

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	3
Question date	09 August 2018	Answer date	13 August 2018
Submission section question relates to	Proforma Section 2		
Topic	(b) Provides value for money to electricity customers		
Question	How often do you envisage having to change protection settings on any given feeder? Do you have any historic information in this area given the amount of DG you have connected thus far?		
Notes on question	None		
Answer	<p>The connection of new DG or changes due to new load necessitates a review of the existing protection scheme and determines the new settings that are applied. WPD currently assess these changes as they occur and typically change settings in over 75% of instances.</p> <p>Static protection settings and occasional adjustment will not be appropriate for a dynamic and flexible network with high volumes of DG. This project will develop and trial adaptive protection to assess the benefits of such a Solution. The concept is similar to innovation projects which assessed the capacity that can be released through network automation (RPZ1), Active Network Management (LCNF Tier 2 Low Carbon Hub) and System Voltage Optimisation (LCNF Tier 2 Equilibrium). REVISE aims to prove capacity can be released from more advanced protection arrangements, and inform the appropriate trade-off between complexity and cost.</p> <p>The frequency of protection setting changes for the REVISE trial will be dependent on the complexity of the particular feeder, the size of demand and/or DG that is connected to it and the status of surrounding feeders that are also connected through a Normal Open Point (NOP). Considering these factors, we envisage that as Intelligent Network Reconfiguration (INR) seeks implement the best operating condition for the network overall, it is likely that several different network configurations could be deployed within the</p>		

	course of a day requiring protection settings to be changed accordingly on a number of feeders in the trial area (as detailed in Section 3.5.1 of the Full Submission).
Attachments	None