

Electricity Network Innovation Competition Full Submission

Supplementary Answer Form

Project: Charge: Refuelling Tomorrow's Electrified Transport

Tick if this answer has been provided verbally: ☐

Project code	SPMV1	Question Number	16
Question date	21/08/18	Answer date	23/08/18
Submission section question relates to		N/A	
Topic	a) Low carbon/environment and net financial benefits		
Question	For Method 2, the SP proposal claims that 10% of medium and 25% of large chargers will trigger reinforcement (p.50). Furthermore that 174 and 13 medium and large connection respectively that can trigger reinforcement (p.51) which gives $174 \times (35-140\text{kW}) = 6-24.4\text{MW}$ and $13 \times (250-1,500\text{kW}) = 3.3-19.5\text{MW}$ in total for the SP areas. Which of these will completely avoid reinforcement ? From Table 14 it looks like 22% so even when multiplied across all the licence areas it is not clear how the GB wide capacity release has been calculated.		
Notes on question	The project team would be happy to discuss the development of the business case during a conference call if further clarity is requested.		
Answer	<ul style="list-style-type: none"> • This approach, with an assessment of large chargers (destination and en-route charging), was used for Methods 1 and 3 only, not Method 2. • The example provided outlines the theoretical savings to network reinforcement which could be achieved if a connectee can be steered to geographies with network capacity, avoiding the need for additional upstream reinforcement. The analysis is based on the estimated number of chargers required for the licence area (based on data from the Committee on Climate Change) and does not specify where the chargers will be located. The actual cost of the connection of chargers and the potential network reinforcement required will be dependent on network location. • Page 50 is solely focussed on Method 1. In this instance, we illustrate the likely costs of connecting chargers to the network by comparing the connection costs to SPEN's published Connection Charging Methodology. In that document, there are a number of real Connection examples, which we extract in Table 13. The purpose of this table is to draw out the delta in real connection costs to both the connectee, and the electricity customers, where deeper reinforcement is required. • The purpose of Method 1 is to allow the DNO to be more proactive in signalling potential capacity where it would be coincident with likely charging locations. This can only be done through the marrying of transport needs with network capacity. Ultimately, if there is an 		

	<p>alignment of network capacity to EV charging need, this would avoid the deeper reinforcement costs associated with individual connections. Clearly without doing the assessment, it is not possible at this time to define how many reinforcement schemes could be mitigated. For this reason, we did not assign capacity release figure for Methods 1 and 3 (Section 3.5, page 18)</p>
Attachments	n/a