

## Heart of the South West Local Enterprise Partnership Response – April 2016

Question	Response																								
<b>About you and your work</b>																									
1. What is the name of your company?	Heart of the South West (HotSW) Local Enterprise Partnership (LEP) Community Interest Company (CIC). We are a partnership between the private sector, local authorities, universities and further education providers across Somerset, Devon, Plymouth and Torbay.																								
2. In which DNO's region do you generally operate (see Annex 2 for DNO map)? If you operate in more than one DNO's region please indicate which DNO your responses to the following questions refer to.	Western Power Distribution South West (WPD) to which these responses refer. Southern Electric Power Distribution also covers a small section of our geography.																								
3. What type of connection do you generally require? And for each type of connection, how many connection applications, including total MVA (Mega Volt Ampere) of connections have you made in the past year?	<table border="1"> <thead> <tr> <th data-bbox="808 751 1368 804">Type of connection</th> <th data-bbox="1368 751 1610 804">Total number of connections</th> <th data-bbox="1610 751 1852 804">Total MVA of connections</th> </tr> </thead> <tbody> <tr> <td data-bbox="808 804 1021 1002" rowspan="4"><b>Metered Demand Connections</b></td> <td data-bbox="1021 804 1368 857">Low Voltage (LV) Work</td> <td data-bbox="1368 804 1610 857"></td> </tr> <tr> <td data-bbox="1021 857 1368 909">High Voltage (HV) Work</td> <td data-bbox="1368 857 1610 909"></td> </tr> <tr> <td data-bbox="1021 909 1368 962">HV and Extra High Voltage (EHV) Work</td> <td data-bbox="1368 909 1610 962"></td> </tr> <tr> <td data-bbox="1021 962 1368 1002">EHV work and above</td> <td data-bbox="1368 962 1610 1002"></td> </tr> <tr> <td data-bbox="808 1002 1021 1123" rowspan="2"><b>Metered Distributed Generation (DG)</b></td> <td data-bbox="1021 1002 1368 1054">LV work</td> <td data-bbox="1368 1002 1610 1054"></td> </tr> <tr> <td data-bbox="1021 1054 1368 1107">HV and EHV work</td> <td data-bbox="1368 1054 1610 1107"></td> </tr> <tr> <td data-bbox="808 1123 1021 1257" rowspan="3"><b>Unmetered Connections</b></td> <td data-bbox="1021 1123 1368 1176">Local Authority (LA) work</td> <td data-bbox="1368 1123 1610 1176"></td> </tr> <tr> <td data-bbox="1021 1176 1368 1228">Private finance initiatives (PFI) Work</td> <td data-bbox="1368 1176 1610 1228"></td> </tr> <tr> <td data-bbox="1021 1228 1368 1257">Other work</td> <td data-bbox="1368 1228 1610 1257"></td> </tr> </tbody> </table>	Type of connection	Total number of connections	Total MVA of connections	<b>Metered Demand Connections</b>	Low Voltage (LV) Work		High Voltage (HV) Work		HV and Extra High Voltage (EHV) Work		EHV work and above		<b>Metered Distributed Generation (DG)</b>	LV work		HV and EHV work		<b>Unmetered Connections</b>	Local Authority (LA) work		Private finance initiatives (PFI) Work		Other work	
Type of connection	Total number of connections	Total MVA of connections																							
<b>Metered Demand Connections</b>	Low Voltage (LV) Work																								
	High Voltage (HV) Work																								
	HV and Extra High Voltage (EHV) Work																								
	EHV work and above																								
<b>Metered Distributed Generation (DG)</b>	LV work																								
	HV and EHV work																								
<b>Unmetered Connections</b>	Local Authority (LA) work																								
	Private finance initiatives (PFI) Work																								
	Other work																								
<b>Consultation questions</b>																									
1. Do you consider there are constraints on the network in this DNO's region?	Yes, the rapid growth of distributed renewable energy in the past five years, particularly of solar photovoltaics, has caused extensive constraints on the grid																								

<p><b>If there are no constraints please do not answer the following questions.</b></p>	<p>network.</p> <p>There is a particular constraint on the 'F' route grid line, that runs from Bridgwater Grid Supply Point (GSP) to Seabank GSP (in the Bristol docks area) has reached full capacity. The consequence is a delay of 3-6 years for new connection offers to all generation projects seeking to connect to the grid requiring works at High Voltage (HV) level i.e. above 6.6kV or 11kV.</p> <p>The 'F' route constraint is, however, not the only issue for the distribution network in the South West. A map of other constrained areas can be found on the <a href="#">WPD website</a>. Therefore, resolving the 'F' route constraint alone would have limited impact in freeing up capacity on the grid network.</p>
<p>2. What impact have these constraints had on your ability to get connected to the network?</p>	<p>We are a partnership between the private sector, local authorities, universities and further education providers across Somerset, Devon, Plymouth and Torbay.</p> <p>The constraints and costs of new connections are creating areas of extreme fragility across the Heart of the South West, limiting potential inward investment, leading to the loss of potential employment opportunities, as well as preventing growth of existing businesses.</p> <p>We have identified a number of examples of projects jeopardized by current grid constraints. Some illustrative examples are provided in <b>Appendix A</b>.</p>
<p>3. To what extent has the DNO tried to find ways to help you get connected in constrained areas? For example:</p>	<p>More effective 'queue' management of requests for connections has also been introduced by WPD, whereby businesses with 'grid offers' must show evidence that progress towards a connection is being made, i.e. will not be stalled by planning, lack of finance, etc. This releases capacity in order that grid offers can be made to the next customer in the 'queue'.</p>
<p>a. To what extent has the DNO offered you more flexible and alternative connection arrangements alongside conventional firm connections? If not, then have they explained why not?</p>	<p>Western Power has introduced a number of measures to mitigate the issue to include:</p> <ul style="list-style-type: none"> <li>• 3-6 year delay for new high voltage generation connections</li> <li>• Encouraging existing generation connections to turn off their generators at times of lowest demand for power, the middle of the day and in the summer months</li> </ul> <p>In summary, the following 'alternative connections' have been offered within the HotSW:</p>

	<ul style="list-style-type: none"> <li>• <i>Timed connections</i></li> <li>• <i>Soft -Intertrip</i></li> <li>• <i>Active Network Management</i></li> </ul>
b. If the DNO does offer alternative arrangements, is the information provided sufficient to decide whether or not to go forward with the connection?	The HotSW LEP has recently commissioned work to produce a guidance note for businesses wishing to make new connections and outlining the options available, as information from WPD and business access to it was considered insufficient.
c. If the DNO does offer alternative arrangements, do you find the associated terms (eg. level of potential curtailment and certainty around maximum curtailment levels) acceptable?	<p>Timed connections are only suitable for capacities under 1MVA. They mainly restrict export to the grid during the day between April and October and so are not suitable for large Photovoltaic projects that export large amounts of energy during this period.</p> <p>This is suitable for all capacities and voltage levels, although due to the coarse method of curtailment, there will be a maximum number of participants allowable per area. In practice the grid constraints in the South West are so extensive that soft-intertrip is rarely a viable option.</p> <p>Active Network Management areas are being piloted in neighbouring LEP areas and do not yet cover the HotSW.</p>
4. What information has the DNO shared with you on its work plan of activities designed to help enable connections in these areas?	<p>Western Power Distribution do not appear to have a clear plan for long term strategic capital investment agreed at this time.</p> <p>The work National Grid is undertaking to connect the Hinkley C nuclear power plant offers a potential solution to grid constraints, as it would involve the WPD 'F' Route being replaced by a National Grid line with a higher capacity. However, this work remains subject to considerable uncertainty and a 3-6 year delay.</p>
a. How comprehensive has this information been?	Not very.
b. To what extent has the DNO provided information on associated delivery dates of its work plan of activities?	Insufficient detail provided.
c. Are you aware if the DNO is	Access to data is currently limiting WPD's ability to progress Smart Grid

<p>forecasting future levels of growth in the type of connections you require?</p>	<p>Management solutions.</p>
<p>d. Are you aware of any plans the DNO has to invest in new network capacity where the network is constrained, to enable further customer connections? Have you been consulted on these plans? Has the DNO explored with you ways in which this could be funded?</p>	<p>The HotSW LEP, and Local Authority representatives within the HotSW area, were invited to attend and participate in workshops, hosted by WPD, on Strategic Investment Options for Further Growth of Distributed Generation in the South West. These were held in September 2015 and February 2016.  <a href="http://www.westernpower.co.uk/About-us/Our-Business/Our-network/Strategic-network-investment.aspx">http://www.westernpower.co.uk/About-us/Our-Business/Our-network/Strategic-network-investment.aspx</a></p>
<p>5. Please give details of any other activities you would expect the DNO to be undertaking to deal with constraints on their network.</p>	<p>We would expect WPD to:</p> <ul style="list-style-type: none"> <li>• Be more proactive in their engagement with local businesses to increase awareness of the range of opportunities available to achieve new connections;</li> <li>• Adopt a less risk averse approach to potential stranded infrastructure issues; and</li> <li>• Work in partnership with the HotSW LEP to identify and implement innovative, smarter and more flexible approaches to maximising the value of the existing infrastructure.</li> </ul> <p>We ask that WPD:</p> <ul style="list-style-type: none"> <li>• Set out their investment plans for the next 25 years;</li> <li>• Bring forward programmes of work; and</li> <li>• Ensure that our economic potential is not hindered by lack of capacity.</li> </ul> <p>We welcome the opportunity that this consultation provides and would like to emphasise our wish as a Local Enterprise Partnership, and on behalf of the Local Authorities within our geography, for ongoing dialogue on this subject.</p>