Safer, Stronger, Smarter Networks

Neil Copeland
Ofgem
107 West Regent Street
3rd Floor
Cornerstone
Glasgow
G2 2BA

5 February 2016

Dear Neil,

Reviewing the benefits of the LCN Fund and the governance of the Network Innovation Competition and the Network Innovation Allowance

On behalf of EA Technology, I am pleased to be able to respond to your consultation letter, dated 17 December 2015.

Background

EA Technology was established in the mid-1960s as the UK Electricity Supply Industry's Research Centre, specialising in the Distribution and Use of Electricity. We are today an independent employee-owned SME[1] and have remained focussed on supplying innovative solutions to the Distribution and Supply sectors of the energy supply chain, within the UK and overseas. In recent years we have been heavily involved in projects funded by the Low Carbon Networks (LCN) Fund, often focussing on helping DNO(s) get the most from implementing the outputs into their Business-as-Usual activities.

We were a partner in Northern Powergrid's Customer-Led Network Revolution project (2010 competition), we are a partner in SSEPD's New Thames Valley Vision (2011 competition), and following the 2012 competition we are the only non-DNO running a Tier 2 project via Innovation Squared – Electric Vehicles (known publicly as "My Electric Avenue"), a project now in the closing stages. We aim to deliver high value-add solutions to our customers, to the countries and regions we operate within, and we are not afraid to push boundaries in order to do so. This is particularly relevant to our role in My Electric Avenue, where we proactively tested ways that non-DNOs can get involved in LCN Fund projects. This gave us a unique insight into both the opportunities and the challenges posed by the structure of this funding mechanism.

Questions Raised

Question 1: Should we change the NIC and NIA criteria? If so, how and why?

EA Technology broadly supports the NIC and NIA award criteria, with the primary focus on returning value to customers. Our only concern relates to an apparent focus on relatively short term timescales for evaluation of potential benefit. This appears to encourage higher Technology Readiness Level (TRL) projects that involve significant capital outlay, as opposed to lower TRL projects with greater emphasis on development. We would like to see greater recognition of long term benefits (including the reduction of technical risk) in the NIA and NIC criteria, as we believe this would encourage more innovative thinking.

[1] EA Technology Ltd income for FY13 was £21.9m, £417k EBIT and 225 employees.

EA Technology Limited
Capenhurst Technology Park
Capenhurst, Chester UK
CH1 6ES

t +44 (0) 151 339 4181
f +44 (0) 151 347 2404
e sales@eatechnology.com

Question 2: Should we give more of an indication of where we consider innovation is required or is that inappropriate?

Some indication of where Ofgem believes that innovation would be most likely to return value to customers would be helpful. This would encourage alignment between GB energy policy and network innovation activity. However, such indication should not be used as an obligatory road-map for innovation in the sector and should not form part of the bid evaluation criteria. Proposed projects should continue to be evaluated and awarded (or otherwise) on their own merit.

Question 3: Should the focus of the NIC and NIA be broader and cover the broader energy system?

Yes. If the My Electric Avenue Project has shown us anything, it is that expertise, ideas and innovative technologies being developed outside the constraints of the physical energy network can have highly positive benefits for customers. With key areas of UK infrastructure becoming more inter-connected, broadening the focus of innovation projects to benefit the wider energy network is likely to be beneficial. Widening the focus of the NIC and NIA requirements would open the possibility for more 'out-of-the-box' thinking and solutions that could benefit customers through the interaction of multiple parties (e.g. industry, equipment manufacturers, TSO, DNO, etc.). This would also enable a wider range of partners to propose or participate in innovative projects.

However, we recognise that there are regulatory complexities and barriers to cross-sector innovation and we would like to see the NIC and NIA mechanisms used to address these issues. For example, encouragement of such interaction could form part of the guidance issued by Ofgem under Question 2, above.

Question 4: Can we improve the process for deciding on which projects to approve and if so, how?

The My Electric Avenue Project made a number of recommendations relating to the bid process for the LCN Fund Tier 2 Project as part of the SDRC 9.1.1 issued in February 2013. Rather than repeating the content of this report, we invite you to refer to the report located on the project website[2].

Question 5: How can we improve participation in NIC?

We recognise that Ofgem would like to see greater participation in NIC. The competitive process will only be effective if there are a good number of high quality, highly innovative bids. While the NIC process is, understandably, tailored towards the needs of regulated network operators, EA Technology believes it is essential that independent partners and third parties are actively involved in both bid development and project delivery. As an SME and independent service provider involved in the NIC process, we have a number of suggestions that we believe would encourage participation by innovative SMEs.

[2] http://myelectricavenue.info/sites/default/files/My_Electric_Avenue_%28I2EV%29_-_SDRC_9_1_Learning_from_bid_process_v_1_For_Issue_0.pdf

1. The bidding process

Our experience of leading a bid through the NIC process is that these projects carry materially significant non-recoverable costs. However, there does not appear to be any explicit mechanism by which a network operator can recover the costs of remunerating a specialist bid partner during the bid stage. Were this to be the case, it would provide evidence of appropriate engagement at the bid stage and provide much-needed technical reassurance to the bid assessors.

At the same time, we support Ofgem’s desire to ensure that project delivery partners are appointed through a transparent process in order to demonstrate value for money. Therefore, project delivery partners should not necessarily be rigidly specified at the bid stage and instead this appointment process should preferably form part of the project. In order to ensure high-quality project specification and delivery, the bid partner should not necessarily be precluded from subsequently being appointed as a delivery partner, should this be of benefit to the project.

We believe that guidance in accordance with the above would provide a strong incentive for greater partner participation in the bid process.

2. IP ownership and licensing

Although an NIC project may cover a partner’s costs to develop and deploy an innovation, the primary motivation for a partner may be to deploy the innovation many times over beyond the end of the project.

The default IP arrangements for NIC projects place foreground IP ownership solely with the project lead organisations, with an obligation to make the foreground IP freely available to GB network companies. While this default position appears reasonable (from the point of view of “maximising value to consumers”), it effectively prevents partners from extracting any future revenue whatsoever from the foreground IP – not only in GB but worldwide. This, perversely, incentivises partners to reduce the foreground IP that they contribute during the project to an absolute minimum, with a corresponding reduction in the value that can be returned to customers.

In earlier NIC projects, project lead organisations appear to have recognised this issue and have offered more flexible IP arrangements to enable project partners to share risk during the project and benefit from successful deployment subsequent to the project.

Unfortunately, Ofgem guidance on this matter has hardened the position of network operators, with a number of them refusing to offer any variation whatsoever from the default IP arrangements. This inflexibility is acting as a significant barrier to NIC participation, especially for lower TRL innovations.

We would like Ofgem to offer further guidance to encourage network operators to be more flexible in their negotiations for IP terms as we believe this will ultimately increase the benefit to both customers and partner organisations.

This view relating to the IP associated with innovation projects is also expanded upon in the earlier referenced My Electric Avenue report, SDRC 9.1.1 and also EA Technology’s response to the Informal Consultation on the NIC and NIA Governance on the 21^{st} November 2012.

3. The project delivery process

The project delivery plan is specified in detail as part of the bid process. The existing Governance Arrangements require any significant changes to this delivery plan to be subject to a formal Change Request. However, as has been observed by a number of NIC projects, the existing Change Request process is bureaucratic, slow and – to quote one independent assessor – "not fit for purpose". In this particular example, delays in the process exposed the partner to significant financial challenges, including cashflow issues and possible bankruptcy.

We recognise the need for a rigorous process to deal with material changes to a project's *outcome*, *overall budget* or *closing date* and for such changes we believe the existing process is appropriate. In a well-run project, such material changes to a project should be relatively rare.

However, innovative projects involve a degree of risk and uncertainty, especially with regard to the detailed delivery programme: by definition, the work has not been done before. It is good practice to adjust the planned activities in response to new learning that emerges during the project delivery, in order to ensure that the desired outcomes can still be met.

We believe that changes like these should be exempted from the formal Change Request process and instead simply seen as good project management. Such changes may include interim delivery milestones as well as reallocation between budget categories within the project. We accept that there should be formal reporting of such changes, but any such changes should be accepted by default to ensure that the project delivery remains on track and is not placed at additional risk.

We recognise that this is a challenging area for a regulator that is tasked with ensuring value for money at all times. We have experienced similar challenges with other forms of regulated funding and we have found the current process operated by InnovateUK (on behalf of DECC) to be very efficient and effective. We suggest that this process could form the basis of a future revision to the Governance Arrangements.

4. Reward criteria and risk

The existing funding arrangements cover 90% of the costs of the project, with the remaining 10% retained subject to successful delivery against the project SDRCs. The assessment of successful delivery is made several months after project completion, with the remaining funds released at some point after that. In addition, there may be a discretionary award to projects some three years following the application for such a reward.

EA Technology strongly supports the principle of reward for successful delivery. However, as an SME involved in innovative projects, we believe that there are two issues in the reward process that currently discourage NIC participation by partners.

The first concerns the risk of "failure". Low TRL projects inherently have a risk of "failure", in that the technology may not work as expected. At the project bid stage, it is not known for certain whether or not the technology will work. Therefore, if the reward criteria depend solely on successful deployment, there is a considerable risk that such criteria will not be met. We therefore believe that all project bids (especially those with low TRL) should include SDRCs that recognise the possibility that the technology may not work. Bid assessors should look favourably upon such provision, because such outcomes always result in valuable learning that should be recognised and rewarded.

We believe that such open assessment of technical risk will encourage projects with a wider range of TRLs, together with more explicit definition of SDRCs.

The second concerns reward payment timescales. The existing reward timescales are not compatible with typical SME cashflow requirements. Typically, SMEs need to recover project costs within 3 months of project completion (where there is no potential future reward). Alternatively, where there are potential future rewards then cost of delivery would be recovered over a timescale commensurate with the potential reward. Typically, this would be within the current financial year.

We would welcome further dialogue with Ofgem to develop a payment framework that does not discourage SMEs from participation.

Question 6: Please comment on your experiences if you have worked with licensees when implementing NIC and NIA projects or when transferring innovation into business as usual.

EA Technology's experiences of working with most GB network operators across a wide range of innovation projects have been very good. Our participation has involved working across all areas of the Projects, from conception, implementation and translation into business as usual (BAU). We have witnessed first-hand how the LCNF and subsequently NIA/NIC has allowed the network operators to prepare for a Low Carbon future and they are now greatly more able to cope with the challenges as a result.

We believe however that increased focus is required to embed the learning into everyday practice. Innovation projects should give greater prominence to wide scale adoption for successful solutions and practices. We suggest that network operators should be encouraged to use innovation funding for the initial stages of BAU roll-out to ensure projects have a lasting legacy and they are truly adopted. It should be recognised that this latter stage of an innovation project cannot be committed to at project inception – it is necessary to ensure the solution is fit for purpose first.

Question 7: Are there any other issues we and the independent evaluator should consider as part of the review?

We have noticed a strong cyclic trend in innovation project activity, linked to both financial years and price review periods. The DPRC5 price control period strongly endorsed technology innovation within the industry, with the DNOs and supporting companies establishing dedicated teams to deliver projects. With the transition from DPCR5 to RIIO-ED1, we observed the applications and scale of new innovation projects was markedly lower. This has created significant challenges in terms of securing continuity of resource and expertise, with some critical skills now lost to the industry. This will impact on the long term stability of the sector.

We would like to see greater emphasis on ensuring continuity of activity. For example, we would welcome the proposal by GDNOs to allow more flexibility in funding periods to allow the close-out activities of one project to build a bridge towards the next bid.

Question 8: To what extent do you consider the LCN Fund has succeeded?

The LCN Fund has been a highly successful initiative with wide reaching benefits to UK Plc and energy industry. GB DNOs have been encouraged to think 'outside the box' far more than they would have previously, prompting new technologies and working practices to be developed. While there have always been individual innovation champions within DNOs, we now observe much clearer corporate commitment to ensuring the success of such innovation.

However, EA Technology is of the opinion that the full benefits to the industry and the end customer from completed projects have not yet had time to be fully realised. For example, the full value from implementation of the learning from the My Electric Avenue project will continue to accrue over many years beyond the end of the project. We believe it is important to fully recognise this future benefit when assessing the extent to which the LCN Fund has succeeded.

Question 9: To what extent do we need to continue incentivising innovation by the DNOs?

We believe that innovation is key to ensuring the future electricity system is resilient, while delivering against the UK's carbon targets at a fair cost for consumers. However, we recognise that innovation – and more importantly implementation of innovation as BAU – is not yet fully established within network businesses.

RIIO-ED1 goes a long way towards embedding the rewards from successful innovation into business as usual. However, the historical absence of this mechanism means that innovation is not yet fully integrated into DNO business plans and processes. We therefore feel strongly that innovation still needs to be incentivised until this position has been reached.

Question 10: Are there any other issues we need to consider as part of the LCN Fund benefits review?

EA Technology is in a unique position to discuss the LCN Fund innovation projects, having been involved in multiple projects as a supplier, delivery partner and Project Lead. We would welcome the opportunity to expand upon the points covered briefly in this consultation response, or any of the reports delivered as part of the My Electric Avenue Project. If you would like us to expand on any specific areas, please contact Dave A Roberts, Director of Smart Interventions at EA Technology.

I hope the above will be useful in your evaluation of the area but please do not hesitate to contact me if you would like to discuss anything covered in further detail.

Yours sincerely

Dr Mike Lees
Group Technical Director

t. +44 (0) 151 347 2309
e. mike.lees@eatechnology.com