

Question No.	From	Proforma section	Criteria	Question	Date question asked	Date response required	Date received	Follow up to Question #
1	NC	n/a	Requiring additional funding	Please explain how method 1 of the project goes beyond what licensees should consider in discharging it obligations under Standard Condition 25.	07 August 2018	09 August 2018	09 August 2018	
2	NC	n/a	Requiring additional funding	Please explain how method 1 of the project goes beyond what might be expected of a responsible DNO might undertake to inform its business plan for future regulatory periods.	07 August 2018	09 August 2018	09 August 2018	
3	NC	n/a	Innovative	Please explain why method 3 does not unnecessarily duplicate other project which provide visibility of network characteristics to customers so they know where to connect, eg ARC. Given the types of constraint will be the same for demand customers as they will for generation it is not clear why this should be considered innovative.	07 August 2018	09 August 2018	09 August 2018	
4	MQ	2	Direct Impact	Please explain how Methods One and Three would have a Direct Impact (as defined within the Governance Document).	09 August 2018	13 September 2018	13 August 2018	
5	NC	4	Innovative	Beyond stating that this the methods have not been applied before please explain why innovation funding is required. In explaining this please make the associated risks as perceived by SPEN clear.	09 August 2018	13 September 2018	13 August 2018	
6	LH	n/a	Innovative	Please explain how the activities within Method 1 are exemplary of Technology Readiness Level 5	14 August 2018	16 August 2018	16 August 2018	
7	NC	n/a	Value for money	Please explain in more detail how Methods 1 and 3 constitute a Direct Impact, rather than being one step removed from the distribution system.	16 August 2018	20 August 2018	20 August 2018	4
8	NC	n/a	Innovative	Please explain in detail the risk to SPEN NIC funding will mitigate that in your view prevents SPEN from implementing this work without NIC funding.	16 August 2018	20 August 2018	20 August 2018	5
9	CO	4	Value for money	Please provide the labour day rates for each of the different participants.	16 August 2018	20 August 2018	20 August 2018	
10	EP	2	n/a	P9 Flexibility Services – please explain what is envisaged here. It is not clear from 17.2 (not 16.2) what is envisaged for commercial services, and who these commercial services would be between. Please include in your answer what the implications might be if this attempt is unsuccessful.	21 August 2018	23 August 2018	23 August 2018	
11	EP	2	n/a	P9 Please explain the functionality and purpose envisaged for “the feasibility of connecting energy storage systems”	21 August 2018	23 August 2018	23 August 2018	
12	EP	2	n/a	P9 Please clarify what the “management platform” refers to.	21 August 2018	23 August 2018	23 August 2018	
13	EP	2	Innovative	P11 – what learning has been taken from WPD’s Electric Nation and how is this project distinct from it?	21 August 2018	23 August 2018	23 August 2018	
14	EP	8	n/a	P42 8.2 “The trials may vary charging rates on public charging infrastructure.” Please explain this further.	21 August 2018	23 August 2018	23 August 2018	
15	CO	3.5 Capacity Released	a) Low carbon/envir onment and net financial benefits	For the table on p.18/19, how was the released capacity for Method 2 calculated?	21 August 2018	23 August 2018	23 August 2018	
16	CO	13.1 Calculation of Financial Benefit	a) Low carbon/envir onment and net financial benefits	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*(35-140kW)=6-24.4MW and 13*(250-1,500kW)=3.3-19.5MW 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.	21 August 2018	23 August 2018	23 August 2018	
17	CO	13.1.2 Method 2: Reduced connection costs	a) Low carbon/envir onment and net financial benefits	Does the flexibility cost on p.52 of the proposal include additional hardware costs, especially if there are DNO owned batteries (see comments elsewhere re battery ownership)? Does it include the cost of behind the meter interventions by the customer?	21 August 2018	23 August 2018	23 August 2018	

18	CO	17 Appendix E – Detail on the Project Methods	a) Low carbon/environment and net financial benefits	For Method 1, how often will network capacity info be updated once the combined modelling and planning tool is BaU? How will new connection and Connection Offers be managed in this planning data?	21 August 2018	23 August 2018	23 August 2018	
19	CO	3.3 Construction of the business case	a) Low carbon/environment and net financial benefits	The cost reduction claimed for Method 1 (Table 1, p.17) appears high if all that will be saved is the cost of abortive connection design work and the cost of the reinforcement that will be delayed. Can you please show how it was calculated?	21 August 2018	23 August 2018	23 August 2018	
20	CO	17 Appendix E – Detail on the Project Methods	a) Low carbon/environment and net financial benefits	For Method 1, as each DNO has its own MV and/or LV planning tools and each transport planner may have slightly different needs, was the option considered of developing and agreeing with other DNOs a definition of the network availability layer in the GIS?	21 August 2018	23 August 2018	23 August 2018	
21	CO	18.1.2 Network composition	a) Low carbon/environment and net financial benefits	The proposal shows the percentage of areas being targeted for trials (pie charts on p.76). The percentage of dense urban areas is relatively small which is where big cities will have most problems. Was any analysis done to determine the number of different urban applications that have to be addressed through this method to provide significant and repeatable results?	21 August 2018	23 August 2018	23 August 2018	
22	CO	17.2.3 Phase 2 and 3: Management System	b) Value for money	How will the SGS ANM Strata be integrated with the existing SP systems? Does this trial lock SP into using the SGS product for all its schemes or does SGS ANM Strata act on a feeder or substation area rather than the system as a whole?	23 August 2018	28 August 2018	28 August 2018	
23	CO	19.1.2 Potential Smart Interventions	b) Value for money	For Method 2, where batteries are used, who will own them, and how will their costs be recovered?	23 August 2018	28 August 2018	28 August 2018	
24	CO	4.2.2 Project cost	b) Value for money	What is SGS scope of equipment supply for this project and is that reflected in their costs shown in the proposal?	23 August 2018	28 August 2018	28 August 2018	
25	CO	4 Benefits, timeliness, and partners	b) Value for money	How were project partners recruited?	23 August 2018	28 August 2018	28 August 2018	
26	CO	17.2.3 Phase 2 and 3: Management System	d) Is innovative	How was the SGS ANM Strata selected for this project. Was the market surveyed to determine if there is any off-the-shelf products available?	23 August 2018	28 August 2018	28 August 2018	
27	CO	2.2.3 Method 3 – The “ConnectMore” Online Connections Tool	d) Is innovative	Your proposal states that “Improvements in data sources and building on the work of other innovation projects, such as our Accelerating Renewable Connections (ARC), Northern Powergrid’s Customer-Led Network Revolution and WPD’s Electric Nation, now mean that we can develop innovative methods of providing customers with this information without submitting a connection request beforehand ” (p.11) So why do this project?	23 August 2018	28 August 2018	28 August 2018	

28	CO	17.2 Method 2: Tactical solutions for challenging connections	d) Is innovative	Wireless charging has been trialled in a funded project (Electric Boulevards). What additional learning do you hope to gain from this project?	23 August 2018	28 August 2018	28 August 2018	
29	CO	2.2.2 Method 2 – Tactical Solutions for Public Chargepoin ts	d) Is innovative	Can you provide details of the management platform that will be provided? How will this be innovative compared to an existing SCADA solution and some of the DSO projects currently underway that explore the interaction with wider market participants such as aggregators?	23 August 2018	28 August 2018	28 August 2018	
30	CO	Several	d) Is innovative	Your proposal states that some of the methods are similar to those in WPD’s Electric Nation. What are the differences? OPenLV will give LEPs the ability to drive some of the timed and staggered approaches themselves. Has there been any progress on that trial. Why not use the OpenLV platform rather the SGS’ ANM Strata?	23 August 2018	28 August 2018	28 August 2018	
31	CO	15 Appendix C: Project Plan	g) Robust methodology and ready to implement	Is a more detailed project programme available?	23 August 2018	28 August 2018	28 August 2018	
32	CO	2.2.1 Method 1 – Strategic Transport and Network Planning	g) Robust methodology and ready to implement	For Method 1, is it understood to what extent developers are driven by cost and/or programme rather than location?	23 August 2018	28 August 2018	28 August 2018	
33	LH	5	Knowledge dissemination	Regarding IPR, please clarify whether the software produced will be provided freely to GB licensees , not just DNOs.	23 August 2018	28 August 2018	28 August 2018	
34	LH	4	Partners/exter nal funding	Please provide further information on the involvement and contribution of local transport planners (rather than payed consultants that are part of the project). Please detail what discussions and actions have already been undertaken, and what further engagement is expected over the course of the project.	23 August 2018	28 August 2018	28 August 2018	
35	NC	9	Deliverables	Please provide information explaining how you have ensured that the level of funding requested against each of the Project Deliverables is appropriate.	30 August 2018	03 September 2018	03 September 2018	
36	NC	9	Deliverables	Please explain how deliverables 6 and 9.4 go beyond the standard learning dissemination requirements of the Governance Document and should be separate deliverables in their own right.	30 August 2018	03 September 2018	03 September 2018	
37	NC	10	Deliverables	Please provide additional information explaining how you decided the proposed level of evidence proposed for each project deliveralbe is appropriate. For example, for some deliverables you could have proposed commisioning documentation as part of the evidence.	30 August 2018	03 September 2018	03 September 2018	
38	NC	9	Deliverables	In response to an earlier question you say that the Connect Tool provides date on LV not just MV, and HV. Whilst this may well be the case please explain why applying these methods to LV requires further investment In innovation funding.	30 August 2018	03 September 2018	03 September 2018	3
39	NC	4	Partners	How firm is the commitment to the project and utilisation of the outputs if the project is succesful from Local Government partners/supporters/funders?	30 August 2018	03 September 2018	03 September 2018	
40	NC	2	Robust Methodology	<i>“We have recently published a consultation on proposed reform of network access and future charging arrangements. Please explain the potential impact of these proposals on your submission .”</i>	30 August 2018	03 September 2018	03 September 2018	

41	CO			For Method 2, can you please explain who will install, own and operate the chargers. Who will be the customers for the use of these chargers and how will access to the public in general be limited? Where will the meters be located and who will own them?	30 August 2018	03 September 2018	03 September 2018	
42	CO			For Method 2, what behaviours will be studied and and how will tests be structured to study changes in behaviour?	30 August 2018	03 September 2018	03 September 2018	
43	CO			For Method 1, what are the variables for the transport model and which sensitivities will be studied?	30 August 2018	03 September 2018	03 September 2018	
44	CO			For Method 1, is the intention to create a perpetual tool or is it a tool for carrying out early research on the impact of EV's on electrical infrastructure?	30 August 2018	03 September 2018	03 September 2018	
45	CO		involvement of other project partners and external funding	What are the financial commitments from the external funders and project suppliers?	30 August 2018	03 September 2018	03 September 2018	
46	CO	P11 – what learning has been taken from WPD's Electric Nation and how is this project distinct from it?	d) Is innovative	In your response to Q13 you indicate that the two aspect of the ConnectMore Tool that differentiates it from other innovation projects and existing tools is that (a) it will take into account HV and (b) location, size of load, flexible options. i. can you please clarify that the Method 1 Integrated Transport and Network Planning tool will not form part of ConnectMore ii. According to your submission, the Integrated Transport and Network Planning tool is unique as it goes down to LV. Can you explain why the network planning part of this differs from NAT which also goes down to LV. iii. It is proposed that once the requirements of users are better understood, NAT will add user interface tools that will include demand profiles, etc. Can you please provde detail of exactly how your tool will differe from NAT.	06 September 2018	10 September 2018	10 September 2018	
47	CO	13.1 Calculation of Financial Benefit	a) Low carbon/envir onment and net financial benefits	For the calculation of the Method 1 and 3 financial benefits, what is the assumption regarding the locational sensitivity of the charger location, i.e. what percentage of the MW capacity of chargers applied for will be able to move to a different location based on the information provided by these tools.	06 September 2018	10 September 2018	10 September 2018	
48	EP	13.1 Calculation of Financial Benefit	a) Low carbon/envir onment and net financial benefits	For the purposes of the rollout and the project who will provide the funding for the onstreet charging infrastructure?	06 September 2018	10 September 2018	10 September 2018	
49	LH		a) Low carbon/envir onment and net financial benefits	What would be the financial and carbon benefits if a conservative uptake profile is applied?	13 September 2018	17 September 2018	17 September 2018	
50	LH		a) Low carbon/envir onment and net financial benefits	Both financial and carbon benefits in Method 2 rely on the uptake of EVs being accelerated. Is the assumption of a one-year acceleration described as “modest” plausible given the total government and private resources applied to the uptake of EVs on LV networks?	13 September 2018	17 September 2018	17 September 2018	

51	CO	3.3 Construction of the business case	(a.1) the analysis of the cost, time to implement and level of network capacity that a project could provide, including scrutiny of all assumptions (if this measure is appropriate to the project)	One of the claimed benefits for your project is strategic alignment, presumably of the uptake in EVs with the SPEN ED2 plans. Can you please explain how the findings of this project will inform your ED2 plans and in particular how the timing of this project fits in with that goal, considering that the project will only be underway by mid 2019.	20 September 2018	25 September 2018	25 September 2018	
52	CO	3.4.2 Method 2 Benefits: Reduced Connection Costs and Network flexibility	(a.1) the analysis of the cost, time to implement and level of network capacity that a project could provide, including scrutiny of all assumptions (if this measure is appropriate to the project)	As far as understanding the behaviour of the end-users are concerned, can you please explain how you envisage that this project will measure the degree to which their behaviour can be influenced? As the relationship in this project will be between the DNO and an EV Energy Supplier (which has not been recruited), how will you influence the way in which the latter wil structure its part in the trial to ensure that the end-user behaviour is measured and tracked. Has there been any engagement with end-users regarding the feasibility and acceptability of flexible charging profiles.	20 September 2018	25 September 2018	25 September 2018	
53	CO	4 Benefits, timeliness, and partners	(a.iv) the claimed potential for replication of the project across GB	Was buying the transport information form PTV on a one off consultancy basis as part of BaU planning considered? If so, why was it rejected?	20 September 2018	25 September 2018	25 September 2018	

54	CO	4 Benefits, timeliness, and partners	(b.i) the proportion of benefits of the projects highlighted under (a) which would accrue to customers of the relevant network, as opposed to elsewhere in the supply chain (eg suppliers, other networks or the system operator). Where possible, the consultants should provide quantitative analysis	What is “liftable” and transferable by other DNOs from the PTV outputs in this project, i.e. what transferrable IP and learning will be available to other DNOs and which of these will be proprietry or only available if PTV is engaged?	20 September 2018	25 September 2018	25 September 2018	
55	EP		a) Low carbon/enviro nment and net financial benefits	Please explain how and why the expected carbon benefit of a 1 year acceleration of uptake of EVs has been attributed to each of the three methods. Please also confirm that the “scaling” referred to on page 19 but not mentioned in the detailed methodology (pp 56-57) has been included in the estimates shown on pages 48 and 57.	27 September 2018	02 October 2018	02 October 2018	
56	EP			The output of Method 1 of this project is a one-off overlay of SP Manweb’s network capacity (at the 132kV and 33kV levels only) with transport data. Please explain: the business as usual cost of applying Method 1 in each DSA and the marginal benefit of each iteration of its application; the extent to which maintaining the usefulness of Method 3 relies on refreshing the outputs of Method 1 and if so who will be responsible for this activity and cost; why limiting Method 1 to 132kV and 33kV is appropriate given the claimed outputs of Methods 1 and 3; and how we can be comfortable that the project is being delivered at value for money given PTV did not win the work as a result of a competitive process and stand to gain from the potential iterations referred to above.	02 October 2018	04 October 2018	04 October 2018	
57	EP			Please explain the business as usual cost of applying Method 3 in each distribution services area (DSA) and the marginal benefit of each iteration of its application. How can we be comfortable that the amount customers are being asked to contribute reflects the benefits EATL may receive by participating in the project, and reflects the benefits EATL may gain after the end of the project by applying the learning it has gained.	02 October 2018	04 October 2018	04 October 2018	
58	EP			Please describe the commercial trials in detail, (eg how many trials, how long will the trials take, what you are hoping to learn, who will participate, and exactly what you will do in each trial). How will you seek to measure and capture the key behaviour changes as a result of the potential different commercial arrangements?	02 October 2018	04 October 2018	04 October 2018	

59	EP			Please explain why we should have confidence that there will be a sufficient number of and mix of EV chargers included in the trial to deliver the anticipated learning you believe will be applicable for DNOs across GB.	02 October 2018	04 October 2018	04 October 2018	
60	EP			Please give the Panel assurance you have a robust methodology and risk mitigations, including identifying your critical path. The information provided thus far is insufficient.	02 October 2018	04 October 2018	04 October 2018	
61	EP			Regarding Method 2, please explain how you are going to collect the data and what arrangements you will have in place with your charging post owners/operators with whom you are contracting.	02 October 2018	04 October 2018	04 October 2018	