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11 January 2012

Dear Sam

Low Carbon Networks Fund: Two Year Review

I welcome the opportunity to contribute to the Two Year Review of the Low Carbon Networks Fund (LCN Fund). Our view is that the LCN Fund has had a positive impact on detailing the challenges for distribution network operators in the transition to a low carbon economy, understanding how the challenges will manifest into network problems and considering the potential solutions.

To date, the LCN Fund has been well received by the distribution network operators and other industry parties and I have a few comments, based on our experience using of the LCN Fund. My main comment is we would like to see the size and use of the discretionary funding element revised so that additional funds are made available under the First Tier of the LCN Fund for the development of First and Second Tier projects and the delivery of First Tier projects. I have also made specific comments on the questions raised in the consultation letter in the attached Appendix 1.

Please note that that third project in the table in Appendix Two: Summary of First Tier Projects registered has been incorrectly identified as an ENWL project, and the Low Voltage Network Solutions project has not been identified as registered by ENWL.

Please do not hesitate to contact me if you have questions regarding my comments.

Yours sincerely,

Sarah Walls
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Date: 2012.01.11 18:06:15

Sarah Walls
Head of Economic Regulation

Appendix 1 – Consultation Questions

Below are specific responses to the questions raised in the consultation:

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?*

It is too early to draw any conclusions from the in-flight First and Second Tier projects launched by the DNOs as they have yet to deliver substantial outcomes. But it appears that there has not been as much commercial innovation as compared with technical and operating regime innovation. This does not seem to be a result of the evaluation criteria, it may be the result of a combination of factors for example difficulty in delivering commercial innovation within a common methodology framework, the requirement to apply for derogations, little direct involvement of the end customers etc.

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

The current criteria do not appear to hinder the development of smart grids, but I do note that the future Network Innovation Competition should be better able to deal with smart grid developments as it will facilitate the strengthening of the commercial and technical relationships across network operators at distribution and transmission levels.

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.*

The recent LCN Fund Conference, held in July 2011, highlighted that the current level of information sharing can easily fill a two day conference. Dissemination should also arguably occur beyond the conference attendees. Therefore the means of dissemination needs to change as the volume of information grows from the increasing number of registered Low Carbon Network projects. So far, we have been unable to compare and contrast the differing dissemination techniques applied by the DNOs to determine which has been the most effective dissemination approach. We suggest a best practise dissemination approach is defined for the combined NIC once there has been sufficient evidence that points to a best practice approach. In addition, we would support the development of a centralised register that links to the repository of the information generated as part of the every Low Carbon Network funded project.

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.*

The consultation letter highlights network monitoring as a potential area of duplication. Without further analysis of the methods and equipment used we could not say whether there is actual duplication. For example, there are significant differences in the type of LV monitoring and data gathering being deployed within the WPD Low Voltage NetworkTemplates project and our Low Voltage Networks Solutions project and we have taken the time to understand these differences. This check is the responsibility of the DNO in registering a First Tier project as the use of a specific evaluation criterion handles the potential duplication issue. For Second Tier projects, the Expert Panel arguably does this implicitly as part of its evaluation process, but if Ofgem is concerned about potential duplication the same First Tier duplication criterion could be explicitly applied in the Second Tier evaluation process.

Beyond this, we should expect that a certain degree of duplication will be necessary and useful for the development of each DNO's capabilities ie every DNO will need to understand LV monitoring in the context of its network topology, and of the evolution of its existing data and data systems, as well as approving new equipment for its network.

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.*

We see merit in DNOs doing their own monitoring trials, but that the outcomes from the monitoring trials to be accessible centrally. We cannot assume that customer behaviour is identical in each network area or even within a network area eg DECC's sub-national electricity statistics already provide evidence of variation in annual energy demand for domestic single-rate, domestic multi-rate and non-domestic customers at local authority level and below. There are likely to be even greater variations in peak demand and voltage profile, particularly as low-voltage monitoring reflects the statistics of relatively small customer numbers per low-voltage feeder and distribution transformer. Additionally, we must not forget that the individual trials will evaluate the monitoring equipment and the monitoring approach as well as the customers' aggregated demand connected to the circuits being monitored, which will develop skills and experience within the DNOs as well as building a valuable dataset for analysis.

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 current evaluation process for Second Tier projects appears to work for small to medium sized projects (ie nominally less than £15 million). The restriction on the length of submission materials (and hence the level of detail that can be made available) appears to hinder the current process for evaluating larger more complex projects. A DNO could submit multiple standalone projects but each submission could include information on how they could be combined into a larger project. This could be evaluated as part of the amended evaluation approach (see comments on the evaluation phase in question 10 below). Alternatively, if greater level of detail is required, then this will likely need a change to the submission paperwork and possibly the evaluation process. If these are considered necessary for this review, we should consider developing a twin track approach dependent upon the complexity and/ or size of the project, so that larger and more complex projects are given the necessary evaluation time.

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

We have found that the website, although a good idea, has not delivered the collaboration effect it promised. The majority of our collaborative partners have been developed through existing supplier and industry relationships (eg Energy Innovation Centre) or from developing relationships from attendance at industry conferences / seminars. We note that the LCN Fund Annual Conference has proved a useful vehicle for sharing ideas and information between DNOs and other industry parties and developing those collaborative relationships for new Low Carbon Network projects.

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

When preparing our 2011 Second Tier Project Submission, Capacity to Customers (C_2C), we set out to quantify the carbon benefits of the project and its potential impact, at the level of the Trial and if the C_2C Solution were rolled out across GB.

We identified the three key carbon impacts of the C_2C Project as:

1. Asset carbon (based on differences in network assets installed),
2. Losses carbon (based on differences in distribution losses per year at a specified grid carbon intensity and level of network loading);
3. Facilitated emissions reductions by customers due to quicker release of network capacity (based on differences in emissions associated with transport, heating and electricity generation when these are facilitated by the distribution networks compared to the current alternative).

We felt it necessary to provide a simple approach to assessing the carbon impact of the C_2C Project to support the proposal, rather than just providing a qualitative account. This was important for our Project in particular, since C_2C has the potential to reduce asset carbon and customers' emissions, but can increase losses carbon in certain circumstances and timescales. Thus we needed to demonstrate the net carbon benefit of the project.

The methodology applied was based upon and utilised the techniques within the published "Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard", and developed with the assistance of the Tyndall Centre for Climate Change Research.

The methodology sections within the Submission materials describe how these are quantified, but in essence the first two elements relate to the distribution network's carbon emissions, and can be linked to the 'Scopes' defined in the World Resources Institute's 2004 publication "The Greenhouse Gas (GHG) Protocol: A Corporate Accounting and Reporting Standard".

The asset carbon section includes direct or Scope 1 carbon emissions related to the operational activities including installation and transport provided by Electricity North West, plus indirect or Scope 3 carbon emissions related to the embodied energy in assets and their delivery to the company. Overall these asset-related emissions are thus on a 'cradle to site' basis. Although network losses are not purchased or owned by the distribution networks, we consider losses carbon in the category of electricity indirect emissions, or Scope 2.

However beyond the changes in network emissions, the key driver for the C_2C Method is that it is expected to release network capacity more quickly and cost-effectively than the most efficient method currently in use. It was expected to allow customers to connect low-carbon load (eg electric vehicles and heat pumps) or renewable generation (eg SSEG and larger installations like onshore wind) without delays caused by a need for traditional asset-based reinforcement of high voltage distribution networks. So an estimate of these facilitated emissions is also made, although they are outside the Scopes defined in the GHG Protocol.

Because of their differing natures, the impacts on network emissions (assets and losses) were presented separately from impacts on facilitated emissions.

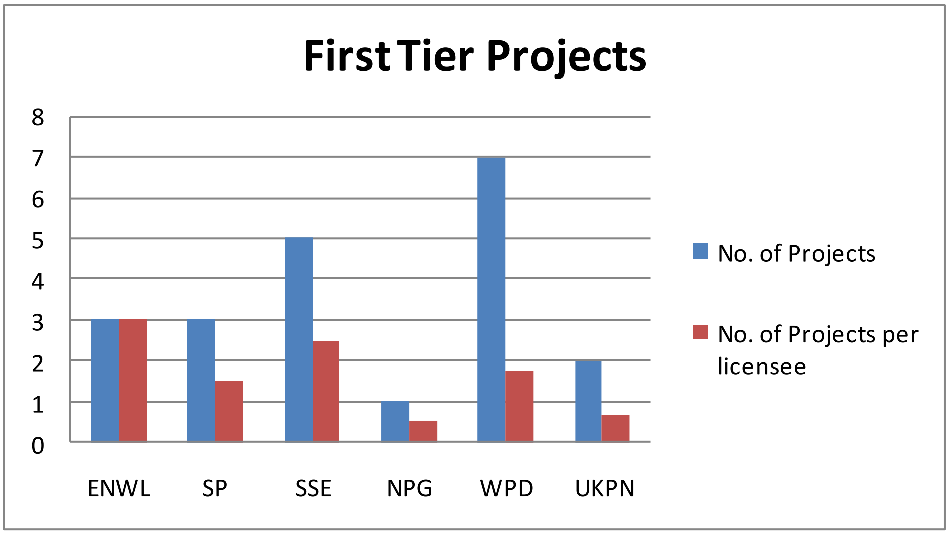
We suggest that it can be useful to quantify carbon impacts (relative to a Base Case) to demonstrate that the net carbon benefit from a Trial and roll-out to GB would be positive (if this could be in doubt for the particular type of Project). It could then be useful to understand the scale of this benefit in tCO2e and its timescale. These points clearly link to the evaluation criteria of accelerating transition to a low-carbon economy.

However conversion of tCO2e impacts to financial impacts for comparison with Project costs (using the government's prevailing guidance on carbon valuation for example) would not provide worthwhile additional information to the Expert Panel. This aspect significantly extends and complicates the calculations, and brings in questions of who bears the costs of carbon impacts and when for example it is difficult to make fair comparisons between Project Costs and carbon valuations from different types of carbon impacts.

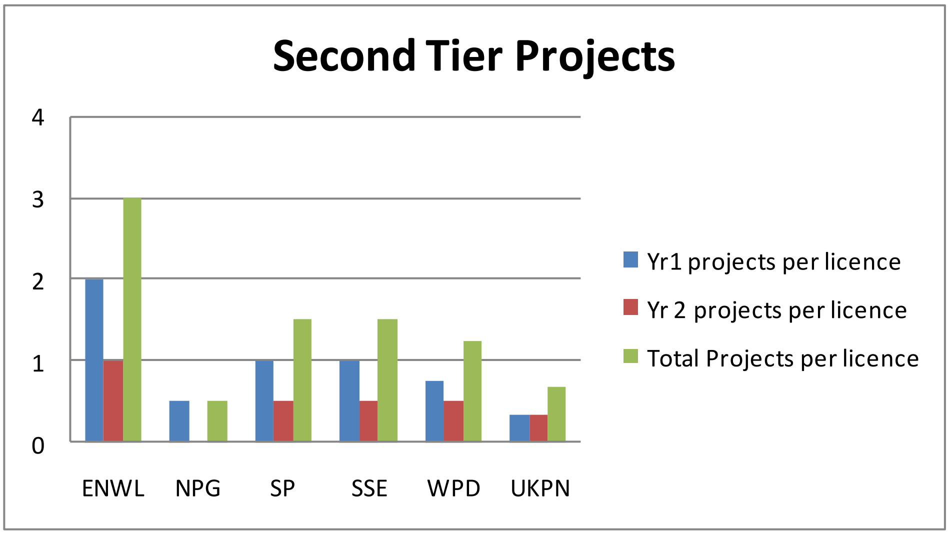
Whatever is decided on the inclusion of a methodology for next year's submission and evaluation processes, any methodology should be road-tested before being applied, possibly using this year's submissions.

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

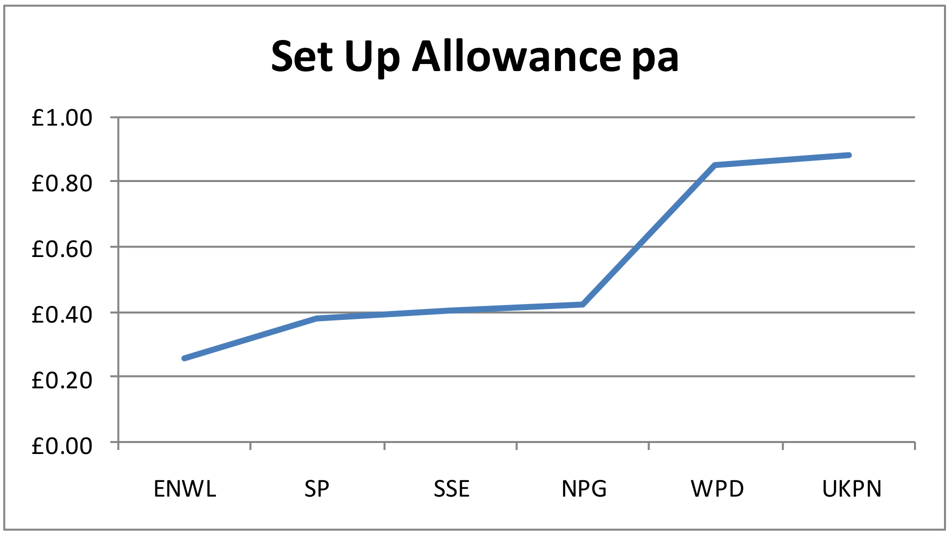
In both years of operation of the Low Carbon Networks Fund we have consistently utilised the Low Carbon Networks Fund to develop our understanding and enhance our knowledge of the role that we will play in the transition to the low carbon economy. This approach complements our stance in utilising IFI (Innovation Funding Incentive) funds to help develop the business through the instigation and implementation of R&D projects. The charts below show that on a per licence basis we have consistently developed and submitted more T1 and T2



projects to date than other DNO organisations.



But this has been at our own expense as we have consumed more than the allowable set-up funds available within the First Tier allowance each year. The chart below compares the allowances across the DNO organisations, with Electricity North West being the smallest allowance due to being a single licensee, yet we have so far submitted more projects.



We wish to continue to develop our knowledge and look towards Ofgem to increase the percentage allowance for set-up costs as part of this Two Year Review so that we can continue to develop innovative projects and trials. This proposed change could be included as part of a re-evaluation of the size and use the discretionary funding, so that the size of the T1 allowance for First Tier Projects is not subsequently diminished (see comments to question 11 below). In the evaluation of the T1 allowance we ask Ofgem to consider allowing some element of roll-over between years for T1 projects to enhance the flexibility of the scheme.

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?*

In essence, this happened within this year's Second Tier evaluation phase, albeit in an ad-hoc manner rather than in a formal way, detailed within the LCN Fund Governance Document. This seemed appropriate as the scope changes proposed by Electricity North West (developed directly to address the comments received from the Expert Panel and the consultants) were minor and involved little re-work of the Submission materials. Therefore Ofgem and the Expert Panel have developed a process for minor scope changes that could easily be documented in the LCN Fund Governance Document and applied from next year.

If it is considered necessary to allow major changes to be allowed mid-flight in the evaluation process then Ofgem and the industry should reconsider the whole process and the timescales. It would be inappropriate to allow significant re-working of a project within the evaluation phase currently as significant scope change would require an extension to the evaluation phase, which would run up against the timeline for the publication of indicative DUoS tariffs at the end of December each year. This may be something that is considered as part of the development of the Network Innovation Competition.

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

We have previously argued that the majority of the discretionary funding has been inappropriately earmarked to reward DNOs for the delivery of outstanding projects. This element of the discretionary funding should be made available for the development and delivery of projects. Ofgem should have gained sufficient comfort now that the drive for DNOs in utilising the Low Carbon Networks Fund to undertake trials has not been to receive discretionary funding and the early signs are that DNOs are using the Low Carbon Networks Fund to implement a range of very valuable projects. I believe most DNOs would be happy to have more funds available for the development and delivery of projects and trials in preference to the opportunity to apply for discretionary funding after the closure of low carbon projects.

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 DPCR5 Final Proposals.

I have no comments on this question. The topic of this question is more relevant for the RIIO-ED1 discussion rather than this Two Year Review.

We would appreciate comments on these areas and any other comments you have on ways to enhance the effectiveness of the LCN Fund process.

I note that there has yet to be any collaborative effort between DNO organisations in the submission of Second Tier projects. The current drafting of the LCN Fund Governance Document specifies the selection of a Lead DNO to steer the submission through the evaluation phases. This drafting may be having an adverse effect on any proposed collaboration.

The current LCN Fund Governance Document and associated submission paperwork refer to the Low Carbon Transition Plan. DECC has recently published its Carbon Plan, so there is a need to check whether the reference to the LCTP is still relevant or should be realigned to the Carbon Plan.