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	65
Question date	27 Sep 2018	Answer date	02 Oct 2018
Submission section question relates to			
Topic	(b) Value for money		
Question	Please provide a detailed description of the outputs you expect to gain from the 'desktop exercising' described within your submission.		
Notes on question			
Answer	The desktop exercises will be used to test and refine the operational processes devised for Black Start from DER. The exercise will seat representatives from all parties around a table to role play their organisation's response and actions and thereby enable all involved parties to systematically walk through their roles in the process. Practical test scenarios will be designed to enable validation and refinement of the process. These tests will examine the detail of operational and organisational interactions between ESO-TO-DSO-DER to ensure the correct information and data is passed to the relevant parties enabling the process to progress. This testing method focuses on the detail of information shared, rather than on the medium over which the information is shared. We will capture learnings and timings to further refine the processes and demonstrate the concept. This is an important part of the refine stage to optimise the efficiency of the process and identify and remove any bottlenecks to process flow. The desired output from desktop exercising is a streamlined, validated process to enact and despatch restoration from DER – demonstrating that the communication flows and data exchange occur at the points required to restore in a coordinated fashion. Whilst it is a relatively simple matter to test the data exchange interactions between systems, restoration relies on both these and a number of interactions between humans to convey instructions and provide overall coordination.		

	Specific exercise scenarios will be developed for a number of the individual case studies but elements to be tested may include: • Initiating the Black Start restoration process • Coordinating a number of DER providers in building up a Power Island • Synchronising DER Power Islands together using the DSO control instruction We will run these events in suitable training environments supported by simulated events that provide a real-time operational experience. We expect these events to be extremely stimulating and of significant value in terms of training for everyone involved. The desktop exercising part of this project provides an end-to-end feasibility test of a process. It will also be used to validate or provide estimated timings of individual process stages. Process bottlenecks or critical paths will have been identified at the design stage, however in an exercising environment there may be unknown dependencies that are drawn out. Therefore a key output will be to identify the dependencies of the process, and once identified to provide mitigations to these dependencies. Specific deliverables include: • A report on learning from the desktop exercising. • A report on the refined generic process, applicable to whole of GB, and integration with Black Start Strategy, with an implementation proposal laid out in coordination with the Procurement and Regulation workstream.
Attachments	