## Western Power Distribution (WPD)

# Variations to Connection Charges Explanation Document

Please note that the list below is not exhaustive and does not cover every scenario in which a price variation under a customer's connection offer may occur. It is intended to provide an outline of some of the more common circumstances in which a cost adjustment may be made, and does not act as a substitute for, replace or in any way affect the terms of the connection offer in place between WPD and the customer. The customer must therefore ensure that they read the connection offer in full, including the General Conditions for Connection Works, in order to satisfy themselves in this regard.

#### Introduction

WPD publish a 'Statement of Methodology and Charges for Connection to Western Power Distribution Plc's Electricity Distribution System' which provides the basis of charges for the provision of a connection and describes the methodology under which customers will be charged for a connection to our distribution system. It also provides information on Competition in Connections and the options available to have the connections work, referred to as Contestable Work, carried out by an Independent Connections Provider (ICP). The document is available free in electronic format from our web site <a href="https://www.westernpower.co.uk">www.westernpower.co.uk</a>.

Following your application to WPD for a connection to our distribution system we will make a Connection Offer in accordance with the above Statement. In addition to the terms for making the connection we will specify the proposed Point of Connection (POC) to our distribution system, the location of the Entry/Exit Point on the premises to be connected and details of the work to be carried out by us. In order to make this offer we would undertake a range of activities including system studies to assess the impact of your connection on the distribution system, and identifying any new or reinforced assets that will need to be established. This would include switchgear, overhead lines, underground cables, and any protection and communications equipment, as well as any necessary third party consents.

Although we aim to provide a comprehensive design and cost for the connection works, depending on the size and complexity involved, there are occasions where, under the terms of the Connection Offer, we may need to vary the Connection Charge. This document is provided to give an indication of the more common circumstances where this may occur, and a typical range of potential cost variation. The list however is not exhaustive and does not cover every scenario in which a price variation under the Connection Offer may occur. It does not act as a substitute for, replace, or in any way affect the terms of the Connection Offer between WPD and the customer.

For any specific questions relating to a Connection Offer you have received, including the associated connection works, or Connection Charges, please refer to your offer letter which will provide the contact details for the designer of your connection who will be able to help you.

If you have any comments on this document, we would welcome your feedback which may be emailed to WPDConnectionsPolicy@westernpower.co.uk.

Area of Works	Offer Detail	Explanation/Information	Potential Cost Implication
Fault Level at the Connection Point	This Connection Offer is subject to any further studies on the Distribution System that WPD may require when full details of the Proposed Connection(s) and the Customer Installation have been confirmed (including, but not limited to, transient, steady state and dynamic stability studies). The costs of these studies are not included in the Connection Charge and shall be borne by the Customer.	Following receipt of full and final details for the Customer's installation, such as final generator details or transformer impedances, there may be a need to carry out further detailed studies to determine if the customer's installation detrimentally impacts upon the WPD or any other 3rd party network. Any works identified as a result of these studies could result in an increase in costs of the Connection Charge.	Once full and final details of the Customer's installation are provided, detailed studies could result in the need to replace switchgear for units of a higher fault level rating. Cost will vary, depending on the number of units that require replacing in addition to the voltage level of the switchgear.  Typical Switchgear Unit costs:  11kV – 33kV: £30,000 - £60,000 66kV – 132kV: £70,000 - £120,000 (outdoor)  Please note, these costs are for the switchgear unit only. Additional costs will be required for any ancillary items and associated civil works.  The requirement for an indoor or outdoor arrangement will also affect costs.
System Protection	Costs will be subject to review following the design of a full operational inter-trip scheme following completion of this Agreement.	At time of offer any allowance for intertripping would be for a basic scheme only. Costs can increase following the completion of a full detailed intertripping survey.	Subject to the proposed connection arrangement, achieved either by microwave or fibre optic installation.  A Line of Sight (LoS) survey will be required to confirm a microwave link at a cost of approx. £2,000.  A structural survey to the receiving tower will also be required to confirm that the required attachments will not compromise the integrity of the tower, at a cost of approx. £4,000.

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	The Customer shall be responsible for the costs of any communication channels required for telecontrol, protection and operational intertripping.	Following detailed telecommunication surveys (e.g. microwave line of sight survey) it is not uncommon for costs of providing suitable communication channels to change. Any increase in cost following these surveys will be notified to the customer and included as part of a variation to the Connection Offer.	Telecommunication costs within a Connection Offer will be based on typical costs e.g. 15m lattice tower at site for a microwave connection or by a dedicated fibre optic installation – options are dependent on circuit construction and proposed Point of Connection (POC).  A LoS survey could however result in the need for a larger tower e.g. 20-30m or additional towers.  15m lattice tower: £75,000 - £90,000 Lattice tower >15m (20m, 25m or 30m): Additional £15,000 per 5m section. Tower foundations may require review particularly if tower height reaches 25m - additional civil costs will be determined at this point.  3rd Party Rental Fee If the microwave link cannot be sent directly to a
			tower located in a WPD compound and instead directed via a 3 <sup>rd</sup> party tower then an annual rental fee for use of the receiving tower will be required for the duration that the link is in service at a cost of £2,000 - £3,000 per annum + RPI.
Earthing	The earthing system must be designed so that, if reasonably practicable, the substation does not become 'hot'. The costs of any works associated with making the Customer's Installation or WPD's substation 'cold', or for any remedial works by third parties due to either installation being 'hot', shall be borne by the Customer.	The Customer's installation can impact upon WPD's and 3 <sup>rd</sup> parties installations. Any costs to make the substation 'cold' or mitigate against the site being 'hot' is the sole responsibility of the customer.	Any remedial costs can only be determined following assessment of the Earthing Report submitted by the Customer or by the Customer's nominated ICP. This may require changes to the earthing grid at or around the substation, and/or installation/diversion of 3 <sup>rd</sup> party assets, or installation of protective devices.

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Statement of Works	The Connection Charge is exclusive of all fees and/or costs charged or incurred by NGET in relation to any Statement of Works request and/or Modification Application. The Customer shall be responsible for all fees and/or charges associated with the initial Statement of Works request and/or Modification Application and any additional fees and/or costs as required by NGET. WPD will confirm any fees and/or costs payable by the Customer in writing as soon as practicable after WPD receives confirmation of these from NGET and will issue an invoice for the same to the Customer which the Customer shall pay within 28 days of the date of the invoice. All fees and/or costs associated with the initial Statement of Works request are payable by the Customer in advance of WPD submitting the request to NGET.	Any costs associated with Statement of Works or Modification Application to NGET sit outside the Connection Offer costs. The exact costs will depend upon the type of application to NGET that is required. This will be confirmed post Connection Offer acceptance.	Modification Application: £28,000.  A collective fee that would be fully chargeable to the Customer unless additional parties in the same GSP are included in the same Modification Application. In this instance, the fee would be split between the parties.
	The Customer shall be responsible for the cost of any works required on the Distribution System as a result of the Customer's request for a connection or a related Statement of Works request and/or Modification Application and accepts that:	Any costs associated with work required on the distribution network or the transmission network as a result of a Statement of Works or Modification Application. Any costs applied by NGET will be reflected in a variation to the costs post Connection Offer.	Distribution Active Network Management (DANM) costs will be confirmed following the result of the Modification Application request.
	NGET may also require works to be undertaken on the transmission system as a condition of the Customer's connection being permitted. In the event of NGET applying charges for these works, WPD will reflect these charges in its charges to the Customer.	Any costs associated with work required on the distribution network or the transmission network as a result of a Statement of Works or Modification Application. Any costs applied by NGET will be reflected in a variation to the costs post Connection Offer.	Transmission Active Network Management (TANM) costs will be confirmed following the result of the Modification Application request.  An NGET Cancellation Charge will apply to the Customer in the event that the project is cancelled or if the capacity of the project reduces following submission of the project within the Modification

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Connection	The Connection Charge has been calculated on		Application. This fee is confirmed within the Cancellation Charge Statement, provided to the Customer following the Statement of Works process.
Charges and payment	the basis of WPD's current charge-out rates and the information available to WPD at this time. Without prejudice to any other provision of the Agreement, the Customer acknowledges that the Connection Charge may be adjusted to take account of the following (where relevant):		
	(a) Any requirement for WPD's Connection Works to be undertaken out of regular working hours or on an overtime basis;	Connection Offers are normally prepared on the basis that all connection works can be completed within normal working hours. If there is subsequently a requirement to carry out work outside these hours this will result in additional cost to the project. E.G. night time or weekend working on traffic sensitive roadways.	Notification will be provided to the Customer prior to any out of hours working to confirm this additional charge.
	(b) the protection regime (allowance has been made in the Connection Charge for a basic scheme only and no allowance has been made beyond the WPD's metering circuit breaker into the Customer's premises)	At time of offer it is likely that no detailed protection survey has been carried out and therefore costs for basic scheme only allowed. Costs may increase therefore if it is subsequently found that a more complex protection regime is required.	Potential that relay replacements could be required, at a cost of £10,000 to £15,000 per device e.g. directional Over Current +Earth Fault / Unit Protection – including panel re-wiring.
	(c) the unavailability of the proposed cable/overhead line routes (which includes where the Rights in Freehold Land and/or Rights in Leasehold land required in respect of such routes may only be obtained other than on WPD's standard terms and rates);	Situations may arise where it is not possible to gain necessary permissions at standard rates. E.g. wayleaves/consents for an overhead line or underground cable route. Alternative routes will be considered but if the alternative is not practically or economically viable then it may be necessary	A typical fee is estimated to cover the wayleave/easement consents for circuits crossing 3 <sup>rd</sup> party land.  However, if this standard fee is not accepted by the landowner then the Customer can enter into discussions with the landowner to agree a

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		to consider a higher rate of payment. Any additional costs will be reflected in a variation of cost to the Connection Offer and will be the responsibility of the Customer.	wayleave/easement consents fee to cross the land in question.  Should these issues arise, the impact and options would be discussed with the Customer.
	(d) any subsequent information made available to WPD relating to health, safety and the environment that influences the design of the scheme;	This is information that becomes available that could impact upon the design of the connection. E.G. flooding reports.	This cost can only be determined once assessments such as flood or environmental reports have been carried out.
	(e) final competitive tenders and increases in labour, contract, or material costs.  For schemes with long lead in times this may be some time after acceptance of the Connection Offer; and	Connection Offers are often (especially at EHV) subject to the outcome of competitive tenders. Also for longer term projects there can be increase in labour and material costs from date of original Connection Offer to construction activity. These can result in an increase to the original Connection Charge.	Any changes following tender exercises or labour / material costs will be confirmed to the Customer and any subsequent variation(s) made to the Connection Offer.
	The Connection Charge is exclusive of any costs, charges or expenses incurred or arising in connection with any of the following:		
	(a) unless otherwise stated, the diversion of WPD's existing assets (if any) or third party apparatus (including without limitation any gas pipes and telephone lines) that are required for, or undertaken as a consequence of, the Proposed Connection(s);	The proposed connection may result in the diversion of WPD or other 3 <sup>rd</sup> party apparatus. It generally is not possible to identify such potential diversions in detail at Connection Offer stage. E.g. development site may be a HOT site which could mean diversion or mitigation works for telephones lines etc.	Approx. overhead line installation costs:  11kV - 33kV: £70k - £120k/km  66kV - 132kV: £110k - £200k/km  Additional charges will be made to cover consenting fees.  Approx. underground cable installation costs:  11kV - 33kV: £80k - £340k/km  66kV - 132kV: £300k - £1,200k/km
			Additional charges will be made to cover jointing work and consenting fees.

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	(b) specialist disposal of soil (in accordance with The Landfill (England and Wales) Regulations 2007) and import of suitable backfill;	For example subsequent discovery of contaminated soil E.G. asbestos, will require specialist disposal at registered disposal sites. This is likely to increase transport and disposal costs and will therefore increase Connection Charge.	The cost for the removal of contaminated soil / asbestos can only be determined once assessment of the geotechnical report has been carried out to confirm the type of contaminant / asbestos, amount and location for removal – tendering process will be required.
			Example The cost for the removal of Japanese knotweed can only be determined once assessment of the geotechnical report has been carried out. This will confirm the method for mitigation/removal i.e. for up to 2 years growth, a spray can be applied across the knotweed at approx. £200 - £400 per square metre or if growth >2 years, full removal will be required - costs then determined following successful tender.
	<ul><li>(c) excavation and cable laying at abnormal depth, or through rock or other hard substances or in contaminated soil;</li></ul>	For example excavation costs can be impacted upon if the final route means excavation through rock or contaminated soil that was not envisaged at time the Connection offer was made.	This cost can only be determined once assessment of the geotechnical report has been carried out.
	(d) foundations for buildings, towers etc. to be established in ground which is not normal ground bearing type;	An example where connection costs can increase is where the outcome of a geotechnical survey means that foundations need to pilled or specially designed to cater for poor ground conditions.	This cost can only be determined once assessment of the geotechnical report has been carried out.