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

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Date: 19 December 2011

Dear Company Secretary,

Project Direction ref: UKPN EPN/ Flexible Plug and Play Low Carbon Networks/ 19-12-11

Project Direction issued to Eastern Power Networks plc (part of UK Power Networks and herein referred to as "UKPN") pursuant to the LCN Fund Governance Document¹ issued pursuant to Part E of Charge Restriction Condition 13 (Low Carbon Networks Fund) ("CRC13") of the Electricity Distribution Licence setting out the terms to be followed in relation to the Flexible Plug and Play Low Carbon Networks project (the "Project") as a condition of it being funded under the Second Tier and Discretionary Funding Mechanism².

CRC13 establishes the arrangements, known as the Low Carbon Networks Fund ("LCN Fund"), for the purposes of incentivising the development of low carbon networks.

Part E of CRC13 requires the Gas and Electricity Markets Authority (the "Authority") to issue the LCN Fund Governance Document for the purposes of regulating, governing and administering the LCN Fund.

Part G of CRC13 defines a Project Direction as a direction issued by the Authority pursuant to the LCN Fund Governance Document setting out the terms to be followed in relation to the Eligible LCN Fund Project³ as a condition of its being funded pursuant to the Second Tier and Discretionary Funding Mechanism. A Project Direction must, by virtue of paragraph 3.74 of Section Two of the LCN Fund Governance Document:

- set out the Project-specific conditions that a distribution network operator ("DNO") is committing to in accepting Second Tier Funding⁴;
- require the DNO to undertake the Project in accordance with the commitments it has made in the Full Submission⁵. Where appropriate the Project Direction may therefore include extracts from the Full Submission;

¹ <http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=77&refer=Networks/ElecDist/lcnf>

² Second Tier and Discretionary Funding Mechanism has the meaning given in CRC 13.3(b).

³ Eligible LCN Fund Project has the meaning given in Part G of CRC 13.

⁴ Second Tier Funding has the meaning given in CRC13.11.

⁵ Unless otherwise specified, defined terms (terms in capitals) in this Project Direction are defined in Section seven of the LCN Fund Governance Document.

- set out the Approved Amount for the Project, as defined in CRC13.28, that will form part of the calculation contained in the direction issued by the Authority under CRC13.16 (the Funding Direction);
- set out the Project Budget that the DNO must report against and how variances against the Project Budget will be reported and approved.

UKPN submitted the Project for funding under the LCN Fund on 18 August 2011 and the Authority decided to award the funding to UKPN in a decision dated 27 November 2011 (the "Decision Document"⁶) subject to UKPN complying with CRC 13, the LCN Fund Governance Document (as may be modified from time to time in accordance with CRC 13 and as modified and/or augmented in respect of this Project by this Project Direction) and this Project Direction. In accordance with the LCN Fund Governance Document the Authority hereby requires UKPN to comply with the conditions set out in the Schedule to this Project Direction.

This Project Direction is issued by the Authority, and provided UKPN complies with the LCN Fund Governance Document and this Project Direction, the Project is deemed to be an Eligible LCN Fund Project, as defined in CRC13.

This Project Direction constitutes notice pursuant to section 49A (Reasons for decisions) of the Electricity Act 1989.



Rachel Fletcher

Acting Senior Partner, Distribution and Governance

Signed on behalf of the Authority and authorised for that purpose by the Authority
19 December 2011

⁶ <http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=92&refer=Networks/ElecDist/Lcnf>

Schedule to Project Direction

1. TITLE

Project Direction ref: UKPN/Flexible Plug and Play Low Carbon Networks/19-12-11

2. PREAMBLE

This Project Direction issued by the Gas and Electricity Markets Authority (the "Authority") to Eastern Power Networks plc (the "Implementing DNO") pursuant to the LCN Fund Governance Document issued pursuant to Part E of Charge Restriction Condition 13 (Low Carbon Networks Fund) ("CRC 13") of the Electricity Distribution Licence (the "Licence") sets out the terms to be followed in relation to the Flexible Plug and Play for Low Carbon Networks project (the "Project") as a condition of it being funded under the Second Tier and Discretionary Funding Mechanism⁷.

Unless otherwise specified, defined terms in this Project Direction are defined in section 7 of the LCN Fund Governance Document.

References to specific sections of the Implementing DNO's Full Submission in this Project Direction are, for ease of reference, made by referring to the section number in the Implementing DNO's Full Submission pro-forma.

3. CONDITION PRECEDENT

The Implementing DNO will not access any funds from the Project Bank Account until it has signed contracts with the Project Partners named in Table 1.

Table 1 Condition Precedent

Cable & Wireless Worldwide
Smarter Grid Solutions
Alstom Grid
Fundamentals
GL Garrad Hassan
Imperial College London
University of Cambridge

4. COMPLIANCE

The Implementing DNO must comply with CRC13 and the LCN Fund Governance Document (as may be modified from time to time in accordance with CRC13 and as modified and/or augmented in respect of the Project by this Project Direction) and the Project Direction.

Any part of the Approved Amount that the Authority determines not to have been spent in accordance with this Project Direction (or the LCN Fund Governance Document) is deemed to be Disallowed Expenditure.

Pursuant to CRC 13.14 Disallowed Expenditure is revenue received (whether by the Implementing DNO or another DSP⁸) under the Second Tier and Discretionary Funding Mechanism that the Authority determines not to have been spent in accordance with the provisions of the LCN Fund Governance Document or those of the relevant Project Direction.

Pursuant to paragraph 3.117 of Section Two of the LCN Fund Governance Document, Disallowed Expenditure includes any funds that must be returned if the Project is halted

⁷ Second Tier and Discretionary Funding Mechanism has the meaning given in CRC 13.3(b).

⁸ As defined in the Licence.

without Ofgem's⁹ permission, any funds that have not been spent in line with the approved Project Budget contained within the Project Direction, and any unspent funds on the completion of the Project.

5. APPROVED AMOUNT FOR THE PROJECT

The Approved Amount is £6,780k

6. PROJECT BUDGET

The Project Budget is set out in Annex 1. The Implementing DNO must not spend more than 110% of any category total (e.g. "Labour") in Annex 1 without the Authority's prior consent (such consent is not to be unreasonably withheld).

The Implementing DNO will report on expenditure against each line under the category totals in the Project Budget, and explain any projected variance against each line total in excess of 5% as part of its detailed report which will be provided at least every six months, in accordance with paragraph 3.92 of Section Two of the LCN Fund Governance Document. Ofgem will use the reported expenditure and explanation to assess whether the funding has been spent in accordance with the LCN Fund Governance Document or with this Project Direction.

For the avoidance of doubt this reporting requirement does not change or remove any obligations on the Implementing DNO with respect to reporting that are set out in the LCN Fund Governance Document.

7. PROJECT IMPLEMENTATION

The Implementing DNO must undertake the Project in accordance with the commitments it has made in the Full Submission approved by the Authority pursuant to the LCN Fund Governance Document and the terms of this Project Direction. These include (but are not limited to) the following:

- (i) undertake the Project in accordance with the description set out in Section 2 (Project Description);
- (ii) provide a DNO Compulsory Contribution of £989k;
- (iii) provide a DNO Extra Contribution of £1,002k;
- (iv) complete the Project on or before the Project completion date of 31 December 2014; and
- (v) disseminate the learning from the Project at least to the level described in Section 5 (Knowledge Dissemination) of the bid submission pro-forma.

8. REPORTING

Ofgem will issue guidance (which may be amended from time to time) about the structure and content of the reports required by paragraph 3.92 of Section Two of the LCN Fund Governance Document. The Implementing DNO must follow this guidance in preparing the reports required by paragraph 3.92 of Section Two of the LCN Fund Governance Document.

9. COST OVERUNS

⁹ Ofgem is the offices of the Gas and Electricity Markets Authority. The terms 'Ofgem' and 'Authority' are used interchangeably in this Project Direction.

The maximum amount of Discretionary Funding that the Implementing DNO can request as additional funding for cost overruns on the Project is 5%.¹⁰

10. INTELLECTUAL PROPERTY RIGHTS (IPR)

In Section 5 (Knowledge Dissemination) of the bid submission pro-forma the Implementing DNO has stated that the Project does conform to the default IPR arrangements set out in Section 5 of the LCN Fund Governance Document and must therefore undertake the Project in accordance with the default IPR arrangements.

11. SUCCESSFUL DELIVERY REWARD CRITERIA

The Project will be judged by the Authority for the purposes of the Second Tier Successful Delivery Reward against the Successful Delivery Reward Criteria set out in Table 2¹¹ below (that comply with paragraphs 3.27 and 3.28 of Section Two of the LCN Fund Governance Document).

Table 2. Successful Delivery Reward Criteria

Successful Delivery Reward criterion	Evidence
Completion of the first phase of stakeholder engagement activities by the end of September 2012. This will include a stakeholder engagement report that will record the findings from the first phase of stakeholder engagement activities identifying key technical and commercial challenges to the FPP project. These findings will be shared with all the relevant stakeholders, including all GB DNOs, and will form a key input to the Strategic Investment Model and Smart Commercial Arrangements FPP project work streams.	Publication of a stakeholder engagement report ("Stakeholder Engagement report I").
Development of smart commercial arrangements, which will provide a number of options that can be tested and implemented in new types of connection agreements with generation developers. These will be established in conjunction with key stakeholders. The development of smart commercial arrangements will be completed by the end of December 2012 in accordance with agreed specifications.	<ul style="list-style-type: none"> - Publication of a report on Principles of Access, which will determine the Principles of Access for Smart commercial arrangements. - Connection agreements templates (new model forms) for actively managed generator connections, to be established in conjunction with key stakeholders.
Full deployment of an IP communications platform across the FPP trial area to support open standards communication protocols. This will be completed by the end of March 2013.	<ul style="list-style-type: none"> - Installation and commissioning documentation of Cable & Wireless Worldwide Multi-Service Platform (MSP) network and Silver Spring Networks Radio Frequency (RF) Mesh network in the FPP trial area and in accordance with the specification included in the contracts with the relevant partners. - Recorded results of IEC 61850 communication trials using IEC 61850 simulators at installed locations in the FPP trial area.
Demonstration of flexible plug and play capabilities of the overall FPP technical	- IEC 61850 certification for all relevant RTUs, IEDs and other IEC 61850 field devices.

¹⁰ This is the amount requested by the Implementing DNO in its Full Submission.

¹¹ These are the Successful Delivery Reward Criteria set out in the Implementing DNOs Full Submission

<p>solution following completion of the FPP installation phase. This will be completed by the end of September 2013.</p>	<ul style="list-style-type: none"> - Installation and commissioning documentation of IEDs and other field devices necessary to support the trials and in accordance with the specification included in the contracts with the relevant partners. - Installation and commissioning documentation of production of Smart Applications in accordance with the specification included in the contracts with the relevant partners. - Pre-production interoperability test results for FPP's Smart Devices and Smart Applications.
<p>Delivery of the FPP Strategic Investment Model including validation and testing of the model utilising data captured within the FPP trials. This will be completed by the end of December 2014.</p>	<ul style="list-style-type: none"> - Completion documentation for the Strategic Investment Model development and build phase. - Recorded validation and test results. - Delivery of the Strategic Network Investment model in a fully usable and external issue format.
<p>Deployment of Active Power Flow Management and Active Voltage Management within the FPP trial area. This will be completed by the end of December 2014.</p>	<ul style="list-style-type: none"> - Pre-production functional test results for Active Power Flow Management and Active Voltage Management applications. - Installation and commissioning documentation of production Active Power Flow Management and Active Voltage Management applications in accordance with the specification included in the contracts with the relevant partners. - Suitable agreements with generators in place (if required). - Trial results for the Active Power Flow Management and Active Voltage Management trials.
<p>Facilitation of faster and cheaper connection of distributed generation to the distribution network, as compared to timescales and costs of connection utilising traditional approaches. To be completed by the end of December 2014.</p>	<p>Demonstration that distributed generation connection offers are:</p> <ol style="list-style-type: none"> 1 - Cheaper; and 2 - Offer faster project connection timescales, than offers based traditional reinforcement. <p>The evidence for this criterion will be met through the provision of one connection offer to generators using the FPP methods. If during the duration of the FPP project other generators are in a position to accept a connection offer, then we will use that as evidence supporting this criterion.</p>
<p>Successful deployment of a Quadrature-booster within the FPP trial area. This will be completed by the end of June 2013.</p>	<ul style="list-style-type: none"> - Installation and commissioning of a Quadrature-booster and in accordance with the specification included in the contracts with the relevant partners. - Demonstration of improved balance between the circuits allowing increased power flow of 10MW.

The maximum amount of the Second Tier Successful Delivery Reward (which will not exceed the DNO Compulsory Contribution) that the Project will be eligible for is £989k;

12. USE OF LOGO

The Implementing DNO, Project Partners, External Funders and Project Supporters¹² may use the LCN Fund logo for purposes associated with the Project but not use the Ofgem or Ofgem E-Serve logos in any circumstances.

13. AMENDMENT OR REVOCATION

As set out in the LCN Fund Governance Document and this Project Direction, this Project Direction may be amended or revoked under the following circumstances:

- (i) if the Implementing DNO considers that there has been a material change in circumstance that requires a change to the Project Direction, and the Authority agrees (paragraph 3.94 of Section Two of the LCN Fund Governance Document); or
- (ii) if Ofgem agrees to provide Discretionary Funding, which requires the re-issue of the Project Direction (paragraph 3.102 of Section Two of the LCN Fund Governance Document); or
- (iii) if the Implementing DNO applies for Discretionary Funding to cover a decrease in Direct Benefits and the Authority decides it would be in the best interest of customers to make changes to the Project Direction before the Discretionary Funding would be awarded (paragraph 3.101 of Section Two of the LCN Fund Governance Document).

14. HALTING OF PROJECTS

This Project Direction is subject to the provisions contained in paragraphs 3.103 to 3.107 of Section Two of the LCN Fund Governance Document relating to the halting of projects. By extension, this Project Direction is subject to any decision by the Authority to halt the Project to which this Project Direction relates and to any subsequent relevant Funding Direction issued by the Authority pursuant to CRC13.16.

In the event of the Authority deciding to halt the Project to which this Project Direction relates, the Authority may issue a statement to the Implementing DNO clarifying the effect of that halting decision as regards the status and legal force of the conditions contained in this Direction.

NOW THEREFORE:

In accordance with the powers contained in the LCN Fund Governance Document issued pursuant to Part E of CRC13 (Low Carbon Networks Fund) of the Licence the Authority hereby issues this Project Direction to the Implementing DNO in relation to the Project.

This constitutes notice of reasons for the Authority's decision pursuant to section 49A of the Act.



Rachel Fletcher

Acting Senior Partner, Distribution and Governance

Signed on behalf of the Authority and authorised for that purpose by the Authority
19 December 2011

¹² As listed in Box 1.5 of Section 1 of the Full Submission pro-forma.