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	23
Question date	21 August 2018	Answer date	23 August 2018
Submission section question relates to	Section 4: Benefits, timeliness, and partners		
Topic	a) Low carbon/environment and net financial benefits		
Question	Is the intention for the new Black Start market to be annual, seasonal, or even based on shorter periods? Shorter period contracts may be able to capitalise on seasonal variations in the generation mix. Was this considered?		
Notes on question			
Answer	One of the key objectives of the Black Start from DER project is to develop the appropriate regulatory and commercial frameworks to allow participation of DER providers. This will include the development of new procurement approaches, if the existing ones are found to no longer be efficient for a large volume of smaller providers. Before any new approaches are designed in detail, the project will explore and assess various options to run a new Black Start market. The cost-effectiveness of all approaches will be assessed as part of the Cost Benefit Analysis (CBA). One of the possible procurement approaches that we will assess is a framework contract system, where wider participation and increased liquidity in the market mean that a large number of providers can sign up to standard contractual terms, without being tied into a contract for delivery. Once this framework agreement is set up with enough active participants, you can use 'call-off contracts' to quickly procure against more flexible requirements. This could allow procurement from week-ahead to year-ahead, and for contract durations of ESO's determination, which would enable ESO to capture additional benefit from seasonal variation.		

	For any procurement options we consider, there are many other factors that we would also need to assess, such as: how we evaluate and value service availability; risk of non-delivery or of being under contracted at short notice; how to manage redundancy and resilience; understanding the requirement for capital investment and how to balance this with increased liquidity and a larger fleet of providers; and a way of understanding and managing the interactions between, and value of, a service delivered by a number of providers contributing discrete components. All feasible procurement options, will be assessed and consulted on during the project Development phase to determine which route to market will provide the best value for the consumer. Until this is completed, together with consideration of technical, organisational and regulatory aspects of Black Start for DERs, it is not clear what the preferred solution will be. The potential for shorter-term and closer-to-real-time contracts will be considered as options within the project. During the options assessment of potential procurement approaches, we will enhance the CBA model to allow us to study the financial and carbon benefits of various procurement approaches. A relatively simple model was used to simulate the procurement of Black Start services in the submission, for example core service costs for each technology were estimated from typical historic costs of Black Start by provider. We believe that this was an appropriate simplification to understand the magnitude of benefits at bid stage. However, acknowledging all the aforementioned factors and the complexity of their interactions, ESO believes that sophisticated analysis, and open collaboration with industry, is required to fully understand and develop an efficient procurement approach through the Black Start from DER project.
Attachments	