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	71
Question date	2 Oct 2018	Answer date	4 Oct 2018
Submission section question relates to			
Topic			
Question	Given the expectation that the outputs of the project will be ready for BAU application, please explain why the Panel should have confidence that you have sufficiently considered the strategic needs for the Black Start compliant communications to relevant parties involved in the process.		
Notes on question			
Answer	**Electricity Industry Communications Resilience:** The strategic need for new or improved communications resilience across the electricity industry is a subject currently receiving significant attention. Most interest and discussion focuses on day-to-day issues like ESO and DNO visibility, forecasting, balancing, and network constraint management network. This project does not intend to duplicate or replace the work on communications that is ongoing in other forums but it does intend to inform the discussion on strategic needs from the resilience and restoration perspective, specifically in terms of what is required to facilitate DER-based, de-centralised re-energisation. **Communications Resilience for Black Start from DER:** Within the project there is work to be done in understanding the existing capabilities of current communications, and the resilience of associated processes, systems and organisational structures. Within the project we will specify the minimum functional requirements for operational telecoms between ESO, TOs, DSOs and DERs to create or contribute to a Power Island. We do not see a need for the project to develop new technology in this area. The required technologies are already available, but the questions to be answered are around what exactly is required, how best to utilise the current technologies and what it will cost.		

	Rather than developing a new communications technology, this project will test the organisational behaviours and the systems that the communications infrastructure supports, firstly through detailed analysis and review, then through our desktop exercises involving ESO, TO, DSO and DERs. The work will consider the functional needs of the organisations, as well as their systems, to enable swift implementation of the output specifications into business as usual, catering for variations in technology manufacturer across the various organisations. **A functional specification that can be implemented across GB:** By having the ESO as the project leader, a DNO and TO licensee as a partner, strong support from DERs, a comprehensive proposal for stakeholder engagement and consultation, and geographic spread of case studies, the Panel can have confidence that the project is well-positioned to inform, participate in, and reflect the broader discussion of strategic needs for Black Start compliant communications.
Attachments	