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11 January 2012

Dear Dora

Low Carbon Network Fund: Two Year Review

Thank you for the opportunity to contribute our learning from participation in the first two years of the Low Carbon Network (LCN) Fund in which UK Power Networks has been an active participant and successful in two major bids for second tier LCN funding, for Low Carbon London and Flexible Plug and Play.

This response should be regarded as a consolidated response on behalf of UK Power Networks' four electricity distribution licence holding companies: Eastern Power Networks plc, London Power Networks plc, South Eastern Power Networks plc, and UK Power Networks (IDNO) Ltd.

I can confirm that this response is non-confidential and can be published via the Ofgem website.

The LCN Fund is generally working well, with the lessons from the first year improving the 2011 second tier process. UK Power Networks believes that the current governance arrangements for the LCN Fund provide a sound basis for the governance of the RIIO-ED1 Network Innovation Competition (NIC) and Network Innovation Allowance (NIA).

Our detailed answers to the questions you have raised in the consultation are set out in the appendix to this letter.

I hope that you will find our comments helpful. If you have any questions please do not hesitate to contact me.

Yours sincerely

Keith Hutton
Head of Regulation

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Appendix – responses to the specific questions

Question 1: Do respondents consider that the evaluation criteria have driven certain types of projects at the expense of other learning outcomes? If so, what are these learning outcomes and do they need to be specifically stimulated?

There has been a tendency towards demand-side (consumer related) projects which we believe to be reasonable given that consumer participation in smart grids is essential and had been largely unexplored, and we have noted that the Expert Panel has expressed disappointment at the lack of technical innovation being proposed. We do not consider that this has been as a consequence of the evaluation criteria or that they restrict in any areas of 'low carbon' innovation.

Our experience to date with second tier LCN Fund projects has demonstrated that securing consumer and stakeholder involvement at an early stage is key to successful progress. There might therefore be merit in the evaluation criteria extending to a requirement to demonstrate robust consumer engagement plans in the bid submission (where applicable to the project's objectives).

Question 2. Do the evaluation criteria ensure that the LCN fund is compatible with future developments in smart grids?

While we do not consider that the evaluation criteria restrict low carbon innovation, further consideration may be worthwhile as to how projects fit into a long-term strategic roadmap to smart grids and also how projects contribute to making the transition to a low carbon energy infrastructure more affordable.

Question 3. We welcome your views and experiences on how we can enhance the requirements on learning dissemination for LCN Fund projects to ensure that industry gets the best value from them.

While individual LCN Fund second tier project learning dissemination strategies and the annual LCN Fund dissemination event are valuable vehicles for sharing learning, we believe that a more structured dissemination strategy is required in view of the increasing number of concurrent LCN Fund first and second tier projects. UK Power Networks has suggested an LCN Fund forum under the auspices of the ENA which would look to provide and share regular reports on progress. This would also be a useful forum for sharing ideas on future projects, avoiding duplication and exploring scope for collaboration on future project proposals.

Question 4. We welcome respondents' views on the level of duplication across first and second tier LCN Fund projects and what changes, if any, we should make to the LCN Fund governance to address this duplication.

We believe that some duplication has positive benefits in ensuring that assumptions about the impacts of technologies and customer behaviours are consistent across different networks and different parts of the country. A degree of repeatability should be seen as an essential part of any validation and some duplication in new projects can also be a very valuable means of transferring practical knowledge across the industry.

We believe, therefore, that the answer is to ensure that new projects build on previous projects (and/or allow for complementary projects to run concurrently), to test the repeatability of new innovation and provide validation of the results of trials. It follows that greater inter-DNO collaboration would be beneficial in order to ensure that apparently similar projects are complementary and/or agreement is reached on how excessive duplication might be minimised, for example by agreeing responsibilities for areas of focus.

Question 5. We welcome views on whether there is merit in each DNO undertaking its own monitoring or whether this could be avoided if all monitoring data was held in a single place and accessible to all DNOs.

Monitoring will be an essential component of any smart grid and there remains much scope to explore innovative and cost-efficient ways of achieving this. Specific monitoring of customers and networks may also be an important enabler of a smart grid project and a key component that should be included in the project even if apparently similar monitoring is deployed by other projects (smart meters would be one example of this).

Therefore we are not convinced that pooling monitoring data in a single place will necessarily avoid the need for additional monitoring in new projects. There is, however, merit in avoiding unnecessary duplication and, to that end, UK Power Networks and WPD have recently registered a joint first tier LCN Fund project exploring various approaches to monitoring low carbon networks.

Question 6. Given their wider scope, how can we best gain greater up front clarity in submissions on the learning outcomes of the larger, more complex projects?

The key for larger complex projects is for the context of the trials and the learning outputs to be clearly articulated in the bid submissions. For example, the Low Carbon London submission included a detailed catalogue of learning outcomes and reports which were also embedded in the Successful Delivery Reward Criteria. A further aid to understanding proposed learning outcomes is by including Use Cases; the Low Carbon London and Flexible Plug & Play submissions each included a comprehensive Use Cases document which clearly aided the Expert Panel in their evaluation of these projects.

Question 7. We would be interested to hear your views on your experiences of this website and other means of facilitating collaboration.

The ENA website is a useful and easily accessed source of reference which will clearly build as further projects are registered and funded. However, as stated in our response to question 3, we see merit in an ENA forum to ensure that project progress and learning dissemination is captured nearer to real time.

Question 8. How should we design the form and content of guidance on carbon benefits so that they are comparable across projects?

Assessing carbon benefits is inherently problematic, particularly so with innovation projects where the whole purpose of the project is to explore the practical application and the potential benefits it might give rise to.

In terms of a common framework for calculating carbon benefit, we would suggest measures related to the enablement of low carbon technologies rather than to actual carbon abatement (which in any case cannot be measured directly). For example, DECC's fourth carbon budget scenarios around future generation mix and electrification of heat and transport could be used as a common basis for evaluating the benefit that a given smart network innovation would deliver: that is, in terms of additional electric vehicles, heat pumps or low carbon generation enabled. For example Flexible Plug & Play clearly articulates the amount of onshore wind generation that could be delivered nationally through the proposed solution.

Question 9. How can we improve the LCN fund first and second tier processes?

We believe that the LCN Fund second tier procedure was much improved in its second year. In particular, the more interactive nature of the Expert Panel Session, the face-to-face meeting with the consultants and the second Expert Panel meeting all contributed to a better understanding of the aims of the projects submitted and of any concerns that the Expert Panel and consultants may have had. We recommend continuation of this procedure throughout the remainder of the LCN Fund programme and into the NIC.

Question 10. How could we implement an additional stage to allow DNOs to amend submissions in response to comments from the Expert Panel or technical consultants without undermining the competitive nature of the process?

There would be a number of challenges in introducing a further phase to the process. By the time submissions are formed most if not all, collaborative partners will have been engaged, overall objectives of the project agreed, an outline programme plan drawn up and successful delivery reward criteria specified. By the time the final submission is completed, and in order for projects to be ready for execution at the beginning of the next calendar year, the project should have a finalised collaborative partnership established and a detailed programme plan. Unpicking a carefully coordinated programme and restructuring the project at this stage would be extremely difficult and would put at risk the project being ready for execution.

However, there would be merit in reducing the 12 month delay in resubmitting a project into the following year's competition. To this end, it might be worth providing an opportunity for unsuccessful projects to rebid for any remaining funds a short time later, for example three months later. This would retain the competitive element and ensure that bids have to meet certain standards before funding is given.

Question 11. We welcome your views on the suggested timings and whether or not the delay between project submissions and the potential discretionary funding dampens the incentive.

We do not consider that the timings now suggested are a concern, or that they dampen the incentive; indeed, certainty over timing actually enhances the incentive.

Question 12. We would appreciate views on the easiest way to ensure a smooth transition from the LCN Fund to the new price control, whilst fulfilling the commitments we made on the LCN Fund in the DPCR5 Final Proposals.

We perceive no great difficulty in making the transition from the LCN Fund to the NIA and NIC. Any second tier projects awarded in 2014 will of course secure DUoS payments in year 1 of RIIO-ED1 (and will actually commence in the final quarter of DPCR5). First tier LCN Fund projects that commenced late in DPCR5 might continue into the RIIO-ED1 period and it will therefore be important to ensure that commitments entered into during DPCR5 are assured of continued funding (logically from the NIA) as they transition into RIIO-ED1. However, consideration will need to be given to IFI projects that continue into the RIIO-ED1 period, if it is considered that they do not meet the criteria for NIA funding.

There is a question as to whether the NIA and NIC should be purely 'carbon' related in the same way as the LCN Fund, especially if IFI is to be discontinued in RIIO-ED1. A further consideration is that while IFI extends to projects at the 'research' end of the spectrum, the focus for LCN Fund projects is towards 'deployment'. The wider expectations of networks are likely to increase as dependency on electricity as the primary source for home heating and private transport increases as part of the low carbon transition. Moreover, since low carbon transition will increase electricity prices, innovation in improving general network efficiency will be important in containing increases in costs, helping the overall costs of low carbon transition. We believe that there is therefore a

case for allowing the scope of NIA (if not the NIC) to extend to research orientated projects in areas of innovation more generally associated with network efficiency and performance.