

Electricity Network Innovation Competition Full Submission

Supplementary Answer Form

Project: REVISE

Tick if this answer has been provided verbally: ☒

Project code	WPD/EN/NIC/05	Question Number	39
Question date	02 October 2018	Answer date	04 October 2018
Submission section question relates to			
Topic			
Question	The components to build the ACS are already proven. Your answers imply the innovation in this element of the project only lies in the packaging, control, communication, operation and maintenance of the ACS as a configured substation. Please confirm our understanding, or provide evidence to the contrary.		
Notes on question	None		
Answer	<p>This response builds upon the answers to the 'Big Questions' which were presented to the Expert Panel as part of the Second Bilateral Meeting on 2nd October 2018.</p> <p>The ACS will be designed using a top-down approach to develop, test and implement a brand new connection which accelerates the development of a low carbon network.</p> <p>The design will focus on five key criteria:</p> <ul style="list-style-type: none"> • Safety; • GB Solution; • Compact; • Future Ready; and • Standardised and Pre-commissioned. <p>A significant part of the trial will include the innovative design of "<i>packaging, control, communication, operation and maintenance</i>" to ensure the ACS meets the criteria listed above.</p>		

Existing Solutions, such as the shipping container shown in Figure 1, have not been designed to the criteria we want to use for the ACS. In this instance, the equipment has been designed to fit into the enclosure which results in a design which comprises on all the criteria above.

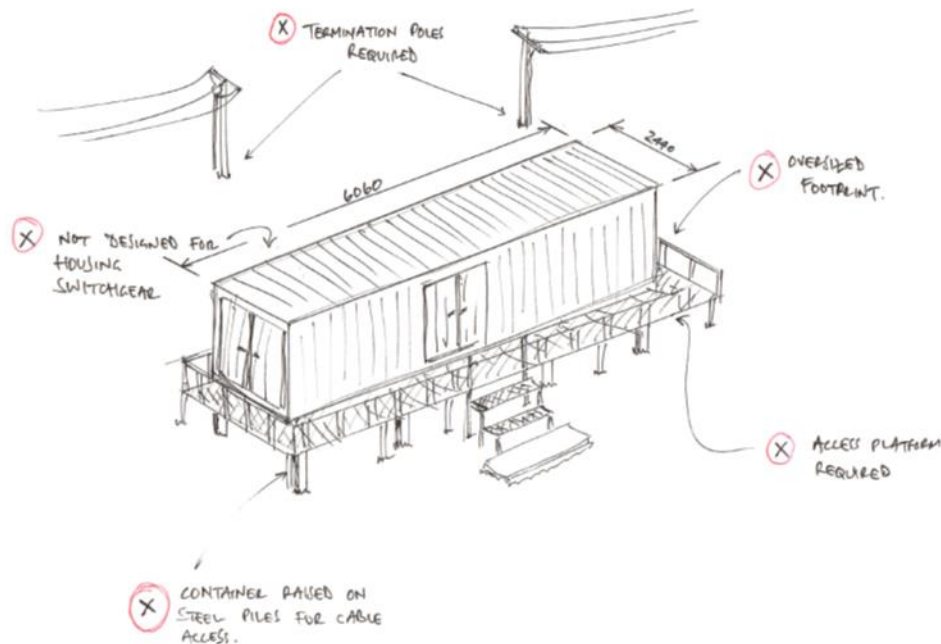


Figure 1 - Shipping container Solution

The first stage of developing the ACS will involve research and selection of the equipment that is fit for purpose. We will consider equipment that is currently used in GB, however, a key element of this stage will be exploring new equipment currently available elsewhere in the world. The key goals will be to miniaturise equipment where possible, reduce interface barriers and avoid unnecessary duplication of multiple ancillary systems used in current Solutions. We will aim to use the latest control and communication technology and integrate these with DPS and INR to make the ACS a lasting Solution for connections. In addition, we will engage with both Stakeholders and other DNOs throughout the project to ensure that we obtain feedback and share learning at each stage gate (as detailed in Section 5.2 of the FSP and Figure 2 below).

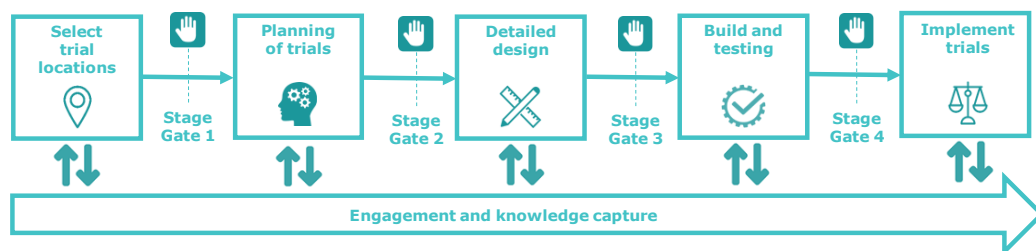


Figure 2 - Engagement and knowledge capture process

The development of the ACS is a significant task which is highlighted by the fact that no Solution currently exists. However, by using our experience and following our robust Project Delivery Plan, we believe we can trial and demonstrate a connection Solution that can achieve significant financial and carbon savings for GB.

Attachments