Offer Letter



Avonbank Feeder Road St Philips Bristol BS2 0TB

Tel: e-mail:

Your Ref:

Our Ref:

Date:

Dear

Alternative Connection Offer for an active constrained electricity connection works by Western Power Distribution (South West) plc ("WPD") at [•]

Thank you for your application requesting an alternative connection offer for a new electricity connection at the Premises. I am pleased to provide WPD's formal offer to you to provide the Proposed Connection(s).

In addition to our standard connection offer dated [•] (the "Standard Connection Offer"), I am pleased to provide this alternative connection offer to carry out the Connection Works to provide an active constrained electricity connection.

All capitalised words and expressions used in this Offer Letter shall, unless otherwise defined in this Alternative Offer Letter or the context otherwise provides, have the same meaning as set out in the Specific Conditions for Connections Works and the General Conditions for Connection Works.



Western Power Distribution (South Wales, West Midlands, East Midlands, South West) plc Registered in England and Wales No. (2366985, 3600574, 2366923, 2366894) Registered Office: Avonbank, Feeder Road, Bristol BS2 0TB, The terms and conditions on which WPD will carry out the Connection Works you require are set out in the Specific Conditions for Connection Works and General Conditions for Connection Works. Please ensure that you read both documents carefully.

WPD's offer for the Proposed Connection(s) (the "**Alternative Connection Offer**") is made pursuant to and in accordance with the provisions of WPD's Distribution Licence and is comprised of the following documents:

- this offer letter (the "Offer Letter");
- the Specific Conditions for Connection Works;
- the General Conditions for Connection Works dated June 2018 (a copy of which can be found at <u>westernpower.co.uk/docs/connections</u>, or provided on request)
- Plan not dated showing WPD's existing Distribution System, Point of Connection location and Premises;
- a Customer Breakdown of Charges;
- the Acceptance Form, to be signed and returned by you;
- a Health and Safety Questionnaire to be completed by you
- a Curtailment Assessment Report
- a Cost of Legal Fees Statement.

The following provides an overview of the Alternative Connection Offer based on WPD's understanding of your requirements.

Summary of the electricity connection requirements

All generation connecting under Alverdiscott GSP or Indian Queens GSP will be required to participate in an Alverdiscott Transmission Active Network Management Scheme (Alverdiscott TANM Scheme) to manage reverse power flow through the Super Grid Transformer (SGT). This is considered as a more cost effective solution in comparison with the high reinforcement cost of installing a further SGT. Should you accept this Connection Offer we will include your project within the TANM scheme.

Summary of the electricity reinforcement required

NONE

Competition in Connections and the Connection Charge

Competition in Connections is the term attributed to the opening up of the market for the design, procurement and installation of new assets necessary to accommodate a new or modified electricity connection. You have the option to appoint an independent Connection Provider (an "ICP") to carry out some of the Connection Works, referred to as the "Contestable Connection Works". Any Connection Works that can only be undertaken by WPD are referred to as "Non-contestable Connection Works".

This Connection Offer contains two options for completing the Connection Works, **Option 1** and **Option 2**. These options are mutually exclusive and you may only accept one of them.

If you want WPD to undertake both the Non-contestable Connection Works and the Contestable Connection Works you should accept **Option 1**. If you want WPD to undertake only the Non-contestable Connection Works you should accept **Option 2**. The Connection Charges for **Option 1** and **Option 2** are set out below:

		Price excluding VAT	Price including VAT
Option 1	WPD undertakes all the Non-contestable and Contestable Connection Works.	[•]	[•]
Option 2	WPD undertakes only the Non-contestable Connection Works and an ICP undertakes the Contestable Works.	[•]	[•]

Please note that the Connection Charge may be adjusted following acceptance of, and as set out in, this Connection Offer, including as set out in clause 6 of the General Conditions for Connection Works.

Unless otherwise specified the terms and conditions set out in this Connection Offer shall apply equally to both options.

Please note that, in accordance with the Electricity (Connection Offer Expenses) Regulations 2018, you will be charged for the time we have spent preparing this Alternative Connection Offer.

The charge covers the costs we have reasonably incurred when assessing the impacts of the proposed connection on the distribution/transmission system, designing the connection (including any reinforcement works) and preparing the Connection Offer.

The charge payable is shown on the enclosed Customer Breakdown of Charges under the heading 'Assessment & Design'. An invoice has been sent to you in accordance with the notification sent previously and you are required to make payment within 28 days of the date of the invoice.

A description of the Non-contestable Connection Works and Contestable Connection Works is provided in clauses 3.2 and 3.3 of the Specific Conditions for Connection Works. The enclosed Customer Breakdown of Charges also provides further detail.

If you accept Option 2, you (or your appointed ICP) will undertake the Contestable Connection Works specified in clause 3.3.3 of the Specific Conditions for Connection Works.

The enclosed guide provides further explanation on Competition in Connections. If you wish to discuss the options available to you please do not hesitate to contact me.

Alternative Connections

If you are willing to temporarily reduce your export capacity at times of peak network usage then WPD have a range of "Alternative Connections" which may allow connection with reduced costs and/or improved connection timescales. Please visit WPD's website for further information regarding the types of connection WPD can offer and the areas in which these are available, www.westernpower.co.uk/Connections/Generation/Alternative-Connections.aspx

Statement of Works

This Alternative Connection Offer is made subject to the outcome of any Statement of Works ("SoW") request that WPD is required to submit to National Grid Electricity Transmission plc ("NGET") in order to ascertain the effect of the Customer's proposed generation on the transmission system. Recent SoW requests made to NGET have highlighted widespread issues on the transmission system that require mitigation. This is due to the cumulative impact of new generation connections on the distribution system. NGET now require generator sites in many areas to modify the operating characteristics of the generator units. This may include, without limitation, a requirement to operate at a specific power factor, to have the capability of operating within a power factor range and/or to constrain the export capability to zero at certain times. In certain areas NGET have indicated that they will have to reinforce parts of the transmission system prior to the connection of any further generation capability. Developers who initiate these works will be required to fund the cost and wait for NGET to complete the reinforcement. The costs may be significant and the associated construction timescales could be lengthy. Please see the Statement of Works clause of the Specific Conditions for Connection Works for more information.

Alverdiscott Transmission Active Network Management Scheme

The Customer's generation will be included in the Alverdiscott Transmission Active Network Management Scheme (the 'Alverdiscott TANM Scheme'). The Alverdiscott TANM Scheme will automatically curtail the output of the Customer's generation in order to control power flow in reverse direction through the Supergrid Transformers (SGTs) at Alverdiscott Grid Supply Point.

Curtailment under normal running conditions

A study has been completed to assess the level of curtailment of the Customer's generation under normal running conditions. Please see the enclosed Curtailment Assessment Report. This study is based on recent historic trends and predicted generation output.

WPD has used historical load data to provide an estimated level of constraint for this connection. For the avoidance of doubt, WPD does not guarantee any level of duration or frequency of curtailment or constraint. Future events that may increase or decrease the level curtailment of the connection during the life of the project include, but not restricted to, the following:

- changes in operational running of the Distribution System or the National Electricity Transmission System (NETS)
- changes in the level of demand or generation, including Small Scale Embedded Generation
- communications outages
- reinforcement of the Distribution System or NETS

Last In, First Out Position (LIFO)

Where more than one connection within a given section of network needs to be curtailed then the connections shall be curtailed in order, with the last comer being curtailed first and the first comer being curtailed last. When the network limitation is lifted then the connections are restored to normal in the opposite order, i.e. the first comer is restored first and the last comer is restored last. This principle is known as Last In First Out (LIFO). Where a group of connections are handled in this way they are known as a LIFO stack.

The LIFO position number indicates the number of generators connected through alternative connections ahead of you in the LIFO stack. Please refer to the enclosed Curtailment Assessment Report for further details about the LIFO stack.

European Connection Code: Requirements for Generators

If you will be connecting new generating equipment to the GB Distribution system, you will most likely be affected by the new requirements of the European Connection Code:

Requirements for Generators (RfG). Subject to certain exemptions, any generating unit commissioned after the 26th April 2019 will be required to comply with new Engineering Recommendations (EREC) G99 which places additional technical requirements over and above existing EREC G59.

IMPORTANT – unless you have agreed an exemption with us, then from midnight 26th April 2019 we will only allow generation to be connected that is EREC G99 compliant. If you are planning to connect just prior to 27th April 2019 you may wish to consider whether it is beneficial to install equipment in accordance with EREC G99 as a precaution in case your project is delayed and your project misses the deadline.

You may be exempted from compliance if you have concluded a signed final and binding contract with the manufacturer by the date of national implementation (17th May 2018) for the main plant items and submitted evidence of this to WPD by 17th November 2018.

For further information please refer to our website page: <u>Implementation of the EU</u> <u>Network Codes</u> or visit the Distribution Code website <u>www.dcode.org.uk</u>

General Conditions for Connection Works

As well as the documents enclosed with this Offer Letter, the Connection Offer also incorporates and is subject to version 3 June 2018 of our General Conditions for Connection Works. The General Conditions for Connection Works are a part of the Agreement that is formed between us in accordance with the 'Acceptance' paragraph below. You can view them here <u>westernpower.co.uk/connection-docs</u>. Alternatively, we can send you a copy on request.

Please take the time to read them as they include important provisions setting out, for example, the circumstances in which you may cancel or WPD may terminate the Connection Offer. They also set out details of WPD's limits of its liability to you, as well as definitions of terms used in this document that you may find helpful. We are happy to discuss any element of these conditions with you.

Data Protection

WPD take data protection very seriously - details of:

- how WPD collects, stores and uses information that identifies individuals ("Personal Information") in connection with its business activities;
- WPD's legal basis is for processing that Personal Information; and
- your rights in relation to your Personal Information,

can be found on WPD's privacy policy, which can be viewed here <u>https://www.westernpower.co.uk/Privacy-Policy.aspx</u>. Alternatively, we can send you a copy on request.

Acceptance

If you would like to accept this Alternative Connection Offer please return the following completed documents to WPD at the above address:

- the Acceptance Form;
- the Health and Safety Questionnaire.

Unless otherwise agreed with us in writing this Connection Offer will automatically expire if WPD do not receive these documents by [•]

Unless otherwise agreed with us in writing this Alternative Connection Offer will automatically expire on the earlier of:

- (a) [\bullet], if WPD has not received these document by this date; or
- (b) the acceptance of the Standard Connection Offer.

Once WPD have received the documents set out above, subject to any provisos set out in the Alternative Connection Offer, WPD will:

- date the Acceptance Form and send you a copy for your records; and
- invoice you for any payments which are due.

The Agreement between you and WPD shall be formed when we date the Acceptance Form. WPD reserve the right to withdraw the Alternative Connection Offer on written notice at any time prior to formation of the Agreement. Unless otherwise agreed with WPD in writing, the Agreement shall be on the terms and conditions set out in this Alternative Connection Offer, and any purported acceptance of the Alternative Connection Offer containing any variation to these terms shall be invalid.

If the Agreement is terminated by you or by WPD as set out in clause 13.3 of the General Conditions for Connection Works you will be liable for any reasonable costs incurred by WPD as a result as set out in that clause. You may also be liable for an NGET cancellation charge as set out in the clause headed 'Statement of Works' in the Specific Conditions for Connection Works.

Interactivity

If WPD receive a separate application for a connection which makes use of the same part of our Distribution System as the Proposed Connection(s) and, due to network constraints and the amount of capacity available on the Distribution System, WPD determines that it cannot accommodate the Proposed Connection(s) and the new connection without a material impact on the terms of the connection offers made (including, for example, an increase in the Connection Charge to account for additional reinforcement works) this Alternative Connection Offer may become "Interactive" and acceptance of your Alternative Connection Offer may become conditional upon other customers with **Interactive Connection Offers** not accepting their connection offers first.

If this Alternative Connection Offer becomes interactive WPD will notify you in writing and will provide details of the process for accepting your interactive Alternative connection offer. Further information in relation to interactivity is set out in WPD's Statement of Methodology and Charges for Connection, which is available from WPD's website <u>www.westernpower.co.uk</u>.

Curtailment under normal running conditions

The relevant section of network to which the Proposed Connection would connect has reached the physical limit of power able to be transferred through it and, as such, reinforcement is required in order for further amounts of generation to be connected. This Alternative Connection Offer has been made on the basis that such reinforcement either has not yet been, or will not be, undertaken by the Customer (or contributed to by the Customer), with the intention of providing a lower cost and/or quicker timescale connection in exchange for the right for WPD to temporarily curtail the Customer's Maximum Export Capacity (including to zero) when required when the network is operating under normal running conditions but when the limit of power able to be exported through it has been reached ("Active Network Management" (or "ANM").

Last In, First Out Position (LIFO)

Where more than one connection within a given section of network needs to be curtailed then the connections shall be curtailed in order, with the last comer being curtailed first and the first comer being curtailed last. When the network limitation is lifted then the connections are restored to normal in the opposite order, i.e. the first comer is restored first and the last comer is restored last. This principle is known as Last In First Out (LIFO). Where a group of connections are handled in this way they are known as a LIFO stack.

The LIFO position number indicates the number of generators connected through alternative connections ahead of you in the LIFO queue. Please refer to the enclosed Curtailment Assessment Report for further details about the LIFO stack.

Acceptance of the Standard Connection Offer or the Alternative Connection Offer

The Standard Connection Offer and this Alternative Connection Offer are mutually exclusive and you may only accept one of them. On acceptance of the Standard Connection Offer this Alternative Connection Offer will automatically expire. On acceptance of this Alternative Connection Offer the Standard Connection Offer will automatically expire.

Further Information

If you have any queries or are not satisfied with the terms of this Alternative Connection Offer and, after discussion, you and I are unable to reach agreement, I hope you will take the opportunity of talking to my manager: $[\bullet]$ on $[\bullet]$. If, following discussion with $[\bullet]$, we still cannot reach an agreement please contact the Complaints Department on 0800 055 6833 or email complaints@westernpower.co.uk. Our complaints procedure is available on our website www.westernpower.co.uk. If we are unable to resolve your complaint, you will have the right to refer the matter to the independent energy regulator, Ofgem, for a decision.

If you have any questions or wish to discuss any of the above, please do not hesitate to contact me.

Yours sincerely,

[•] Primary System Design Western Power Distribution (South West) plc Registered in England and Wales No. 2366894 Registered Office: Avonbank, Feeder Road, Bristol BS2 0TB

Important:

All rights in the design, specification, plans or drawings or any other document contained or accompanying this Alternative Connection Offer belong to and remain with WPD and shall not be used or disclosed by the Customer or any other person without WPD's written consent.

All data and information acquired or reviewed by the parties in connection with this Alternative Connection Offer is confidential and shall not be divulged to any third party without the prior written consent of the other party except insofar as may be required by law.

1. Definitions

- 1.1 All capitalised words and expressions used in these Specific Conditions for Connection Works shall, unless otherwise defined in these Specific Conditions for Connection Works or the context otherwise provides, have the same meaning as set out in the Offer Letter and the General Conditions for Connection Works.
- 1.2 Unless the context otherwise requires, the following words shall have the following meanings:

"Customer" means [•]

"**Excess Capacity**" means any capacity within the Maximum Export Capacity (as set out in clause 2.2.1) which exceeds the Installed Capacity.

"Installed Capacity" means the capacity of the Customer's generating equipment once installed.

"**Reservation Period**" means a period of time determined by WPD up to a maximum of 18 months from the date of the Connection Agreement.

2. Basis of the Alternative Connection Offer

2.1 Customer's Installation

WPD understands that, based on current information provided by the Customer, including within the Customer's connection application, the proposed Customer's Installation will comprise the following:-

• [•]

2.2	Supply Specification for the Proposed	Connection(s)	
2.2.1	Subject to any other provision of this Alternative Connection Offer, the characteristics of the Proposed Connection(s) will be:		
	Nominal Voltage at Connection Point	33000 Volts	
	No of Phases	Three Phase	
	Nominal Frequency	50 Hz	
	Maximum Export Capacity	[●]kVA	
	Maximum Import Capacity	[•] kVA	
	Earthing provided by WPD for Customer's Use:	[•]	
	External Earth Loop Impedance	[•]	
	Maximum Prospective Short Circuit Current	[•] kA	
	Acceptable Power Factor for Export Capacity	0.95 with a reactive power tolerance of +/- 53 kVAr	
	Acceptable Power Factor for Import Capacity	0.95 lag to unity with a reactive power tolerance of +/- 25 kVAr	

- 2.2.2 The Acceptable Power Factor for Export Capacity and Import Capacity are both subject to the agreement of NGET and the outcome of any Statement of Works request submitted by WPD in accordance with the Statement of Works clause in these Specific Conditions for Connection Works.
- 2.2.3 In order to allow WPD to contain voltage within acceptable limits at the transmission system/Distribution System interface, the Customer must ensure that the generators have the capability to operate between 0.95 leading and 0.95 lagging power factor, and shall operate at the power factor prescribed by WPD as set out above. In the event that, in WPD's reasonable opinion, WPD needs to contain voltage within acceptable limits it shall instruct the Customer in writing to operate thereafter at a different power factor, which shall be within the 0.95 leading and 0.95 lagging power factor range. The Customer shall at the Customer's own expense comply with the instruction within 28 days of the date of the notification.
- 2.2.4 Where the Proposed Connection(s) is provided in two or more phases the Customer's load shall, as far as is reasonably practical, be balanced.
- 2.2.5 Description of Dynamic Requirements (Active Power) Export Power ramp rate (Positive) [•] MW/sec Power ramp rate (Negative) [•] MW/sec Total power swing [•]MW

Import Power ramp rate (Positive) [•] MW/sec Power ramp rate (Negative) [•] MW/sec Total power swing[•] MW

Total magnitude of the power swing[•] MW [Up/Down]

- 2.2.6 Without prejudice to the other provisions of this clause 2, the Maximum Import Capacity and Maximum Export Capacity means the maximum power in kilovolt amperes (kVA) which has been requested by the Customer and which WPD is prepared to make available. WPD accepts no obligation to provide capacity in excess of this. Further information is provided in WPD's Statement of Methodology and Charges for Connection.
- 2.2.7 The Customer's Installation must be designed and operated to ensure there is no kilovolt amperes reactive (kVAr) power flow into the existing Distribution System at the Point Of Connection. Therefore the site shall operate at a leading power factor when exporting real power, and at a

lagging power factor when importing real power to negate the kVAr effects of the Connection Equipment and the Customer's Installation on the Distribution System beyond the Point of Connection.

- 2.2.8 Upon completion of the design of the Customer's Installation the parties shall agree the mitigation measures required to comply with the reactive power requirement and the Customer shall ensure that these are in place prior to Energisation. If the parties cannot agree the mitigation measures required within 28 days of completion of the design, either party may treat the matter as a dispute in accordance with the dispute resolution process set out in clause 15 of the General Conditions for Connection Works.
- 2.2.9 Prior to Energisation of the Customer's Installation the Customer must enter into a Connection Agreement with WPD specifying the Installed Capacity of the Customer's generating equipment. Subject to the clause below, where the Installed Capacity is less than the Maximum Export Capacity, WPD will be under no obligation to reserve any Excess Capacity for future use by the Customer.
- 2.2.10 If the Customer intends to install further generation plant that will use the Excess Capacity, it shall provide written notice to WPD prior to entering into the Connection Agreement. If WPD receives written notice of such intention, a 'Reservation of Capacity Agreement' shall be entered into, or this Agreement shall be amended, to set out the terms and conditions under which Excess Capacity may be used for further generation plant.

2.3 **Point of Connection**

The Point of Connection to WPD's existing Distribution System will be [•]

2.4 **Connection Point**

The Connection Point will be [•]. It will be the Customer's responsibility to provide and maintain the Customer's Installation beyond the Connection Point in conformity with any regulations and orders for the use of electricity on the Premises.

2.5 [Connection security - Firm connection scheme

This Alternative Connection Offer has been prepared on the understanding that the Customer requires two separate circuits. This will be a firm connection between the Distribution System and the Customer's Installation through one Connection Point. The site will remain on supply if a single circuit is lost, but will lose supply if both circuits are lost.]

[Connection security - Non-firm connection Scheme

WPD has based its design and costs on a single circuit connection. No alternative circuit will be provided. As a result of a single circuit

connection, the Customer acknowledges and accepts the increased risk of disconnection or constraint of generation and/or demand. WPD will not be liable for any DG network unavailability payments as a result of any disconnection of generation in respect of a single circuit connection.]

2.6 Network Constraints

- Whilst WPD will endeavour to minimise any disruption, WPD does not 2.6.1 guarantee that the Customer will be able to import or export electricity through the Connection Point at all times. The Connection Point may be de-energised, or a Customer's generation export reduced (including to zero) as set out in the Connection Agreement, including for the reasons set out in the National Terms of Connection (as amended from time to time and as incorporated into the Connection Agreement), in the event of abnormal network running conditions (including as a result of network outages or communications system failures), and where an instruction has been received by WPD from NGET in accordance with the requirements of BC2.9.1.4 of the Grid Code and using the principles set out in OC6.7.1 of the Grid Code under emergency conditions on the transmission system, which will typically occur when a number of generators' output is high and, at the same time, distribution demand is low, leading to either voltage, thermal or protection issues on the Distribution System or transmission system.
- 2.6.2 Without prejudice to any other right of WPD in respect of network constraints, the following potential network constraints have been identified this is a non-exhaustive list and also does not take into account future developments and changes to the electricity network:
 - [•]
- 2.6.3 Without prejudice to any other right of WPD in respect of network constraints, generators may be constrained off under the active network management scheme when their output exceeds the ability of the Distribution System to absorb the generated energy. This will typically occur when a number of generators' output is high and, at the same time, distribution system demand is low leading to, either voltage, thermal or protection issues on the network.
- 2.6.4 Without prejudice to the generality of clause 2.6.1 above, the Customer's generation will be included in the South West Operational Tripping Scheme (the 'SWOTS') required by NGET. The SWOTS will automatically constrain the Customer's generation output to zero during N-3 outage conditions on the NETS. This N-3 condition arises during a planned outage on a 400kV circuit followed by a coincidental double circuit fault outage on the NETS. NGET calculates the operation of the SWOTS to be less than a 1 in 100 year event. Typically restoration would be expected to be within a 1 hour to 28 hour period, with a worst case of up to 14 days.

- 2.6.5 Prior to the completion of the SWOTS, the Customer will need to constrain the output of the Customer's generation, as indicated by NGET via WPD's Control room, during the following outages:
 - Hinkley Point Melksham 1 or 2 400kV circuit
 - Lovedean Fleet 1 or 2 400kV circuit
 - Fleet Bramley 1 or 2 400kV circuit
- 2.6.6 Without prejudice to the generality of clause 2.6.1 above, the Customer's generation may be constrained off under the Alverdiscott TANM Scheme when reverse power flow through the 400/132kV SGTs at Alverdiscott Grid Supply Point is predicted to exceed ratings. This will typically occur when generation output is high and Distribution System demand is low. Prior to the completion of the Alverdiscott TANM Scheme, the Customer will need to constrain the output of the Customer's generation during outages of SGTs at Alverdiscott.
- 2.6.7 Without prejudice to any other right of WPD in respect of network constraints, the Connection Point may be de-energised or a Customer's generation export reduced under the Active Network Management scheme when output exceeds the ability of the Distribution System to absorb generated energy. This will typically occur when generation output is high and, at the same time, distribution system demand is low leading to, either voltage, thermal or protection issues on the network
- 2.6.8 A study has been completed to assess the level of curtailment of the Proposed Connection under normal running conditions – please see enclosed Curtailment Assessment Report. This study is based on historic load, outage and fault data, and profiles for new and existing generators to provide an estimated level of curtailment for this connection. For the avoidance of doubt, WPD does not guarantee any level of duration or frequency of curtailment and the Customer is strongly encouraged to conduct their own assessment of the potential curtailment and the risk associated with this alternative connection.
- 2.6.9 Curtailment of the network will occur at a varying level based on a realtime assessment on the Distribution System. The level of curtailment will depend on a number of factors, including (but not limited to) those listed below and may increase or decrease over time:
 - (i) changes in operational running of the Distribution System;
 - (ii) changes in the level of demand;
 - (iii) increases in the number of connecting small scale embedded generation;
 - (iv) reinforcement of the Distribution System triggered by demand;
 - (v) reinforcement of the Distribution System triggered by conventional generation connections;

- (vi) any Active Network Management system or associated communications systems outage;
- (vii) any reduction in the normal ability of the Distribution System to absorb generation export and/or supply load.
- 2.6.10 WPD shall use its reasonable endeavours to provide as long a period of notice as is practicable of any requirement to de-energise or reduce export (including to zero), including such notice period as is set out in the National Terms of Connection, however WPD reserves the right to de-energise or reduce export without notice where it reasonably considers it necessary based on the system conditions prevailing on the Distribution System and/or the transmission network, or where the Customer has failed to comply with any instruction from WPD to de-energise or reduce export.
- 2.6.11 Save in respect of liability which cannot be limited by law (including liability for death and personal injury caused by WPD's negligence and for fraud), WPD shall under no circumstances be liable to the Customer for any costs, damages, expenses or losses (including, without limitation, third party losses or loss of profits) suffered or incurred by the Customer or arising out of or in connection with any de-energisation or curtailment of export as set out above other than as set out in the Connection Agreement.

2.7 Fault Level at the Connection Point

- 2.7.1 The proposed connection(s) increases the sub-transient, transient and steady state fault level on the Distribution System. This Alternative Connection Offer is based on a maximum generator plant capacity of [•]kVA. The total contribution from the Customer's Premises, as modelled at the [•] Volts Connection Point, has been calculated to be or, based on the information provided by the Customer, assumed to be:
 - (a) L-L-L-G [•]kA Make (Asymmetrical Peak @ 10ms Make); and
 - (b) L-L-L-G [•]kA Break (RMS Symmetrical @ 100ms Break);
- 2.7.2 WPD's current assessment is that, based on the calculation or assumption above, no remedial works will be necessary as a result of the total contribution to fault level from the Customer's Premises, as under normal system configuration, the increased fault level is either within the rating of WPD switchgear or it can be managed within existing Distribution System and transmission system constraints via network management.
- 2.7.3 WPD reserves the right at any time prior to Energisation, when full details of the Proposed Connection(s) and the Customer Installation have been confirmed, to carry out subsequent assessments of the potential impact of the total contribution to fault level from the Customer's Premises on the Distribution System or any third party apparatus.

- 2.7.4 This Alternative 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.
- 2.7.5 WPD shall be under no obligation to commence performance of the Connection Works (including, without limitation, placing any order for plant or equipment required for the Proposed Connection(s)) until the outcome of any study undertaken in accordance with the above clauses has been determined.

3. Outline of the Connection Works

3.1 This Alternative Connection Offer provides the Customer with two mutually exclusive options for the Proposed Connection(s).

3.2 **OPTION 1**

The first option for the Proposed Connection(s) is for WPD to undertake both the Non-Contestable and the Contestable Connection Works.

Non-contestable Connection Works undertaken by WPD

- 3.2.1 WPD will provide the Proposed Connection(s) by performing the following Non-contestable Connection Works:
 - [•]
 - The installation of the central Alverdiscott TANM Scheme controller

Contestable Connection Works undertaken by WPD

- 3.2.2 WPD will provide the Proposed Connection(s) by performing the following Contestable Connection Works:
 - [•]

Payment of the Connection Charge

- 3.2.3 Payment of the Connection Charge (which may be further adjusted as set out in this Connection Offer, including clause 6 of the General Conditions for Connection Works) is required following acceptance of this Connection Offer.
- 3.2.4 Where we have previously notified you of the case, payment of the Assessment & Design Fees is now due and we will invoice you for the sum shown as the Initial Payment above.

- 3.2.5 Unless otherwise notified, WPD may invoice the Initial Payment (if any) set out above, or (where a single payment is provided for) the entire payment following the Customer's acceptance of this Connection Offer and for any other staged payments (where included) based on the timings set out above, which such invoices must be paid by the Customer within 28 days of the date of that invoice.
- 3.2.6 Without prejudice to any other provision in this Alternative Connection Offer, WPD shall be under no obligation to commence its Connection Works until the Initial Payment set out above has been received.
- 3.2.7 Without prejudice to any other provision of this Alternative Connection Offer, the Connection Charge may be adjusted to take into account a full ANM study, telecoms design/installation and incorporation to the ANM core systems. An annual licensing fee may also be payable by the Customer. Further details are available on request.

3.3 **OPTION 2**

The second option for the Proposed Connection(s) is for WPD to undertake only the Non-Contestable Connection Works.

Non-contestable Connection Works undertaken by WPD

- 3.3.1 WPD will provide the Proposed Connection(s) by performing the following Non-contestable Connection Works:
 - [•]
 - The installation of the central Alverdiscott TANM Scheme controller

Contestable Connection Works undertaken by WPD

3.3.2 WPD will provide the Proposed Connection(s) by performing the following Contestable Connection Works:

[•]

Contestable Connection Works undertaken by the Customer or the Customer's appointed Connection Provider

- 3.3.3 The Customer or the Customer's appointed Connection Provider, shall, at no cost to WPD, undertake the following:
 - design and construct the Contestable Connection Works from the Point of Connection to the Connection Point
 - arrange legal documentation (wayleave, easement, lease or transfer as applicable to the site and WPD policy) to be completed in WPD's name prior to adoption of the equipment by WPD

Payment of the Connection Charge

- 3.3.4 Payment of the Connection Charge (which may be further adjusted as set out in this Connection Offer, including clause 6 of the General Conditions for Connection Works) is required following acceptance of this Connection Offer.Where we have previously notified you of the case, payment of the Assessment & Design Fees is now due and we will invoice you for the sum shown as the Initial Payment (if any) above.
- 3.3.6 Unless otherwise notified, WPD may invoice the Initial Payment (if any) set out above or (where a single payment is provided for) the entire payment following the Customer's acceptance of this Connection Offer and for any other staged payments (where included) based on the timings set out above, which such invoices must be paid by the Customer within 28 days of the date of that invoice.
- 3.3.7 Without prejudice to any other provision in this Alternative Connection Offer, WPD shall be under no obligation to commence the Connection Works until the Initial Payment set out above has been received.
- 3.3.8 Without prejudice to any other provision of this Alternative Connection Offer, the Connection Charge may be adjusted to take into account a full ANM study, telecoms design/installation and incorporation to the ANM core systems. An annual licensing fee may also be payable by the Customer. Further details are available on request.

Design Approval

- 4.1.1 The Customer (or their Connection Provider) is required to provide WPD with all information relating to the design of its or their Contestable Connection Works in order to confirm suitability for Adoption by WPD. WPD require a (single) full and comprehensive design submission for the Customer's / Connection Provider's Contestable Connection Assets (including, without limitation plant, equipment and cables/lines) which are to be Adopted by WPD. Part or incomplete designs will not be accepted as a valid design submission. Where WPD does not consider the submission to be full and comprehensive, WPD will inform the Customer / Connection Provider that the submission has been rejected.
- 4.1.2 The Customer should refer to and comply with the requirements laid out under WPD'S appropriate design guides for switchgear and associated equipment. A copy of the appropriate design guides and other design specification information is available on request or on the WPD Technical Information Website.
- 4.1.3 Where reasonably practicable the design submission shall be in electronic format. On receipt of a full design submission, WPD will either provide confirmation of approval or an explanation for rejection within 10 Business Days of receipt of the design (20 Business Days where EHV works are

required). Where the design submission is rejected WPD may levy additional charges for considering subsequent design submissions.

Inspections

4.1.4 WPD will undertake inspections of the Customer's / Connection Provider's Contestable Connection Works. An estimate of the charge for carrying out such inspections is included in the Connection Charge and is set out in the enclosed Customer Breakdown of Charges. This non-binding estimate has been calculated on the basis of the number of visits WPD anticipates it will make for a connection of this type and size. If the number of inspections required for the Proposed Connection(s) exceeds the estimate provided by WPD in the Customer Breakdown of Charges, WPD may require the Customer to pay for each additional inspection at the rates set out on the WPD Technical Information Site.

Adoption Agreement

- 4.1.5 Where the Customer (or the Customer's appointed Connection Provider) wishes to provide some or all the Contestable Connection Work they must first provide such evidence as WPD may reasonably require that the Customer (or their Connection Provider) has the necessary competence and experience to carry out the work properly and safely by providing evidence of appropriate accreditation under the Lloyds Registration scheme. For further information reference should be made to <u>www.lloydsregister.co.uk</u>.
- 4.1.6 The Customer (or their appointed Connection Provider) must comply with all appropriate legislation, national standards, technical/engineering recommendations, WPD specifications for design, planning, materials, installation and recording of the Contestable Connection Works. Further information is available on request and via the WPD Technical Information Site.
- 4.1.7 The Customer (or the Customer's appointed Connection Provider for the Contestable Connection Works, when applicable) must, prior to commencement of any Connection Works, enter into WPD's Framework Network Access and Adoption Agreement, which sets out the terms and conditions upon which WPD shall Adopt the assets installed by the Customer (or the Customer's appointed Connection Provider). WPD will (upon submission of the Customer's (or their appointed Connection Provider's) design) issue a site specific agreement pursuant to the Framework Network Access and Adoption Agreement to the Customer (or their appointed Connection Provider) in respect of the Proposed Connection(s) for signature.

The following terms and conditions apply to both Options 1 and Options

5. Customer Works

- 5.1 The Customer shall provide and install, at no cost to WPD, the following:-
 - [•]
 - Any works to the Customer's Installation required to accommodate the Alverdiscott TANM Scheme. The Customer shall incorporate their generator plant into the Alverdiscott TANM Scheme, responding to instructions to curtail within the specified timescales.
 - Any works to the Customer's Installation required to accommodate the SWOTS. The Customer shall incorporate their generator plant into the SWOTS, responding to instructions to curtail within the specified timescales.
- 5.2 The Customer shall be responsible for all on-going repairs and maintenance of all accommodation and facilities it has provided.
- 5.3 The Customer shall also work with WPD and their Active Network Management supplier, at no cost to WPD, to incorporate the generation plant into the Active Network Management Scheme, responding to instructions to curtail within the specified timescales

6. **Customer Installation**

- 6.1 The Customer shall be required to confirm full and final details of the Proposed Connection(s) and Customer Installation, including the electrical layout, provisions for protection and electrical parameters of the Customer's Installation, prior to commencement of any Connection Works by WPD.
- 6.2 Without prejudice to any other provision in this Alternative Connection Offer, if final details of the Proposed Connection(s) and Customer Installation (including where confirmed to WPD pursuant to the clause above or otherwise or arising out of the results of any surveys, studies or investigations carried out by the Customer or by WPD) modify or deviate from, or have any other impact on, the physical or electrical characteristics of, the Proposed Connection(s) as confirmed to WPD prior to issuance of this Alternative Connection Offer, including where any additional works are identified as being required:
- 6.2.1 following any studies on the Distribution System (including, but not limited, steady state, transient or voltage stability studies) undertaken pursuant to clause 2; or
- 6.2.2 as a result of an increase in fault level ascertained following any calculations of the potential impact of the total contribution to fault levels in accordance with clause 2; or

- 6.2.3 in respect of any earthing pursuant to the clause headed 'Earthing' below,
- 6.2.4 in respect of any system protection pursuant to the clause headed 'System Protection' below,

WPD may, at its sole option, terminate (with immediate effect by notice) the Agreement or require a variation to the Agreement, including the Connection Charge. Where WPD requires a variation to the Agreement (including, where relevant, the Connection Charge) WPD shall give notice of such required variation to the Customer and the Agreement shall be deemed to be varied accordingly as from the date of deemed service of such notice. For the avoidance of doubt, clause 14 of the General Conditions for Connection Works does not apply to any such variation. If the Customer does not accept (in accordance with its terms) or disputes any variation to this Agreement required by WPD as notified to the Customer, then WPD shall have the option to terminate (with immediate effect by notice) the Agreement.

- 6.3 Once final details of the Proposed Connection(s) and Customer Installation have been confirmed to WPD these shall be deemed to be included in this Agreement and any change to these will constitute a variation to which clause 14 of the General Conditions for Connection Works shall apply.
- 6.4 The Customer shall ensure that any voltage fluctuation or unbalance and harmonics caused by any of its electrical equipment or apparatus on the Development site does not exceed the levels laid down in National Engineering Recommendations P28, P29 and G5/4, as amended, and if appropriate, as modified by WPD.
 - P28 covers 'Planning limits for voltage fluctuations caused by industrial, commercial and domestic equipment in the United Kingdom'
 - P29 covers 'Planning limits for voltage unbalance in the United Kingdom'
 - G5/4 sets down the 'Limits for harmonics in the United Kingdom supply system'
- 6.5 The short-term flicker severity, Pst, as defined in Engineering Recommendation P28, caused by the Customer's Installation shall be limited to 0.5 at the point of common coupling. The Customer's Installation shall be designed such that it is possible, if so required, to introduce sequential switching to ensure a minimum period between each operation that causes voltage change consistent with the above flicker limit; examples include switching of each generator, switching of each transformer, switching of load etc. The magnitude of the voltage change caused by the operation of the Customer's Installation shall be limited to 3% for events no more frequent than once every 10 minutes; for infrequent events, no more frequent than once per three months, this value is increased to 6%; for very infrequent events, no more frequent

than once per year, this value is increased to 10%.

- 6.6 Where appropriate, WPD may define harmonic limitations that take account of the multiple connection applications to the same part of the Distribution System to give equitable treatment for all. This means that the Customer may be allocated a portion of the margin between background level and planning level as set out in G5/4, rather than allowing one connection to take the whole margin.
- 6.7 WPD will not Energise the connection until WPD is satisfied the requirements of G5/4 and P28 are met and any required mitigation put in place. The Customer's choice of equipment may influence the need for mitigation significantly (e.g. harmonic emissions produced by equipment with a similar function can vary substantially with some makes/models being cleaner than others). If requested by the Customer, WPD will undertake Stage 2 power quality assessments under G5/4 and P28 following acceptance by the Customer of this Alternative Connection Offer.
- 6.8 The Customer shall not connect any electrical equipment that may adversely affect the supply of electricity to others and/or cause disturbance outside of acceptable limits to the Distribution System without WPD's previous written consent, which will not be unreasonably delayed or withheld. Such equipment includes motors, welders, furnaces, high power appliances, convertors (e.g. rectifiers, switch mode power supplies, uninterruptible power supplies, battery chargers, high-frequency induction furnaces and variable speed drives), regulators (e.g. AC heating and lighting controls) and other equipment with non-linear voltage/current characteristics (e.g. arc welders and arc furnaces). Consent may be granted for equipment subject to specified operating restrictions required by WPD. WPD may base any consent upon estimating the disturbance caused by the proposed equipment (which cannot be precisely determined in advance) and taking a risk-based approach to likelihood of complaint. Given this it may be that, after installation of any electrical equipment is complete, the disturbance levels are determined to be unacceptable, and/or complaints are received that are attributable to the Customer's equipment. WPD may de-energise the Connection Point or curtail the Customer's import / export (including to zero) where the Customer's Installation and/or any other electrical equipment which the Customer connects adversely affects any other customer connected to the Distribution System and/or causes and the Customer shall be responsible for the costs of any remedial action that may be required as a result of any electrical equipment which the Customer connects (including to the Customer's Installation and/or the Distribution System).

7. **Programme of Connection Works**

7.1 A detailed programme of Connection Works has not yet been finalised. The programme will be discussed and agreed following acceptance of the Connection Offer and depending on the level of Contestable Connection Works to be undertaken by the Customer. By way of a non-binding indication, a scheme of this nature typically has a timescale of approximately [•] from the date of the Acceptance Form to Energisation.

7.2 Notwithstanding that a detailed programme of Connection Works is still to be agreed, this Connection Offer is made on the understanding that the following milestones are met by the respective milestone dates:

7.2.1 either;

- i) a valid planning application for the Customer's Installation and the Connection Works shall have been submitted to the local planning authority within two (2) months from the date of the Acceptance Form; or
- ii) where an Environmental Impact Assessment (EIA) is required
 - a) the EIA assessment work has been initiated within two (2) months from the date of the Acceptance Form; and
 - b) a valid planning application for the Customer's Installation and the Connection Works has been submitted to the local planning authority within fourteen (14) months from the date of the Acceptance Form;

7.2.2 the Customer

i) has a freehold or leasehold interest in the land on which the Customer's Installation is or will be situated; or

ii) has entered into an agreement to lease the land on which the Customer's Installation is or will be situated; or

iii) has in place an option to purchase or to lease the land on which the Customer's Installation is or will be situated

within two (2) months from the date of the Acceptance Form or, subsequently, where the Customer no longer holds a freehold interest or leasehold interest or where an agreement to lease or option to purchase or to lease is no longer in place or exercisable, within two (2) months from the date on which any such interest is no longer held or agreement to lease or option to purchase or lease is no longer in place or exercisable.

- 7.2.3 planning consent for the Customer's Installation and the Connection Works shall have been granted within [•]months from the date of the Acceptance Form;
- 7.2.4 a detailed programme of works is agreed and the Connection Works are commenced within [•] months from the date planning permission has been granted for the Customer's Installation (save for in the event that this milestone is missed as a direct result of an act or omission of WPD, other

than where such act or omission is due to a Condition Precedent not having been, or continuing to be, satisfied or any other reason outside of WPD's reasonable control or any act, default or omission by the Customer, its employees, agents or sub-contractors or the Customer's breach of the Agreement or any statutory duty); and

- 7.2.5 the Connection Works are completed and (where relevant) the Customer's Installation is Energised within [•] months of the date of commencement of the Connection Works (save for in the event that this milestone is missed as a direct result of an act or omission of WPD, other than where such act or omission is due to a Condition Precedent not having been, or continuing to be, satisfied or any other reason outside of WPD's reasonable control or any act, default or omission by the Customer, its employees, agents or sub-contractors or the Customer's breach of the Agreement or any statutory duty).
- Upon request the Customer shall provide evidence to WPD's satisfaction 7.3 confirming the progress against each of the milestones and that it has met, or reasonably believes it will meet, each one by the dates specified. If a milestone has not been achieved by the relevant date, or will not be (in WPD's opinion, at its absolute discretion) achieved by the relevant date, WPD shall be entitled, at its absolute discretion, to terminate, with immediate effect by notice, the Agreement or to require a variation to the Agreement, including the Connection Charge and the milestones and milestone dates. Where some progress is being made toward the relevant milestone, WPD may, at its absolute discretion, take account of this fact when considering whether to terminate or vary the Agreement. For example, if a planning application has been rejected by the local planning authority the Customer will be allowed to lodge an appeal within 6 months of the refusal and the milestones reset for dealing with such appeal.
- 7.4 Where WPD requires a variation to the Agreement (including, where relevant, the Connection Charge) pursuant to the terms of clause 8.3, WPD shall give notice of such required variation to the Customer and the Agreement shall be deemed to be varied accordingly as from the date of deemed service of such notice. For the avoidance of doubt, clause 14 of the General Conditions for Connection Works does not apply to variations made pursuant to this clause 8.4. If the Customer does not accept (in accordance with its terms) or disputes any variation to the Agreement required by WPD as notified to the Customer, then WPD shall have the option to terminate (with immediate effect by notice) the Agreement.
- 7.5 The date of Energisation is dependent upon the Conditions Precedent set out in the General Conditions for Connection Works being, and (where relevant) continuing to be, satisfied (including no Connection Works Dispute arising or any such Connection Works Dispute being fully resolved and/or settled), Distribution System access, operational constraints, manpower availability, delivery times for cables, switchgear, transformers and other equipment and no Event of Force Majeure and/or a Distribution System emergency arising. Whilst WPD will use

commercially reasonable endeavours to meet the Customer's requested Energisation date, WPD is not able to guarantee an Energisation date and shall not be liable to the Customer or any Third Party for any delay in the anticipated date for Energisation or for any related costs, damages, expenses or losses resulting from any delay caused by any of the above mentioned matters.

8. Safety

- 8.1 Any work in the vicinity of WPD equipment must be carried out in a safe manner, including, as a minimum, compliance with the relevant Health and Safety Executive Guidance Notes available from HMSO.
- 8.2 In particular:
 - GS6 Avoidance of danger from overhead electric lines.
 - HS(G)47 Avoiding danger from underground cables.
- 8.3 As part of the planning process and before commencement of any site works the Customer should contact WPD's Map Response Team to ascertain the location of any existing WPD apparatus on or in close proximity to the site and to take the necessary precautions to avoid possible danger from that apparatus. The WPD Map Response Team can be contacted on 0121 623 9780 or by email on WPDMapResponse@westernpower.co.uk

9. System Protection

- 9.1 It is a condition to Energisation, and the Customer's responsibility, to ensure that:
- 9.1.1 the operation of any generators in parallel with WPD's Distribution System conforms to National Engineering Recommendations G59:
 'Recommendations for the Connection of Generating Plant to the Distribution Systems of Licensed Distribution Network Operators' (ERG59) as amended from time to time or, if you are connecting on or after the 27th April 2019, conforms to National Engineering Recommendations G99: 'Requirements for the connection of generation equipment in parallel with public distribution networks on or after 27 April 2019' (ERG99) as amended from time to time. This will include a requirement for interface protection, including loss of mains protection. The detail of this protection is to be agreed with WPD. Please note that vector shift loss of mains protection is not permitted.
- 9.1.2 the proposed generation runs in parallel with WPD's Distribution System through the agreed Connection Point. Any alternative or back-up supplies must be subject to WPD's agreement and suitably interlocked.
- 9.1.3 the multiple generating units start (and under normal operating conditions,

stop) sequentially with sufficient time delay between these operations in order to prevent transient voltage change limits from being exceeded.

- 9.1.4 there shall be no electrical interconnection between the proposed new electricity connection and any existing connection at the Premises.
- 9.2 Prior to any parallel operation of the Customer's proposed new generation with the Distribution System WPD shall, following sufficient notification from the Customer, witness commissioning tests carried out on the Customer's Installation with regard to compliance with ERG59 (as amended) or ERG99 (as amended) as appropriate. WPD may charge the Customer for providing this service. Parallel operation with the Distribution System can only be permitted following written confirmation that the commissioning has been successfully completed by the Customer and, where necessary, witnessed by WPD. A minimum of two weeks' notice will be required for the witnessing to be arranged.
- 9.3 The proposed WPD-owned 33000 Volts metered circuit breaker at the Connection Point substation shall have installed as standard overcurrent and earth fault protection. In addition, depending on Distribution System configuration and operational conditions there may be a requirement for additional protection inter-tripping to be installed. WPD shall provide the Customer with details of the protection settings employed at the metering circuit breakers. It is the Customer's responsibility to ensure that these settings provide adequate protection of the Customer's Installation.
- 9.4 To ensure compliance with the Electricity, Safety, Quality & Continuity Regulations 2002 (as amended) the Customer shall ensure their equipment and installation is adequately protected, both mechanically and electrically.
- 9.5 WPD may consider accepting tripping signals from the Customer. Each request will be considered on its merits. Where WPD agrees to accept tripping signals from the Customer, normally open volt free contacts for this purpose shall be provided by the Customer.
- 9.6 WPD's Connection Point circuit breaker and its associated protection may be included in the Customer's protection scheme for the site. The inclusion of WPD's equipment and protection into the Customer's protection scheme is the responsibility of the Customer. This facility is provided entirely at the Customer's risk and (subject to clause 10.1 of the General Conditions for Connection Works) WPD shall not be liable for any costs, expenses, damages or any other losses arising out of or in connection with the facility. WPD shall provide the Customer with details of the protection settings employed at the Connection Point circuit breaker. It is the Customer's responsibility to ensure that these settings provide adequate protection of the Customer's plant and apparatus.
- 9.7 A trip operation of WPD's metering circuit breaker(s) shall cause the Customer's generator circuit breaker to be tripped. A single set of

normally open 'remote trip' volt free contacts, for incorporation, by the Customer, into the tripping circuit of the Customer's generator circuit breaker, shall be provided from WPD's metering circuit breaker(s).

- 9.8 An emergency trip button (break glass type) shall be provided that will enable the Customer to trip the WPD circuit breaker. The location of the emergency trip button will normally be in the Customer's own substation or control room but this will be decided on a project specific basis in conjunction with the Customer's requirements.
- 9.9 Costs will be subject to review following the design of a full operational inter-trip scheme following completion of this Agreement.
- 9.10 The Customer shall be responsible for the costs of any communication channels required for telecontrol, protection and operational inter-tripping.
- 9.11 Please note, all protection requirements shall be agreed with WPD prior to installation.
- 9.12 Inter-tripping will be required between WPD's Distribution System and the Customer's Installation (inter-trip received from both WPD's and the Customer's Installation). Allowance has been made for a basic scheme. No allowance has been allowed beyond the metering circuit breaker(s) into the Premises. The responsibility and costs of this part of the inter-tripping scheme is to be borne by the Customer. Details of the final inter-trip scheme will need to be agreed with WPD. WPD reserve the right to amend its proposals and the Connection Charge to accommodate the Customer's protection proposal.

10. Earthing

- 10.1 The earthing system must meet the requirements of Engineering Recommendation ENA TS 41-24 (available from the Electricity Networks Association) and any WPD specification as notified.
- 10.2 Upon completion of the Customer's earthing system installation, the Customer shall provide WPD with detailed 'as constructed' drawings for the Customer's earthing system, including details of electrode size and installed depth.
- 10.3 It is the Customer's responsibility to ensure that the Customer's Installation has adequate earth fault protection, and no liability will be accepted by WPD if its earth terminal is used. The Customer shall allow WPD to connect to the Customer's earthing system at no cost.
- 10.4 Special precautions must be taken with telecommunications plant and strict working procedures adopted in the immediate vicinity of substations where the rise of local earth potential could under severe fault conditions exceed 430V. Where this limit is exceeded the site will be classified as 'hot'.

- 10.5 ENA Engineering Recommendation S36, as amended, defines the criteria for classification of substations and power stations as 'Hot Sites'. For safety reasons it may be necessary for mitigation to be applied at and in the vicinity of Hot Sites. If the WPD substation/Customer Installation is assessed to be a Hot Site then the Customer shall consult with Openreach to establish if any mitigation is required. WPD require written confirmation that Openreach agree to Energisation of the Hot Site before WPD will Energise a Hot Site. This confirmation must be relevant to the actual installed substation/Customer Installation. Note that sometimes sites that are predicted to be 'cold' do become Hot Sites if the earth impedance actually achieved is higher than predicted. As this can be identified late in the connection process it is recommended that assessments at the design phase are conservative and that consultation with Openreach occurs at an early stage to avoid prolonged delays to the Premises being Energised, in the case of Openreach mitigation measures.
- 10.6 Before Energisation WPD will examine the Customer's earthing design to ensure that it complies with WPD's specification.
- 10.7 An earthing study must be carried out for the Premises to assess the earthing requirements for the connection. The costs of such a study shall be borne by the Customer. It is the Customer's responsibility to arrange this study and provide a copy of the results to WPD free of charge. On request, WPD will provide the necessary fault level and circuit information in order that these studies can be completed. WPD reserve the right to amend its proposals and the Connection Charge to accommodate the results of the earthing study.
- 10.8 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.
- 10.9 Where the site is declared 'Cold' (as defined in ENA Engineering Recommendation S36), confirmation is required that step and touch potential limits are not exceeded on or off site. Making the site 'Cold' does not necessarily make the installation and adjacent properties safe for step and touch potential.
- 10.10 WPD has a duty of care to ensure it does not knowingly Energise a site that could be unsafe. We therefore require confirmation that the site is safe in this respect before we can approve the design. Touch and step potentials will need to be calculated and verified within the Customer's Installation and any adjacent properties.
- 10.11 Where the site is classified as 'hot' (as defined in ENA Engineering Recommendation S36), the Customer shall ensure that;

- there is adequate segregation between HV and LV earthing systems
- there is adequate segregation between WPD's HV switchgear and the Customer's transformer / LV system / PV panels.
- a WPD approved isolation transformer for the LV supply within the switch room / enclosure is provided by the developer.
- adequate isolation equipment in the signal cables between WPD's control panel and the Customer's Installation.

11. Appointing a Supplier / Meter Operator

- 11.1 Before a supply of electricity can be imported or exported through the new connection the Customer must ensure an electricity supplier is appointed and has registered in accordance with electricity trading arrangements. For a list of licensed suppliers please call WPD on (01208) 892288 or visit the Ofgem website, www.ofgem.gov.uk/Licensing.
- 11.2 Prior to connection, WPD will provide the Customer with an import and export supply number for the new electricity connection. The Customer will need to quote the supply number(s) to the electricity supplier of their choice in order to arrange an electricity supply. If the supplier fails to register the supply number WPD will be unable to Energise the connection.
- 11.3 For connections with a maximum demand above 100kW and a generation capability above 30kW, half hourly metering is mandatory. The Customer's appointed supplier may arrange for a meter operator to install half hourly metering or the Customer to appoint their meter operator directly.
- 11.4 A list of meter operators can be obtained from the Association of Meter Operators, <u>www.meteroperators.org.uk</u>. It will be necessary for the Customer to ensure in conjunction with the meter operator, that suitable metering exists/is installed for the required level of import/export capacity.
- 11.5 WPD provides metering services to customers in the UK and can provide half hourly metering. Please inform WPD if you would like WPD to be your Meter Operator.

12. Connection Agreement

- 12.1 Prior to Energisation of the Customer's Installation the Customer or, where relevant, an end user of the Proposed Connection, must enter into a written Connection Agreement with WPD.
- 12.2 The Connection Agreement entered into with WPD prior to Energisation will govern the terms and conditions under which the Customer's Installation may be connected (and remain connected) to WPD's Distribution System. The Connection Agreement is based on an industry standard and the terms and conditions contained therein are largely non-

negotiable. Any request to amend the Connection Agreement will require a referral for legal advice and the Customer shall be responsible for costs incurred by WPD regardless of whether or not these changes or amendments are agreed and incorporated in the Connection Agreement.

13. Statement of Works

- WPD will be required to request a Statement of Works from NGET in 13.1 accordance with section 6.5.5 of the Connection and Use of System Code (the "CUSC") in order to ascertain the effect of the proposed generation on the transmission system. On receipt of this request, NGET will consider, in accordance with the CUSC, whether or not a formal modification application is required. Following NGET's consideration, should the Customer seek to make a significant change to its Proposed Connection (as described in this Agreement), WPD may be required to request a further Statement of Works from NGET. For the purposes of this clause, an Electricity Storage Facility shall be treated as generation for the purposes of a Statement of Works. NGET will assess the impact of both the export and import requirements of an Electricity Storage Facility on the transmission system. The requirements of this clause apply to both the export and import requirements of the relevant Electricity Storage Facility and any fees, charges, secured amounts or any other costs or obligations shall be applicable in respect of the same.
- 13.2 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.
- 13.3 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:
- 13.3.1 the outcome of a Statement of Works request or modification application (including, without limitation, any requirement for NGET to modify the transmission system) could severely delay the anticipated date for connection and Energisation of the Premises; and
- 13.3.2 the order of generation schemes submitted under a Statement of Works request or modification application will be based on the date of formation of the Alternative Connection Offer (that is, the date that WPD dates the Customer's signed Acceptance Form).

- 13.4 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.
- 13.5 Should transmission system works be required, NGET may apply a cancellation charge in the event that this Agreement is terminated or a reduction to the Maximum Export Capacity is agreed, which shall be payable by the Customer. NGET also calculates a secured amount in respect of this cancellation charge (being a percentage of the cancellation charge, which reduces at certain trigger points). WPD shall be entitled to require the Customer to provide security in respect of this cancellation charge. For the avoidance of doubt the Customer shall not be required to provide security in excess of the secured amount calculated by NGET.
- 13.6 WPD shall be entitled to terminate this Agreement if the Customer:
- 13.6.1 fails to pay any sums falling due under this clause; or
- 13.6.2 when requested to do so by WPD, fails to confirm that it will pay any sums for which it is responsible under this clause.
- 13.7 Due to the cumulative impact of new generation connections on the distribution system NGET has identified widespread issues on the transmission system that require mitigation. These issues are becoming evident through the Statement of Works responses WPD receives from NGET. NGET may require modifications to be made to the operating characteristics of the generator units on generator sites in some areas. This may include, without limitation, a requirement to operate at a different power factor to that proposed under the Alternative Connection Offer, to have the capability of operating within a power factor range and/or to reduce the export capability to zero at certain times. Accordingly, the Customer accepts that WPD may, at its sole option, require an amendment to this Agreement to reflect the modified operating characteristics required by NGET and/or the revised Connection Charge. For the avoidance of doubt this may be after acceptance by the Customer of the Alternative Connection Offer. Clause 14 of the General Conditions for Connection Works does not apply to any such variation. If the Customer does not accept (in accordance with its terms) or disputes any variation to this Agreement required by WPD as notified to the Customer, then WPD shall have the option to terminate (with immediate effect by notice) the Agreement. Any modification to the operating characteristics of the Customer's generator units required by NGET will also be reflected in the Connection Agreement governing the Premises.
- 13.8 WPD shall not be liable to the Customer for any modification to the operating characteristics of the generator units required by NGET (including any reduction of export capacity arising out of or in connection with such modification), any delay in the anticipated date for connection or Energisation of the Premises, any amendment to this Agreement or

revision of the Connection Charge pursuant to this clause, or any related costs, damages, expenses or losses (including, without limitation, third party losses, loss of profit or economic loss).

Acceptance Form

Please complete Part B of this form and return to:

Avonbank Feeder Road St Philips Bristol BS2 0TB FAO: [•]

The Agreement (including the General Conditions for Connection Works) between the Customer and WPD shall be formed when WPD dates Part C of this Acceptance Form.

Part A: Connection Details

Premises: [•]Customer: [•]

Company Number (if appropriate): [•]

Customer Address:

[•]

Part B: (to be completed by the Customer)

I/We, the Customer, accept the terms of the Alternative Connection Offer dated [•] (including the General Conditions for Connection Works) and wish to proceed on the basis of the option indicated below.

Option 1 – WPD to undertake both Non-contestable and Contestable works

Option 1 price [•]plus VAT of [•] (For scheme and version [•]

Option 2 – WPD to undertake the Non-contestable work only

Option 2 price [\bullet]plus VAT of [\bullet] (For scheme and version [\bullet]

I/We, the Customer, accept responsibility for any reasonable costs that WPD may incur as a result of any termination in accordance with clause 13.3 of the General Conditions for Connection Works.

Signed for and on behalf of the Customer
Full Name

Part C: (to be completed by Western Power Distribution)

Signed..... for and on behalf of Western Power Distribution Western Power Distribution (South West) plc Registered in England and Wales No. 2366894 Registered Office: Avonbank, Feeder Road, Bristol BS2 0TB Dated.....



Serving the Midlands, South West and Wales

Customer SHE Risk Information

Construction (Design and Management) Regulations 2015

Hazard Category	Risk & Action Required	Further details attached?
Restrictions		
Site access/ egress		Yes / No
Proximity of live conductors/ other utilities		Yes / No
Adjacent land use		Yes / No
Space restrictions		Yes / No
Designated sites (SSSIs)/ invasive plants/ protected species (incl. nesting birds)		Yes / No
Site Conditions		
Asbestos		Yes / No
Confined spaces		Yes / No
Contaminated land/ radon		Yes / No
Ground conditions (incl. proximity of water courses)		Yes / No
Site Activities		
Vehicle movements (incl. heavy plant)		Yes / No
Fire/ hot work		Yes / No
Excavations		Yes / No
Work at height/ falling objects		Yes / No
Lifting operations (cranes)		Yes / No
Hazardous substances/ biological agents		Yes / No
Other		



Cost of Legal Fees Statement

- 1. The Connection Charge stated in this Alternative Connection Offer is:
- 1.1 inclusive of the costs incurred by WPD specialist staff in, or arising from, securing, obtaining or procuring all the necessary Rights in Freehold Land and/or Rights in Leasehold Land, for example securing wayleaves or easements; and
- 1.2 exclusive of WPD's solicitors fees and costs incurred in, or arising from, securing, obtaining or procuring all the necessary Rights in Freehold Land and/or Rights in Leasehold Land (where such professional services are deemed necessary by WPD, at its absolute discretion).
- 2. Should you choose to accept this Alternative Connection Offer and such professional services are deemed necessary be WPD in order to secure, obtain or procure any Rights in Freehold Land and/or Rights in Leasehold Land, we will instruct our solicitor to confirm their estimated costs for the work within their initial correspondence to you. Our solicitor will recover these costs directly from you or your appointed legal representative.
- 3. For guidance purposes only, our solicitors will normally charge in the region of £675 £800 + VAT and disbursements. For more complicated or larger schemes these costs may increase.
- 4. Should you accept this Alternative Connection Offer and Rights in Freehold Land and/or Rights in Leasehold Land in respect of the Premises are required (as confirmed by WPD), please complete the form below and return it with your Acceptance Form in order to help us progress the legal aspects of the connection.

Land owner(s)' details
Land owners name(s):
Telephone/mobile:
E-mail:
Address:

Legal representative details		
Legal representative acting for land owner(s):	Company Name:	
for land owner(s).	Contact name:	
Telephone/mobile:		
E-mail:		
Addross:		

Address:

1

Please include details of the Freeholder plus any person with a leasehold interest of the land.