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| Network Innovation Competition 2020 Supplementary Answer form | | |

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| Project Name | QUEST | | |
| Question number | #1 | Pro forma section | Section 2 |
| Question date | 18/08/20 | Answer date | 20/08/20 |
| Question summary | The “Centralised Overarching Software” to be developed By Schneider Electric is a key component of the proposed system and a key deliverable for this project. Please clarify:a. What has been developed so far?b. Have simulations been carried out to prove the concepts?c. Were smaller trials considered, including verification at the PNDC or similar? | | |

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## Answer (please retain document formatting and do not exceed 2 pages unless otherwise agreed with Ofgem)

1. There has been no development of the centralised overarching software so far; it will be developed as part of the project.

To-date, none of the associated QUEST software has been developed. This activity will only commence once the algorithms for the QUEST system have been agreed by all parties and designed by the project. The design of the QUEST algorithms is a QUEST project deliverable and forms a key part of the early phase of the project. Once available and published, Schneider Electric will undertake the task of producing the necessary software in the ADMS.

1. The concepts of voltage optimisation are well established and, as such, there have been no simulations carried out to prove these concepts further. The discrete techniques for voltage optimisation already exist, and, based on overall value, QUEST seeks to make a decision as to which of these techniques has priority at any one time. The calibration of the QUEST system, and the development of policy for end-to-end voltage control, will be informed by QUEST field trials and offline simulations.
2. QUEST seeks to deliver whole-system, end-to-end voltage control and voltage optimisation. Small trials would not be sufficient to either prove or disprove the concepts of QUEST. As such, it is necessary to undertake a large-scale project. For these reasons, smaller trials at the PNDC were not considered, and as the discrete techniques, such as ANM, Smart Street and CLASS, are already installed on our network, it is preferable to trial QUEST directly on the real network. QUEST is exploring how whole distribution system voltage management and co-ordination can unlock capacity and maximise the benefits of discrete techniques, and to facilitate this it needs to be trialled across the voltage range of the distribution network.