Electricity Network Innovation Competition Full Submission

Supplementary Answer Form

Project: Black Start from Distributed Energy Resources

Tick if this answer has been provided verbally: ☐

Project code	ESOEN01	Question Number	14
Question date	16th August 2018	Answer date	20th August 2018
Submission section question relates to			
Topic	Innovative		
Question	It is not clear that your proposal to 'develop' and 'demonstrate' the proposed method exceeds the commitment in your Black Start Strategy to 'explore' Black Start from distribution networks. Follow up from Question 2		
Notes on question	Excerpt from Strategy (as referenced in response) National Grid will continue to explore new provider technologies and innovative Restoration Approaches to improve the efficiency of the service. National Grid will continue its active engagement with both the Black Start Task Group and wider industry. This will include, but is not limited to: • Distributed Energy Resources: Generation embedded within the DNO networks has the potential to provide a restoration service, depending on the level at which it is embedded into the network and the ability to control restoration at this point. National Grid SOF had undertaken a piece of work to explore alternative methods of "Black Start from distribution networks3". This report also detailed the current challenges in place and National Grid is looking to further explore technical solutions to these and the commercial viability.		

Answer	The definition of 'explore' has not been explicitly defined in the Strategy or Licence Conditions, but any definition would be dependent on the scale and complexity of the proposed outcome. For example, the exploration of a solution that fits within current operability frameworks (e.g. a single large embedded generator) could involve ESO unilaterally adjusting current contractual, technical and regulatory templates to suit. However, when a wholesale and systematically new approach is being contemplated, exploration can only go so far before an industry-wide collaborative process is required to develop and demonstrate a solution. Our response to Question 15 outlines why our proposed approach falls in the latter category. Therefore, we see the 'exploration' of this approach to involve: • Clearly outlining the problem • Engaging with industry to get consensus on the viability of the approach, and gauge interest and appetite for involvement • Performing an initial Cost Benefit Analysis to indicate whether the high-level approach would deliver value • Scoping the plan of work to run an open and collaborative development and demonstration programme Following this, the final two stages would be: • **Development:** working with industry stakeholders to identify, prioritise and design the most efficient and economic solutions that work for all parties, and • **Demonstration:** showing that the prioritised approach works safely, efficiently and economically in practice, and solves the problem initially identified ESO, SPEN and TNEI have initially explored this concept, initially through the 2017 SOF report, in advance of preparing the Black Start from DER NIC submission, and finally through the full submission process. Our research, analysis, CBA and industry engagement has all confirmed that the approach is worth developing further. It has also been clearly identified that developing this concept into a viable alternate market is a complete departure from all current ways of working, and will require development and demonstration in a safe environment prior to deployment. In summary, we committed to explore the concept, and have done so. ESO believes that further investigation and development is required to design, test and prove the concept, before a final decision can be made on whether to and how to deploy the new approach. A safe, collaborative and transparent environment is required to do this, with the interest of the end consumer at the heart of it. ESO believes NIC funding is the most appropriate way to achieve this.
Attachments	