

LCNF Full Submission

Supplementary Answer Form

DNO Name:	Electricity North West Limited	Question Number:	ENWL013
Question Date:	15 Sept 2010	Answer Date:	12pm 20 Sept 2010
Question Topic:		Box 26	

Original Question No:		Original Answer Date:	
Original Question:			
Original Answer:			

Question:	Associated with the delivery of "Manchester: A certain Future" - what are the existing plans in place to ensure the network is able to support the introduction of low-carbon enabling technologies?
------------------	--

Answer:	<p>We were contributors to the "Manchester: A Certain Future", published in December 2009, and we are therefore aware of the potential impacts to our distribution network.</p> <p>Presently we have not committed any expenditure specifically to ensure that the network can support the introduction of low carbon enabling technologies in advance of connection enquiries.</p> <p>Aspirational plans such as these do recognize that there is little existing experience of delivering low carbon energy systems. It is vital that projects such as this LCNF trial take place so that we mutually determine how to design and install low carbon networks as effectively and efficiently as possible.</p> <p>In the absence of LCNF funding and scope for specific trials, we have strategies to cater for these connections should they materialise as traditional demands. The connection of low carbon enabling technologies (eg PV, heat pumps, EV refueling etc) represent three main problems for the distribution network:</p>
----------------	---

	<ol style="list-style-type: none"> 1. Voltage compliance – we would address this issue through the application of traditional network reinforcement and also through the application of the distribution transformer that incorporates an on-load tap-changer (developed by Areva T&D in conjunction with Electricity North West and funded through the IFI); 2. Network Capacity – we would address this through the application of traditional network reinforcement and/or the application of demand side management (DSM) techniques learnt from our recent DSM experiences. Typically we would look to use 33kV and HV network reconfiguration to maximize existing spare capacity but specifically we envisage that the provision of a new primary substation infeed to the area will be necessary. 3. Fault Level – we would address this through network reconfiguration and/ or the replacement of switchgear that would be overstressed by the connection of new distributed energy resources.
--	--

Attachments:	None.
---------------------	-------