

22nd May 2015

Nisha Doshi Ofgem 9 Millbank London SW1P 3GE

Ref. Consultation on the Successful Delivery Reward Applications for Low Carbon Networks Fund (LCNF) projects

Dear Nisha,

Smarter Grid Solutions Ltd (SGS) welcomes the opportunity to respond to Ofgem's consultation and provide additional evidence, as a Project Partner in both the Low Carbon London (LCL) and Flexible Plug Play Low Carbon Networks (FPP) projects, in support of UK Power Networks Successful Delivery Reward (SDR) application.

As you will probably be aware, SGS provides a range of Active Network Management (ANM) products, tools and services to help electricity network operators design and deliver 'non-wires' alternatives for the management of grid constraints. While this approach has clear financial benefits to customers, and is now being rolled out by a number of DNOs, it was a relatively new concept and emerging technology when LCNF was first created. As a direct result of these projects ANM has been transformed into one of the leading smart solutions for the connection of Distributed Energy Resources, and management of grid constraints, without the need for network reinforcement. Without the vision of Ofgem to create LCNF, and the endeavour of UK Power Networks to take on these ambitious flagship projects, the industry would not be in the position it is today.

When considering whether these projects should be awarded a SDR it is worth noting the context of these projects when they started out. LCL was a first year LCNF project and was extremely ambitious in its scale and complexity. It set out to be flagship project for the UK investigating a very broad range of emerging challenges presented by the transition to a low carbon economy. As a first year project it could not benefit from earlier project learning and many of the now well-established LCNF and Network Innovation Competition (NIC) guidelines and documentation. Despite all of this, LCL delivered a significant amount of learning for the industry, leading to tangible benefits for customers. This was achieved, within budget and time, through established project management processes and procedures.. The quality of the



output can be clearly seen in the very accessible and comprehensive range of learning reports, targeted at the various stakeholders.

We would particularly commend UK Power Networks on the collaborative approach they took to managing LCL. All project partners signed the same collaboration agreement, had full visibility of the entire programme and worked together as equals throughout. The inclusive approach to managing the project was enlightening, constructive and uncommon within the industry but one that really enabled the project to be such a success.

FPP was a second year LCNF project with a much tighter defined scope and group of partners. FPP focused on the proposition of ANM; to deliver more cost effective and timely connections to customers. It built on prior work and innovation mechanisms (SSEPD's Orkney Registered Power Zone) and applied the same approaches to a broader range of network problems, distributed generation technologies and other smart devices. What with significant challenges for the industry in enabling cost effective connections for customers, FPP was a practical project to innovate and prove the benefit of ANM in managed connections to all stakeholders involved. As a consequence, various DNOs are now rolling out managed connections to distributed generation customers; this would not be possible had this project not been funded and allowed to explore ANM fully.

The FPP project delivered over and above expectations in the quality of the results and was delivered in an efficient manner, keeping within budget and to programme Our experience of FPP was of a very well run and coordinated project with exceptional external customer engagement leading to recognition of the results amongst the wider DNO community.

Although not part of the consultation it is worth noting the impact of these projects on our business. We recognise that LCNF was not created to have an economic impact but it has. Over the period of these projects our business has grown from less than 10 people to around 60. Most of these are highly skilled power systems, software and control systems experts that are now helping DNOs to roll-out smart solutions delivering tangible benefits to customers. We have recruited from other industries helping to transfer skills and replace an aging workforce. We have now established a base in North America and are exporting the technologies and concepts developed here in the UK. This has helped establish the UK smart grid industry as a pioneering country in this area, resulting in others across the world seeking knowledge and understanding from the innovation and solutions that have been developed to date.

The original concept of LCNF was for a small number of flagship projects that would set the UK apart and deliver real benefits to customers. Both LCL and FPP have achieved that and we are proud to have been part of the team to deliver them. We hope that UK Power Networks receive the credit that they deserve for both of these projects.

Best regards,

Alan Gooding

Commercial Director and Co-Founder

Question 1: Do you consider that the SDRCs have been delivered to a quality expected from the Full Submission, in a timely and cost effective manner?

Criteria	LCL	FPP
Do you consider that the SDRCs have been delivered to a quality expected from the Full Submission, in a timely and cost effective manner?	Yes. LCL was an incredibly ambitious flagship project that looked at a wide range of challenges and technologies. As a first year project it did not have the benefit of experience and learning of later year projects. Nevertheless, the project delivered a truly flagship project on time, to budget and ultimately with savings to customers.	Yes. FPP has actually overdelivered on its original ambition in terms of customers engaged, savings delivered and customers connected. FPP has been so successful that it is already being rolled out by UK Power Networks to other customers and been adopted more widely by other DNOs.
Did the Project meet the SDRCs to at least the quality expected from the project deliverables supplied in the Full Submission and Project Direction, and is this supported by sufficient evidence in the SDR application?	Yes. The SDRCs, how they were met and the evidence of their satisfactory completion is well set out in the application.	Yes. The SDRCs, how they were met and the evidence of their satisfactory completion is well set out in the application.
Were the SDRCs delivered in a timely manner, as expected from the target deadlines given in the Project Direction?	Yes. LCL was a large and multi-faceted project involving a wide number of partners and stakeholders. The project had one change proposal agreed with Ofgem reflecting a change in scope as a result of a delay in the smart meter roll-out, clearly beyond the control of UKPN. Despite this the SDRCs were met in full and on time.	Yes. The FPP project had one minor change proposal that was agreed with Ofgem as a result of circumstances well beyond their control. In reality this was a very minor change and every other deliverable was delivered in full and on time.
Were the project costs for meeting the SDRCs managed to ensure delivery within the project budget, and were efficient prices obtained for significant project costs (above 5 per cent of the whole project budget)?	Yes. For example, the change proposal that was agreed with Ofgem was developed in full consultation with the project partners. We all took the opportunity to consider how costs could be reduced without detriment to the quality of the project outputs This is on top of	Yes. The project delivered within budget and sought to identify opportunities to reduce costs where possible. As a project partner we saw clear benefits from being involved in the project and contributed significant resources as a partner contribution to

delivered well within budget.

Question 2: Do you consider the project has been well-managed and has implemented best available principles, processes and practices for managing change and risk?

Criteria	LCL	FPP
Do you consider the project has been well-managed and has implemented best available principles, processes and practices for managing change and risk?	Yes. LCL took a unique collaborative approach to the overall project. They adopted well-established project and programme management practices Partners were actively engaged throughout and took on key project management roles, enabling best practice to be shared effectively. We have not experienced this approach elsewhere and we believe it set LCL apart as a project. This approach encouraged a proactive and transparent approach to the management of issues and risk and ensured that everyone in the team participated in managing and mitigating them.	Yes. FPP built upon the structures and processes developed for LCL but streamlined the project structure to reflect the smaller scale and reduced complexity of the project. Quarterly partner steering groups (similar to LCL) were used to help manage the project, identify issues and risks between partners. This forum was very successful at ensuring knowledge dissemination between all project partners.
Were project risks and uncertainties pre-emptively identified and managed adequately by the network company?	Yes. A comprehensive risk, issues and actions log was kept for each workstream, and as a project overall. Key risks and mitigating actions were escalated through the programme management structures and ultimately to the Project Partner Steering Group, chaired by the UK Power Networks CEO, for swift and effective resolution.	Yes. The team worked closely with its partners and suppliers to identify issues early and implement practical mitigating actions to ensure that the project metrics (time, cost and quality) were all met.

Were any mitigation measures communicated and implemented effectively?	Yes. In a project of this scale there were a wide variety of technical and commercial risks and these were managed with full visibility throughout the project.	Yes. The project team handled project risks and uncertainty extremely well by working closely with project partners to identify cost effective and practical solutions to the challenges that emerged throughout the project.
Did the risk identification and management process allow for the consideration and implementation of opportunities?	Yes. UK Power Networks and the project partners used this risk and change management processes within the project to ensure the project delivered fully on its project direction.	Yes. UK Power Networks and the project partners used this risk and change management processes within the project to ensure the project delivered fully on its project direction.
If the projects were adversely affected by change or uncertainty which did not require a change proposal, do you consider this to have been due to circumstances within the company's control?	No. Despite the scale and complexity of the project any material changes to the project were as a result of external factors. UK Power Networks and the wider team of project partners worked together to ensure no adverse impact from any changes that we could control.	No. The project was not adversely affected by any change or uncertainty.

Question 3: Do you consider that the change proposal process was managed well by the network company?

Criteria	LCL	FPP
Do you consider that the change proposal process was managed well by the network company?	Yes. The proposed changes were well understood, articulated and presented to all project partners. The project structure enabled proposed changes to be raised, discussed and agreed between all project partners in a transparent and effective manner. to	Yes. The project had minimal changes and those that were required were transparent and clearly a result of developments outside the control of UK Power Networks. The changes agreed were practical and cost effective ensuring that the overall project was delivered successfully.
Were change proposal requests identified and brought to light in a timely manner?	Yes.	Yes.

For a material change requests, were all practicable measures implemented to prevent a change proposal?	Yes. Most projects go through changes and therefore it is no surprise that projects of the size and scale of LCL did too. These were all handled professionally, designed to ensure an enhanced overall result from the project and protect the customer. In the case of LCL the changes ultimately reduced the cost to the customer while delivering on time and to the quality originally intended.	Yes.
Was suitable justification for proposals (including how the change was in the best interests of customers) provided in the change requests?	Yes.	Yes.
Did the project perform well against what was originally intended?	Yes. LCL delivered a comprehensive suite of learning reports for the industry on a very broad range of topics. These included some significant firsts in the area of time of use tariffs and demand response. The project was designed to be held up as a true UK smart grid flagship project and it has achieved that and more. The project has resulted in a number of technologies being proven for the long term benefit of the customer and specific savings have already been identified within UK Power Networks RIIO-ED1 plan.	Yes. The project was exceptionally well managed and has over-delivered on its original promise. The learning reports are of the highest quality, the content is rich and well-presented and this is reflected in UK Power Networks and other DNOs now rolling out managed connections for DG customers more widely.