

## **The Network Innovation Review**

### **Consultation response to Ofgem by Smarter Grid Solutions Ltd.**

6<sup>th</sup> February 2017

Smarter Grid Solutions is a developer and implementer of control software for active power networks. Our products and services are targeted at smart, efficient integration and operation of distributed generation (DG) and distributed energy resources (DER) in power systems to create value for multiple stakeholders in each power system timeframe from investment planning to real time control. We also provide independent consultancy on a broader range of topics in the power sector in the UK and internationally.

Smarter Grid Solutions has spent nearly fifteen ten years researching, developing, deploying and proving our approach to managing flexible, smart grids. We are recognised as technical experts and thought leaders in the distributed energy integration and smart grid domain and have worked with and learned from electricity distribution companies, regulatory authorities, university research teams, generation developers, SCADA/DMS suppliers, grid edge device manufacturers and many others.

We wholeheartedly support Ofgem in the review of Network Innovation and view such a review at this point in the networks innovation 'cycle' as both desirable and necessary in terms of sector 'health' and consumer interest. We have witnessed significant progress of the DNOs' innovation programmes but share the disappointment of Ofgem in the lack of transition of this valuable learning into 'Business as Usual', consumer and customer benefitting programmes. We believe that increasing third-party involvement in NIC projects will provide diversity and drive behind innovation strategies and programmes and may lead to more sustained implementation and growth in innovative technologies and business models to push forward the smart, flexible energy system agenda.

We appreciate the reasoning behind reducing the available funding pot based on historical applications for funding. However, we believe that the proposals to increase third-party participation in the bid process may increase the applications and potential value of funding so retaining the existing funding pot might be prudent for now. We suggest a 'minded to'

position on reduction of the overall NIC funding pot could be introduced and then a review of the other changes taken over the coming 2-3 years before the proposed reduction is implemented fully.

Finally, we support the proposal to publish a plain-English guide to IP rights and believe that this will open up a new level of dialogue in this area and facilitate deeper exploration and action on full commercial exploitation of innovation programme IP (background, foreground and jointly held) and business as usual implementation.

We welcome the opportunity to discuss any aspect of our response further.

A handwritten signature in blue ink, appearing to read 'Gault', is positioned above a horizontal blue line.

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## RESPONSES TO SPECIFIC QUESTIONS

### 3 PROPOSALS FOR DELIVERING GREATER VALUE FOR MONEY

#### 3.1 What are your views on our proposals to introduce a requirement for the network companies to jointly develop an industry-wide innovation strategy?

- If you agree, should companies retain their own strategies, and in addition should there be a single system strategy, or one for gas and another for electricity?
  - How often should the strategy be updated?
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- We believe that there should be a coherent, multiple-stakeholder focused, but separate, gas and electricity innovation strategies. That is the approach taken so far, and we don't believe this has had any detrimental effect on innovation strategies. Each of the separate gas and electricity strategies could usefully reference the other to facilitate cross-vector integration and coordination.
  - We believe that it makes sense to have a unified electricity system strategy to ensure all stakeholders are working towards the same goals in an increasingly coordinated manner, and to hopefully avoid duplication of innovation activities across network operators.
  - However, there are regional/locational issues which some DNOs may rightly prioritise in their innovation programmes e.g. the south west of England with high levels of PV connections and as a result, significant thermal and voltage issues requiring innovative solutions to deliver customer connections in a timely and cost efficient manner.
  - So, we think that an industry wide high level innovation strategy setting the overall goals is worthwhile – the resulting actions can then be addressed collectively or individually by the network companies in their own programmes. The regulator should maintain a role in scrutiny and challenge of the innovation strategies and in preventing repetitive or duplicate projects.
- We think the current approach to setting Innovation strategy via RIIO business plans works well and should be maintained. This allows the network companies to link Innovation spend, to spend in other parts of the business. **Updating the innovation strategies within a RIIO business plan period will also enable agility to emerging issues while maintaining long-term direction (as required for long life assets and nationally critical infrastructure).**

### **3.2 What are your views on our proposals to help facilitate increased involvement of third parties in the NIC via the network companies?**

- Increased involvement of third parties in the NIC process via network companies should be strongly encouraged. Allowing third parties to generate ideas, and put these forward to relevant network operators should increase the reach and impact of innovation in the electricity industry. Taking the third party projects further into fully third party led projects is also attractive as it may increase the scope, ambition and diversity of innovation projects but there could be challenges resulting from the level of engagement from a trial 'host' network company if that network company are not directly leading the project.
- We support the suggestion to "Raise the number of projects that network companies can put forward as full submission from two to four, where additional projects are led by third parties and result from the call for ideas."
- For collective vs individual calls we have no strong views. We believe that DNOs would prefer to run their own calls for Innovation projects to align the submitted ideas with individual innovation strategies. An inefficient outcome of this approach could occur where a single third party submitting similar project ideas to multiple DNOs with the hope of winning at least one out of six submissions. There may need to be some form of statement in the NIC governance which prevents this from occurring.

### **3.3 What are your views on providing direct access for third parties to the NIC?**

- We agree that there may be difficulties in transitioning from a third party innovation project to deployable solution where there is not a network company participating in the project or the project is conducted in 'lab conditions'. Demonstration of a technology in a lab environment is important in the earlier stage development of solutions and methods but inferior to trialling of a solution on a real network with real commercial and customer imperatives where a transition into 'business normal' is the ultimate target.
- Stand-alone third party projects could broaden the horizons of innovation funding and explore more radical solutions to network problems (and these more radical ideas are possibly more appropriately explored in lab environments). However, there are valid questions regarding the regulation and implementation of these solutions without the support of a network operator. Also the lead time from lab to customer is likely to be greater so this should be borne in mind in any balanced portfolio approach to innovation programmes.

- One could argue that this earlier stage of innovation is already carried out in academic and research institutes across the UK, therefore it may be that it is not required to be funded through the customers/regulators. However, the network companies should probably be incentivised to embrace earlier stage innovation better as part of a balanced innovation strategy.

### **3.4 What are your views on our proposals to remove the Successful Delivery Reward and the provision to recover Bid Preparation Costs?**

- Much work has been done to date (IFI, RPZ, LCNTF, NIA, and NIC) in encouraging network owners and operators to invest in innovation, and the results starting to roll-out for customer benefit. We would like to think that all network companies are convinced of the benefits of innovation, having invested their own and their customers money into large innovation programmes to date and so would view further future investment in innovation a wise use of shareholder funds. We would expect that more targeted and carefully planned innovation programmes would result from a greater financial contribution to projects in future.
- We agree that this is a good time to transition to a higher level of responsibility and buy-in from companies.
- It will also ensure that the business is more invested in taking innovation and learning from the project through to BAU given the initial investment.
- We are not convinced of the case for removing the recovery of bid costs from innovation programmes. While we acknowledge that this is an anomaly compared to other sectors we think that the same characteristics that make network operation a natural monopoly create some special reasons for innovation bid development support. The relatively high entry costs to network activities, the capital intensity and the fairly heavily structured, codified and regulated environment make fully competent innovation project cases difficult for new entrants to the sector. Perhaps rather than all bid development costs being recoverable, a fixed annual allowance to part-support network companies entering the wider market place and supporting a possibly greater number of bids could both diversify the number, type and source of innovation bids while containing the costs of bids and striving for leaner, better and more targeted bids.

## **4 PROPOSAL FOR FUTURE FUNDING LEVEL OF THE ELECTRICITY NIC**

### **4.1 What are your views on the rationale for reducing the level of electricity NIC funding pot?**

### **4.2 What are your views on the proposed funding level of the electricity NIC?**

- We can appreciate the reasoning behind reducing the available funding pot based on historical applications for funding. However, the proposals in Section 3 are looking to increase the number of applications (via third parties) and therefore this could mean that more funding is requested. There is a risk that the regulator may be changing too many of the dimensions of the innovation funding mechanisms at once. We wonder whether a 'minded to' position on reduction of the overall NIC funding pot could be introduced and then a review of the other changes taken over the coming 2-3 years before this reduction is implemented fully.
- Given the scale of change that is expected of DNOs at the moment i.e. the move towards a DSO role, and an increase in whole system flexibility and coordination, it would be more appropriate to leave funding levels as they are to address possible requirements for increased innovation activity to address these significant new areas.
- We would suggest keeping the £90 million for the remainder of ED1, with a view to reducing this in ED2 or else in 2020/21.

## **5 OTHER PROPOSALS FOR GOVERNANCE ARRANGEMENTS**

### **5.1 Question 1: Do you agree with our proposals to clarify the circumstances we do and do not expect change requests are submitted to us?**

- **If you agree, do you think our proposed draft explanation of material changes is clear?**
- **If you think alternative drafting would achieve this more effectively please provide this drafting.**
- Minimising the number of changes which must go through Change Requests is a positive change to the funding regulation. Often, change requests can be onerous and result in further delays to the project, which in turn can result in less value for money to the customer.

- The nature of innovation projects, is sometimes that things do not proceed as expected to, and the project must adapt in order to continue to deliver the project aims and objectives despite unforeseen circumstances.
- If project changes could be notified and decided more dynamically then the projects could maintain momentum and a degree of certainty while exploring the inevitable changes.
- We believe that change plans for projects should be shown to deliver 'at least as good as' value for money and relevant scope as the original project plans rather than a reduction in scope or value.

## **5.2 Do you have any feedback on our proposal to publish a plain English guide to our default intellectual property (IP) requirements?**

- We think this seems like a sensible approach to addressing IP issues.
- We have noted that some interesting discussions and avenues of exploration in exploitation of project results have been inhibited by misunderstanding of IP and the default arrangements. We believe that a plain English guide to IP will open up this area to explore full commercial exploitation of IP (background, foreground and jointly held) into business as usual.

## **5.3 Do you have any views on our proposals to improve the visibility of the NIA projects? What are your suggestions for a proportionate way to get assurance that the NIA is being used by network companies in an appropriate way?**

- We think it is fair and timely to carry out a review of completed NIA projects, to quantify which of them could now, or in future, be carried into normal business.
- Merging the reporting of NIC and NIA could provide efficiencies in the reporting and reviewing process for both network companies and the regulator and in keeping with an overall innovation strategy with large/small, early-stage/late-stage TRL status, DNO/third-party innovation subject to joined up review.
- Better sharing of data and results of NIC and NIA projects would be welcomed and could allow further developments after project completion by other parties.
- We believe there is a critical need to ensure better roll out of innovation projects in to Business as Usual. As reported by Ricardo, this has been a slow process and needs to be better incentivised or managed to ensure that customers who are paying for innovation projects, and reaping the benefits upon completion – not only in the project network, but in others across the UK.

#### **5.4 Do you have any comments on any of our other proposals?**

- No

