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*Promoting choice and value for all gas
and electricity customers*

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Date: 19 July 2010

Dear Colleague,

Decision on Western Power Distribution's (WPD¹) Low Carbon Networks (LCN) Fund Second Tier Screening Submission

In the Final Proposals of the electricity Distribution Price Control Review (DPCR5), we proposed a £500m Low Carbon Networks (LCN) Fund to encourage the DNOs to use the DPCR5 period to try out new technology, operating and commercial arrangements. The objective of these trials and demonstration projects is to help DNOs understand how they provide security of supply at value for money as Great Britain (GB) moves to a low carbon economy, and what role they could play in facilitating the low carbon and energy saving initiatives that are underway to tackle climate change.

The regulation, governance, and administration of the LCN Fund are set out in the LCN Fund Governance Document² issued pursuant to Charge Restriction Condition 13 of the Electricity Distribution Licence. The LCN Fund Governance Document states that under the Second Tier Funding Mechanism, DNOs can submit project proposals which compete annually for funding. In order to compete for this funding, a project must first pass the Initial Screening Process (ISP). Under the ISP, DNOs must submit a summary proposal of their project (Screening Submission) which Ofgem will use to assess the project against the Eligibility Requirements set out in the LCN Fund Governance Document.

WPDT2001 – Impact of renewable generation technology on distribution network templates

On 21 June 2010, WPD submitted a Screening Submission summarising their Second Tier LCN Project entitled 'Impact of renewable generation technology on distribution network templates'³ (the Project). The Authority has now reviewed the Project against the Eligibility Requirements using the information provided in the Screening Submission. The Authority considers the Project has **met the Eligibility Requirements and has therefore passed the ISP**. The Authority's reasons are set out below.

¹ In this context, WPD relates to both Western Power Distribution (South Wales) plc and Western Power Distribution (South West) plc

² Version 2 of the Governance document can be found at: <http://www.ofgem.gov.uk/Networks/ElecDist/lcnf/Pages/lcnf.aspx> alongside the Authority's Notice of its intention to publish version 3 of the Governance document.

³ The first page of WPD's Screening Submission for their Project 'Impact of renewable generation technology on distribution network template's can be found at: <http://www.ofgem.gov.uk/Networks/ElecDist/lcnf/stlcnf/Documents1/WPDLCNFTie2revisedsummary.pdf>

Authority's reasons

In order to pass the ISP a Second Tier LCN Project must meet at least one of the four specific requirements set out in Chapter 2 of the LCN Fund Governance Document.

A Second Tier LCN Project must involve the trialling on the Distribution System of at least one of the following:

- A specific piece of new (i.e. unproven in GB) equipment (including control and communications systems and software) that has a Direct Impact on the Distribution System,
- A novel arrangement or application of existing Distribution System equipment (including control and communications systems software),
- A novel operational practice directly related to the operation of the Distribution System, or
- A novel commercial arrangement.

The Authority notes the Project will seek to deploy proven monitoring equipment on LV networks at significant scale in areas undergoing significant low carbon redevelopment. The network performance data gathered will be used to better inform the future development and operation of these networks to characterise them as standard templates. The Authority considers that, since the Project operates in conjunction with low carbon redevelopment, it can be described as a novel application of existing Distribution System equipment. Consequently, the Authority considers that the Project meets one of the specific requirements.

In addition to meeting at least one of the specific requirements, a Second Tier LCN Project must also meet all of the criteria set out in Chapter 2 of the LCN Fund Governance Document. The Authority has considered WPD's Project against all these criteria.

(a) Accelerates the development of a low carbon energy sector

The Authority notes that the Project will seek to gain new knowledge about the performance of the distribution system as it is required to accommodate low carbon technologies such as distributed generation (DG), heat pumps and changes in end user demand. This information will be useful when planning and designing future networks to facilitate the growth of these low carbon technologies. In particular, a better understanding of the behaviour of these networks may reduce the need for reinforcement and help determine how the optimum level of network monitoring. We note that facilitation of these technologies is part of the Department of Energy and Climate Change's (DECC) Low Carbon Transition Plan⁴ which looks to reduce the UK's carbon emissions. The Authority is therefore satisfied that the Project meets this criterion.

(b) Has a Direct Impact on the operation of the distribution network

The Authority notes that the Project will involve monitoring how significant low carbon redevelopment within an area can impact the operation of the network. This monitoring will provide detailed information about the performance and capacity margins of specific circuits allowing targeted interventions to take place as required. This information will better inform the future planning and operation of the network and identify where the connection of DG, heat pumps and other low carbon devices can be connected without triggering reinforcement. Therefore, the Authority is satisfied that the Project meets this criterion. The Authority notes that WPD could have been much clearer in their Screening Submission in explaining how the production of information from the trial could be used to have a Direct Impact on the distribution network. We hope that this can be addressed as part of any full submission.

⁴ http://www.decc.gov.uk/en/content/cms/publications/lc_trans_plan/lc_trans_plan.aspx

(c) Creates new knowledge that can be shared amongst DNOs

The Authority notes that whilst the Project uses proven equipment, it is deployed to monitor the impact of novel developments on a distribution system. Therefore, it is likely to produce new knowledge which will aid DNOs in the planning and operation of future networks as more areas undergo similar low carbon redevelopment. We note that the Project involves capturing, analysing and disseminating the results of the trial which will be supported by academics. Consequently, the Authority is satisfied that the Project meets this criterion.

(d) Has the potential to deliver net benefits to existing and/or future customers

The Authority notes that the Project will produce data and highlight trends which will enable more efficient planning and operation of future networks as low carbon redevelopment and the deployment of low carbon technologies become more prevalent. This more efficient network design will be passed on to customers in the form of lower distribution use of system (DUoS) charges and faster, lower cost connections for DG and electric vehicle charging points. The Authority is therefore satisfied that the Project meets this criterion.

(e) Focuses on network Solution which are at the trialling stage and require Second Tier funding

The Authority notes the Project uses components and techniques that are proven. However, they have not been deployed and integrated at this scale previously alongside the widespread connection of low carbon technologies, using a common architecture. We are therefore satisfied that the Project is at the trialling stage and that it meets this criterion.

This decision constitutes notice pursuant to Section 49A of the Electricity Act 1989.

If you have any questions in relation to this letter please contact Mark Askew at mark.askew@ofgem.gov.uk or on 0207 901 7022.



Rachel Fletcher

Partner, Distribution

Signed on behalf of the Authority and authorised for that purpose by the Authority