

# *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	43
Question date	02 October 2018	Answer date	04 October 2018
Submission section question relates to			
Topic			
Question	<p>In relation to partners please explain: why none of your generator supporters (referred to in appendix O) have committed to providing a financial contribution to the development and demonstration of the ACS. The Panel feels such an omission makes it harder to assess how the GB roll-out benefits will be achieved, in the timescale envisaged; The extent to which OEMs have said: they currently have products on the market that will deliver the desired outputs of one or more of the three methods; or they expect to bring products or services to the market that will deliver the desired outputs of one or more of the three methods.</p>		
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 2<sup>nd</sup> October 2018.</p> <p>As part of the process of developing the ISP and FSP we considered the appropriateness of having an end user partner for the ACS, however, following review we determined that progressing without a DG operator partner, or other, would deliver the optimal technical solution for the ACS. The main reason being that we aim to ensure that a GB applicable Solution is developed and involving a specific user would likely drive the Solution to be biased to a particular connection or DG solution. Other issues include the provision and protection of IP and the fact that specific trial areas have been identified but they are yet to be confirmed. We believe that engagement with a variety of DG operators and DNOs will deliver a GB applicable Solution ensuring that the GB roll-out benefits can be achieved in the specified timescales.</p> <p><u>OEM / Manufacturer Engagement</u></p>		

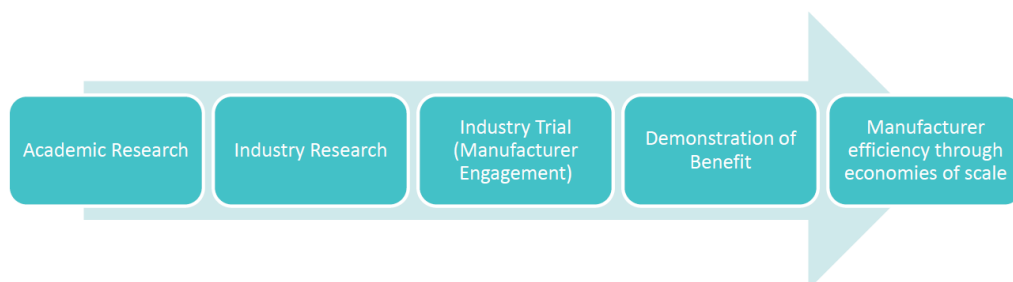
In relation to the extent to which OEMs have said they currently have products on the market that will deliver the desired outputs of one or more of the three Methods:

ACS – Following our RFI during the FSP we received six compliant responses from a number of UK and international organisations. The RFIs have shown that there are currently no ‘off-the-shelf’ products that meet the technical criteria for the ACS and are suitable for use on the distribution network. However, the RFIs have shown that the capability to design and develop an ACS exists in the market.

DPS – DPS is an entirely new protection philosophy that will facilitate the operation of autonomous network reconfiguration. The technology that will constitute DPS is principally advanced relays which currently exist in the market, however, this Method focusses on the novel use of this existing equipment to create a highly innovative Solution which has not previously been implemented on the distribution network.

INR – A Solution that has the functionality of INR does not currently exist in the market and therefore an innovation trial is warranted to develop and trial the technology on the distribution network. INR represents a significant advancement in network control, however, learning from control systems previously developed, specifically ANM schemes and SVO and FPL control mechanisms developed as part of our Network Equilibrium project will be built upon in its development. We have carried out informal discussions with suppliers of these types of systems who have stated significant interest in working with us to develop an INR solution.

Regarding manufacturers bringing products to market that will deliver the desired outputs; manufacturers do not routinely look to invest development and design resource without a clear need and benefits case being developed to provide a manufacturing organisation confidence that their investment will deliver profit. We have had significant experience in the development and trialling of a number of technology products, as part of innovation projects. Our experience has shown the need for an end user, DNOs TOs etc., to demonstrate the need case and benefits of a Solution to allow a manufacturer to invest in the final development and refinement of a new technology. Innovation funding is a key element for end users to demonstrate the need, work with manufacturers to develop a standardised Solution for GB and perform trials such that the technology can transition from innovation to a BAU solution. The graphic below shows the process routinely followed for the development of new technology solutions within the electricity distribution system.



Attachments