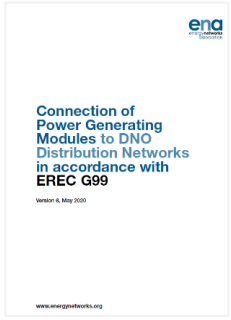
### G99 Standard Application Form




This Energy Networks Association (ENA) application form can be utilised for generation connections to request:

- Budget Estimate
- Connection of generating plant to WPD's system
- Augment an existing generation connection, for example increasing the export capacity
- Connection of electricity storage solutions

### Study & Offer

Please complete this supplementary form and include it with the G99 Standard Application Form for each requested capacity.

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### Changing your connection

This webpage can be used to initiate requests to:

- Modify an existing connection, including changing technology installations where there is no increase to the required capacity or changes to fault level contribution
- Move electricity supplies and equipment, including diversionary works
- Decrease the agreed import or export capacity for an existing connection

## Additional Information Relating to the Application Process

This section sets out additional information which may be, or become, relevant when you submit your application for a Connection Offer.

### Connection Offer Validity

Connection Offers are valid for 90 days after which they automatically expire.

In some instances, we may enable a single extension to the validity of the acceptance for a further 90 day period, provided there is no detrimental impact on other customers in the connections queue. To request an extension you must submit a request, in writing, no more than 10 days prior to the original connection offer validity expiry date. Upon receipt, we will confirm your revised expiry date or issue an explanation of the reasons for refusal of the request.

### Interactivity

There are occasions where we receive two or more applications for connection which make use of the same part of the network. If there will not be sufficient capacity available to support both connections, requiring one of the schemes to trigger additional works, we will follow a strict process to ensure fairness. This is referred to as the interactivity process.

At the time of making a Connection Offer, we will notify all affected parties in writing, including those who have already received a Connection Offer which remains within validity, that their request has become interactive. Our notice will include confirmation that the Offer is now either Unconditional or Conditional. If the Offer is Conditional, it will include the respective position in the interactive queue, determined by application dates, the process for accepting the interactive Offer and confirmation of the validity period.

The successful applicant will be the first valid acceptance received within the applicable validity period. Should we receive more than one valid acceptance on any given day, the successful applicants will be determined in accordance with their queue position. Unsuccessful applicants may reapply, within 10 days, to request a Connection Offer inclusive of the works required to provide the requested connection(s).

### Allowable changes to applications and accepted offers for connection

Due to the nature of connections schemes, a change may be required to the initial requirements during the process from application to energisation. Often a customer requests what could be a substantial change to their scheme. Where this is the case, we need to ensure that we treat all customers fairly and consistently, including other applicants whose schemes could be affected by the requested changes.

We have published a guidance document which sets out the types of changes requested and whether or not they are allowable both prior to acceptance and post acceptance. This guidance incorporates the high level principles of The Electricity Networks Association (ENA) guidance document entitled “Fair and Effective Management of DNO Connection Queues: Treatment of Changes to Connection Requests Good Practice Guide”.

You may view our guidance document at:

www.westernpower.co.uk/downloads-view-reciteme/57532

### Electricity Connection Offer Expenses Regulation

When you make an application for connection, we may charge you for the time spent preparing the offer for connection in accordance with the Electricity (Connection Offer Expenses) Regulations 2018. We will require payment even if you do not accept the offer. The charge covers costs we reasonably incur when assessing the impacts of the proposed connection on the distribution/transmission system.

More information is available on our website at:

www.westernpower.co.uk/connections-landing/connections-regulations-and-policy/electricity-connection-offer-expenses-regulations

# POST-ACCEPTANCE

**This section sets out the post-acceptance considerations which may impact the delivery and timescales of the required connection works. This includes payment considerations, the process for obtaining legals and consents, procurement of plant and services and delivery of the final connections.**

## Letter of Acceptance and Payment

### Letter of Acceptance

The letter of acceptance should be signed and returned to WPD within the validity period. Once counter-signed by WPD, a binding contract is formed between WPD and the party named as the 'Customer' within the specific conditions for connection within the Connection Offer. The signatory should therefore be an authorised person for the Customer.

### Payment Terms

For larger connections and development sites, the Connection Charge may be payable in stages. An initial stage payment will be required at the time you accept the Connection/Point of Connection Offer and further payments will be required by instalment to coincide with our anticipated incidence of expenditure.

The initial payment will include works undertaken in preparing the Connection/Point of Connection Offer which have not already been invoiced under the Electricity (Connection Offer Expenses) Regulations. It will also include costs for us to undertake preparatory works, such as route planning/marking, approaching third parties for consents, undertaking studies such as for earthing and, where an Independent Connection Provider is involved, our fees for approving their design.

Further stage payments will be staged so as to reflect our incidence of expenditure at significant milestones, e.g. to coincide with the manufacturer's request for payment by WPD.

The payment schedule specific to a project will normally be set out in the Connection Offer but we aim to issue an invoice for the initial payment within two weeks of acceptance. All invoices must be paid within 28 days of issue in order to avoid potential delay. Please refer to the payment profile in your Connection Offer and Section 6 of the General Terms and Conditions for further details.

The ways in which you can make payment for your new electricity supply are set out below:

#### Cheque

Cheques should be made payable to "Western Power Distribution" and posted to Western Power Distribution, AR Payments Team, PO Box 231, Elliott Road, Plymouth, PL4 0YU

#### Telephone

We accept most major credit & debit cards (charges may apply). Please note, for security reasons, the person making the call must be the registered card holder. Please call 01752 502187 during office hours and quote your PWD reference number.

#### Internet Banking/Bank Transfer (BACS)

You can also make a payment from your bank account using the following details:
Account Name: Western Power Distribution
Bank Account Number: 22410923
Sort Code: 40-14-13

Please quote your WPD reference number. If applicable please send remittances to Western Power Distribution, AR Payments Team, PO Box 231, Elliott Road, Plymouth, PL4 OYU or email: wpdremit@westernpower.co.uk

## Post acceptance contact and agreement of dates

The Primary System Design engineer responsible for your project will contact you within 10 days of receiving the 1st stage payment to agree dates for commencing the works to progress the connection. A meeting will be offered to discuss the connection scheme details and timescales.

A Projects Engineer, responsible for overseeing any physical works to be undertaken, will be allocated before works commence to manage the delivery processes.

## Construction Design & Management (CDM) Regulations 2015

WPD will provide details of the relevant CDM roles and details of who will be responsible for these roles specific to your project. Your Connection Offer will have included a Health and Safety Questionnaire which should have been provided with the Letter of Acceptance. If this was not completed at that time, this will be required before the project can progress. The customer will be provided with any relevant risk assessments and method statements, whist the customer shall provide details relating to the Principal Contractor for co-ordination of the site works.

## Milestones

Your Connection Offer agreement will include milestones for the progression of the project towards energisation and may include:

| Milestone | Description |
|---|---|
| **Confirmation of Appointment** | Provide confirmation from the landowner or occupier that the applicant has been appointed to secure a Connection Offer. The confirmation should include the number of connections, capacity and a plan to identify the land boundary. |
| **Submit planning application** | Provide evidence that the relevant planning processes have been initiated and, where an Environmental Impact Assessment is required, that work on the assessment has been initiated. |
| **Obtain land rights** | Evidence that the customer has the land rights to develop the site, including where they can demonstrate freehold or leasehold interest, an agreement to lease the land or an option to purchase or lease the land |
| **Secured planning consent** | Evidence that the customer has done everything reasonably within its control to secure planning permission |
| **Commence Works** | Evidence that works are commencing in accordance with the programme of works |
| **Project Progression** | Evidence that build out of the site continues in accordance with the programme of works |
| **Complete works** | Evidence completion of the construction of the customer's installation |

Not all milestones listed will appear in each Connection Offer. Some are specific only to generation in accordance with the ENA Best Practice Guide relating to Progression Milestones whilst others are specific only to demand schemes meeting a threshold in accordance with our process for Allocation & Reservation of Capacity.

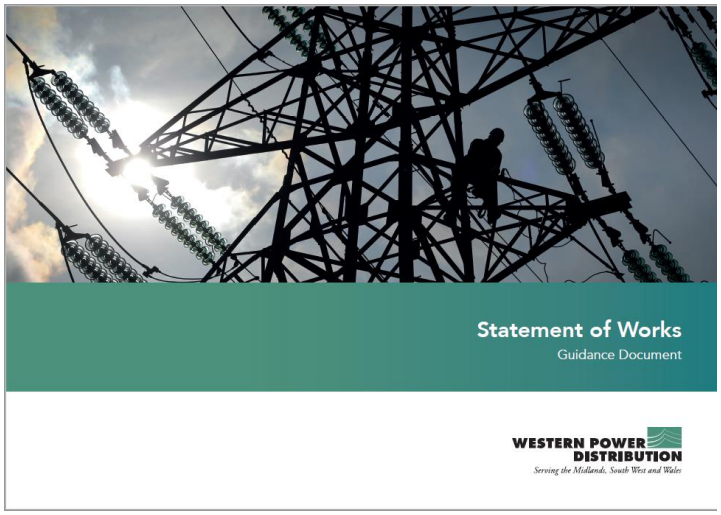
The timescales allocated to a milestone may vary where they take account of known factors. As an example, commence works would normally be within 6 months from acceptance or securing planning consent (whichever is later) but may be extended where works cannot commence until completion of network reinforcement.

## Factors affecting the timeliness of the connection works

### Statement of Works

Following acceptance, and where the Statement of Works process is required, details of the project will be passed to WPD's Statement of Works (SoW) team. They will confirm whether the connection fits within remaining available capacity (Materiality Headroom and Fault Level Headroom) at the relevant Grid Supply Point (GSP), or whether Project Progression or Modification Application is required from National Grid.

In the case of Project Progression or Modification Application, we will inform you of any required payment to initiate this process and issue an associated invoice. Any payment arising as a result of the Statement of Works is outside the scope of the connection charge specified within the Connection Offer.




We have published a guidance document on the Statement of Works process. This guidance sets out the role of National Grid Electricity Transmission and how they may impact upon connections to WPD's Distribution System. It also provides an overview of the Statement of Works process.

A copy of the guidance may be downloaded from our website:
www.westernpower.co.uk/downloads/3916

### Electrical Plant Order

Electrical plant will need to be ordered from the manufacturer for the specific connection. The following table sets out typical timescales for items of plant:

| Plant / Equipment Item | Typical Delivery Lead Time (from time of order) |
|---|---|
| **132kV / 33kV switchgear** | 6 to 9 months |
| **132kV / 33kV cable** | 6 months |
| **132kV transformer** | 12 to 18 months |

It is worth noting that these timescales are indicative only and we will require receipt of payment for the stage which is inclusive of plant prior to placing an order.

### Tendering Process

Our Connection Offer may be subject to the outcome of a tendering process for works. The outcome of the tendering process may impact upon the connection Charge issued, we will notify you with a variation to the Connection Offer should this be the case. The process for issuing and receiving tenders can take, on average, 8 to 12 weeks to complete and may include civil works, cable installation, overhead construction works, transformer procurement etc. The number of tenders issued and the stage at which they are issued will depend on, and be appropriate for, the works for the particular projects.

## Investigative Surveys

Depending on the specific requirements of your project, it may be necessary to undertake ground investigations, earthing studies, geotechnical surveys, bore holes, overhead line surveys, ecological surveys, telecoms surveys etc. There may be a requirement to initiate some or all of these surveys at an early stage following acceptance. As an example, an overhead line survey may impact upon the costs and timescales of the project, particularly where upgrade works are identified. Ecological surveys may need to be carried out over a number of years or seasons.

Your PSD Engineer will be responsible for initiating requests for these surveys and will keep you advised on any delays that could be encountered and any additional works identified following completion of the surveys.

Background Harmonic Survey and Fault Clearance Times

To enable you to carry out the necessary power quality studies, we will provide network background information. Generally we will be required to undertake background measurements at the nearest Bulk Supply Point (BSP). This can take 3 to 4 weeks to complete following a request for this information.

## Highway Notices and Authority Permissions

Where the scheme requires works to be undertaken within the curtilage of a highway, railway, canal or any other authority with land that has specific requirements, it will be necessary to follow specific notification processes and agree a schedule of work with the responsible organisation(s).

Highway notices are required in advance of the start of work in accordance with the New Roads and Streetworks Act (NRSWA). The notice period required will depend on the level of work due to be undertaken but may be 3 months where we are required to close a road or lane of traffic. There may be instances where the highway authority will impose embargoes preventing work due to special events taking place. There may also be instances where the highway may impose additional requirements, such full width reinstatement, in locations which have been newly constructed, reconstructed or resurfaced.

Delays may also occur where we are liaising with other organisations, such as Network Rail, to ensure co-ordination with other works or to obtain out of normal hours access to minimise disruption to their day to day activities. Depending on the complexity of the work, it can take on average between 3 months and 2 years to undertake a crossing. Our Projects Engineer will be responsible for delivery of the connection works and will keep you advised on any delays that could be encountered due to restrictions imposed.

## Legal Permissions, wayleaves and Consents

Before we install our equipment in third party or private land, or are able to adopt connection equipment provided and installed by an Independent Connection Provider, we will usually require some form of permission or consent from landowners, local authorities and other statutory organisations. It is important that our customers and landowners fully understand the information we require and the legal permissions and consents processes.

We have published a number of useful guides on our website, including:

### Summary guide to land rights and consents for new connections

An introduction to the type of consents and permissions we may require in the course of our works

### Information for landowners and customers

A guide for landowners and customers to understand the legal permissions and consents process. This guidance includes:

- Why legal permissions are required
- Details about wayleaves and deeds
- Information about statutory consents and other permissions
- The process for obtaining legal permissions
- The role of Independent Connection Providers (ICPs)

### Guide for landowners relating to ICP works

Guidance and information for landowners on the processes for obtaining of legal permissions and consents relating to assets installed by ICPs

### Independent connection providers (ICPs)

Guidance and information for ICPs on the processes for obtaining of legal permissions and consents relating to assets which they will install for adoption by WPD.

### Independent Distribution Network Operators (IDNOs)

Guidance and information for IDNOs on the processes for obtaining legal permissions and consents relating to assets installed by ICP's which will be adopted by IDNOs but include an interface with WPD's network to which we will require access

### Request to divert overhead tower lines

Guidance and information for landowners and developers on WPD's approach to requests to divert overhead tower lines. The guidance relates to land that is being promoted for development which is over sailed by overhead tower lines and any associated apparatus.

## Timescales for completing the legal and consents processes

The timescales for completing the processes can vary depending on the type of consents required and how quickly we receive responses from third parties, such as landowners and their appointed solicitors. We do, however, focus on minimising delays in the legal processes for our new connection customers. This is achieved through a number of approaches including internal standards of performance and a Collaborative Partnership Protocol which outlines a series of practical steps that our customers and their lawyers can take if they wish to avoid delays in securing connections to our network.

More information on our legal processes and the Collaborative Partnership Protocol is available on our website, along with links to the above mentioned guides.

www.westernpower.co.uk/legal-permissions-and-consents

## Information to be provided by the customer

To ensure the delivery of the project progresses smoothly, there is information which we will require from the customer. Information will be requested where it is deemed necessary and we ask that it is provided in a timely manner to ensure that the proposed delivery timescales of the connection are not unduly impacted.

### Customer's Plant Details and Fault Infeed

The customer is required to provide WPD with full technical details relating to the customer's installation, including plant and equipment specifications and fault level infeed data.

### Substation Civil and Earthing Designs

The customer is required to submit their civil and earthing designs to ensure they meet relevant WPD design and technical specifications. WPD will require up to 20 working days to review and provide a reasoned response.

### Power Quality Reports

The customer is required to provide the necessary power quality assessment reports for review, including:

- G5/5 (sets down the limits for harmonics in the United Kingdom supply system)
- P28 (planning limits for voltage fluctuations caused by industrial, commercial and domestic equipment)
- P29 (planning limits for voltage unbalance)
- Stability Studies

### Protection Settings

We will likely require technical details of the customer's installation, including single line diagrams (SLD) and plant and equipment technical data to enable us to undertake assessments and calculations to determine the setting to be applied to the protection system. The assessment can be requested through the WPD Projects Engineer and will take approximately 9-10 weeks to complete.

### Contestable Design Submission (Competitive Connection Installations Only)

We will require up to 20 working days to review and provide a reasoned response to any submitted design for contestable works.

Any design submission must be reviewed and agreed by WPD prior to commencement of the contestable construction works.

A partial design submission approach is acceptable where this is broken down into 3 components:

- Plant proforma
- Civil (and earthing)
- Electrical

## Agreements

We may need to enter into formal agreements to establish a formal relationship between WPD and the customer for the requested connection(s).

### Connection Agreement

As a result of entering into a supply contract with your chosen supplier, you will automatically enter into the National Terms of Connection. In many instances, we will also require a site specific connection agreement, setting out the necessary terms and conditions upon which the customer is connected to, and may remain connected to, WPD's Distribution System.

The connection agreement will include information such as:

- the address of the connection
- the owner of the connection
- the maximum import and/or maximum export capacity permitted

WESTERN POWER DISTRIBUTION

Connection Agreement

THIS AGREEMENT is made the day of 2020

Between

(1) Western Power Distribution (East Midlands) plc Registered in England and Wales No. 2366923 whose REGISTERED OFFICE is at Avonbank Feeder Road Bristol BS2 0TB

and

(2) Customer (company number N/A) whose REGISTERED OFFICE is at Building Street Town

Concerning the Customer's premises known as BUILDING STREET TOWN

| Address for Notices | Correspondance | Western Power Distribution (East Midlands) plc |
|---|---|---|
| | Building<br>Street<br>Town | Avonbank<br>Feeder Road<br>Bristol<br>BS2 0TB |

This agreement and the schedules to it shall be referred to as the "Agreement" and the "Schedules" respectively. The Agreement, the Schedules, and the National Terms of Connection shall together be referred to as the "Connection Agreement". The Company and the Customer shall together be referred to as the "Parties", and each a "Party".

The National Terms of Connection are available to view on the website: www.connectionterms.org.uk. Alternatively the Customer may request a copy from the Company by written request to the address for notices given above. The Customer confirms that they have read, fully understand and accept the terms of the National Terms of Connection.

The connection agreement may also include diagrams showing the ownership boundary between the customer's equipment and WPD's Distribution System.

A draft Connection Agreement will be provided within 20 working days following acceptance. A completed and signed Connection Agreement specific to the connection requirements will need to be in place prior to energisation. It is important that this document is returned to WPD as soon as reasonably practicable to prevent any delay in making the connection.

### Bilateral Connection Agreement (BCA)

Where the new connections and network are to be adopted by an Independent Network Operator (IDNO) the connection to our distribution system will be covered under a Bilateral Connection Agreement (BCA). This will set out the terms by which the IDNO may be connected to WPD's Distribution System and will include matters such as the connection characteristics and responsibilities.

### Site Specific Agreement

A site specific agreement will be required where WPD will adopt constructed network assets from an Independent Connections Provider (ICP) in accordance with the Framework Network Access and Adoption Agreement. The framework sets out the overarching agreement for the adoption of assets and any live jointing works they may undertake across all four WPD licensed areas. The site specific agreement will be put into place for an individual scheme to set out the site specific connection requirements, including specification of the assets to be installed and adopted.

## Completing the Physical Works

### Installation of Electrical Plant & Equipment

There will be a requirement for WPD to co-ordinate its works with the site Principal Contractor to establish the electrical apparatus within the building. The installation of any electrical plant will be co-ordinated with the Principal Contractor particularly where mechanical lifting equipment will be used to install the electrical plant.

### Excavation Work and Cable Installation

There can be several phases to the excavation and cable installation works. On-site works will be co-ordinated with the Principal Contractor. The Connection Offer will specify any works to be completed onsite by the customer, including the specifications such as minimum cable depths and reinstatement requirements.

We will undertake excavation within the public highway in accordance with the New Roads & Streetworks Act 1991 (NRSWA) and in land which is owned by a third party with their consent, with the exception of installations to be undertaken by an ICP who will be responsible for securing their own NRSWA and third party consents to complete the excavation and cable installation works.

In some circumstances there can be delays to the works, particularly where it involves disruption to traffic sensitive routes or other embargoes enforced by the authority. More information on factors affecting the timeliness of connection works is included within this document.

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### Overhead line works

Installation of overhead line works will commence following completion of necessary line surveys and obtaining of relevant consents including:

- Planning consent in accordance with S37 of the Electricity Act
- Strategic overhead line planning with the Planning Inspectorate for overhead lines at 132kV and extending for more than 2km
- Third party consents from landowners

## Process Flow Chart

The below chart summarises the steps taken from application through to completion of works.

| Western Power Distribution: | Customer: |
| --- | --- |
| 1 Assess the information you have provided, contact you to provide details of the local team responsible for the connection and, if required, request any additional information. | Provide additional information where requested. |
| 2 Send you a Connection Offer which is valid for 90 days. | To accept the Connection Offer, sign and return the Letter of Acceptance together with any payment due. |
| 3 On receipt of acceptance and payment, contact you to agree the dates for the works or discuss any pre-requisite matters, such as obtaining legal consents. | Prepare your site for our arrival in accordance with the requirements set out in your Connection Offer. This may include meter box installation and onsite excavation. |
| 4 If required, enter into a legal process to obtain permissions for access to install and maintain our equipment. | To ensure the legal process runs smoothly, provide any information possible about the land on which the site is based. More information and a guidance document is available on our website: www.westernpower.co.uk/connections/new-connections/legal-permissions-andconsents.aspx |
| 5 Send you a Meter Point Administration Number (MPAN). | Register your MPAN with a supplier and enter into a supply contract. |
| 6 Complete all works to make the connection as stated in the Connection Offer. | Appoint a suitably qualified electrician to carry out any internal wiring and connect this to your supply. Arrange with your supplier or meter operator a date to install your new meter. Please note, the meter can only be installed after we have completed the connection works. |

## Meter Point Administration Number (MPAN) and Meter Operator Installation

We are not an energy supplier and therefore you cannot set up your billing accounts with us. You will also need to appoint a meter operator for the installation of metering equipment in preparation for energisation.

We will provide you with a Meter Point Administration Number (MPAN) for each connection. As it is unique to each premises it is important that we register these against a postal address, therefore please provide details of the final post address once known.

We will require 3-4 weeks lead time to issue the MPAN.

## Completion Certificate and Request for G99 Testing

Where the connection is for generation, you will need to provide us with a completion certificate. We will require 20 to 25 days lead time to attend site for energisation and G99 witness testing. Each G99 witness test visit is chargeable and is not included in the Connection Charge.

More information on the G99 connection procedure, including the fee for witness testing, is set out on our website: www.westernpower.co.uk/g99-connection-procedures

## Novation of a Connection Offer

A signed Letter of Acceptance enters the customer, as specified within the offer, in to a binding contract with WPD. We recognise that there may be occasions where the contract needs to be transferred to a third party. To do this, we will require a Novation Agreement which enables all parties to agree to the transfer of the contract.

Upon completion, the new customer is treated as though they have always been the customer and the original customer no longer has any rights or responsibilities under the contract.

Should you wish to novate your Connection Offer, please speak to your WPD contact who can issue the relevant novation document.

# Further Information

Should you require further information relating to this document or the process of getting connected to WPD's Distribution System, please email:

For Midlands: wpdconnectionpolmids@westernpower.co.uk
For South West & Wales: wpdconnectionspolicy@westernpower.co.uk

Western Power Distribution (East Midlands) plc, No2366923
Western Power Distribution (West Midlands) plc, No3600574
Western Power Distribution (South West) plc, No2366894

Western Power Distribution (South Wales) plc, No2366985
Registered in England and Wales
Registered Office: Avonbank, Feeder Road, Bristol BS2 0TB
v.1 December 2020

**westernpower.co.uk**