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	31
Question date	23 Aug 2018	Answer date	28 Aug 2018
Submission section question relates to	Project Methodology		
Topic	a) Low carbon/environment and net financial benefits		
Question	DERs implies batteries and DSR schemes. Will these be able to participate?		
Notes on question			
Answer	DER owners/operators will be able to participate in the project and influence its direction in a number of ways. This may involve attending workshops, responding to consultations, or by joining discussions and sharing data that supports detailed analysis. The proposed approach is to use case studies as the basis for analysis and design of solutions to facilitate Black Start from DER. The project must consider a range of circumstances and technologies if the proposed solutions are to be robust and widely applicable, although we are focused on a TRL of 4 or higher in terms of contribution to system restoration. Much of the work in the project will be done through stakeholder engagement, power system studies, desktop exercises and other activities that do not involve live trials on the network. Thus, many DER, of various types, will participate in the project even if they are not ultimately involved in live trials. We recognise that batteries could be an extremely valuable resource and could be of great use in live trials, where they might emulate the behaviour of other demand customers. In our review of case study opportunities we have identified two locations that feature battery energy storage (see case studies 8 and 9). However, there are significant numbers of batteries with connection offers and other applications in progress in multiple locations across the SPD and SPM areas. If battery resources become available during		

	the project timeframe, we will try to include more of these within the case studies. We will also consider including batteries that are not physically connected in network studies, and will look into the possibility of hiring batteries for live testing. The readiness of demand side response to play a role in black start will be reviewed in the NIA project (see our response to Question 11). We have proposed that the NIC project trials will not affect demand customers, i.e. we do not plan to interrupt customers' supplies and connect them to a DER-based power island. However, recent discussions with a generator highlighted a potential opportunity to utilise on-site demand (or that of neighbours whom they supply) as part of a trial. This might be viewed as a form of DSR. The exact scope of online testing will be defined during the project.
Attachments	