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	15
Question date	16 August 2018	Answer date	20 August 2018
Submission section question relates to	n/a		
Topic			
Question	In various documents you acknowledge the Grid Code places an obligation on the ESO to procure Black Start services. In your submission you say: The results of both simulations and real-world tests will be of immense value to industry and will have a profound impact in maintaining efficient and economical Black Start services in the medium- to long-term as the energy system decarbonises and decentralises. The implication of this statement is that in your view the current approach will not be economic and efficient in the future. Section 9 A of the Electricity Act places an obligation on licensees to "to develop and maintain an efficient, co-ordinated and economical system of electricity transmission". If this project is not funded please explain how you will discharge the obligations placed on you by Section 9A of the Act.		
Notes on question			
Answer	The obligations in both the Electricity Act and the Grid Code ensure that NGESO will procure Black Start Services that are economic and efficient to deliver. This is currently achieved via bilateral contracting with transmission-connected generation capable of meeting specific technical requirements. Services and subsequent contracts for restoration are put into place based on the understanding of the current market position and an assessment of whether this particular contract delivers value, against the economic and efficient criteria. In the CBA, the bid proposal outlines that the current procurement approach meets the economic and efficient criteria. The ESO recognises that in the future both the		

	current method of procurement, and the physical technology types of BS service providers will need to change to consider the electricity industry advancements over this time. Services continually need to evolve to meet changing requirements, and a change in the providers who can deliver the service. A good example of this is the work NGESO have undertaken to determine the technical requirements necessary for Black Start service provision from interconnectors. Technical studies of capability and the impact on the transmission network and subsequent energised assets have been carried out, enabling this type of provider to meet the requirements of Black Start providers. Similar work has been undertaken to enable individual large distribution embedded plants to be considered under the current framework and procurement processes. The ability to control, instruct and despatch both of these providers on the transmission network is already in existence and so the actions required to develop the service from this "new" technology focused on the assessment of the capability of the technology and its impact on restoration. The proposed NIC project aims to put in place a wholesale, systematic change which is system- and process-driven to enable contribution from and coordination of a far greater number of embedded providers. And it aims to achieve this at significant pace, ready for GB-wide rollout. For this to be successful, it requires involvement and real commitment from the entire industry, and it requires resource to be in place that are not currently aligned for System and Network Operators to deliver. To bring the wider industry on board, and commit time, resources and investment, there needs to be a clear demonstration of consumer value and market opportunity for this new approach. This cannot be developed and demonstrated by ESO alone, it needs a clearly defined collaborative and open process, which the NIC project will provide. As the project progresses, all partners and stakeholders will be committed to see the process through to a clear demonstration of consumer value that works for all parties involved. In this way, industry stakeholders will be confident enough that there will be a reasonable return on investment from the changes to equipment and systems that will be required for the new approach to work. Without the NIC funding the ESO will continue to further develop Black Start services and discharge its licence obligations for Black Start through the continued running of gas stations and the inclusion of large individual embedded generators. Further development in the area of smaller DERs may also occur, but this will be at a much smaller scale than proposed in this project. This will mean that small changes will be made to systems and processes to demonstrate value to others to encourage their participation and changes to their respective systems and processes, rather than the scale and speed of the collaborative wholesale new solution that could be facilitated through NIC funding. The NIC funding and approach allows for a collaborative partnership approach with clear accountabilities on all parties to demonstrate the value for the consumer rather than solely with the ESO under standard market developments.
Attachments	