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| **QUESTIONS** | **ANSWERS** |
| 1. Is the competition only open to projects demonstrating load control over electric vehicles?
 | The competition is open to proposals which demonstrate control over any domestic load. However, there is focus on EVs as this is where there seems to be most growth in terms of load control devices. We intend to fund two full projects and expect at least one of them to be focussed on managing EV load.  |
| 1. Is there scope for DNOs and other parties to have control over the switch?
 | The Data and Communication Company (DCC) systems and the smart energy code do not currently allow for parties other than electricity suppliers to initiate a load control message over the DCC wide area network. There is potential to demonstrate the concept of a load control message being initiated by someone other than an electricity supplier, but this other organisation (e.g. DNO) would need to have an arrangement with an electricity supplier, who would send the message over the WAN upon the third party’s instruction. This is why we are keen to involve energy suppliers in the consortia. There could be some useful learnings from a project which sought to demonstrate this concept, however it’s not an essential part of the project.  |
| 1. How does this competition fit with the SEC mod 46 Process?
 | Smart Energy Code modification (SEC Mod) 46 is currently looking at different options to use smart meter infrastructure to allow distribution network operators (DNOs) to perform load control. One of the options being considered in this modification is giving DNOs control of an auxiliary load switch. This competition seeks to demonstrate the technical potential of the smart meters system to perform load control using an auxiliary load switch, but, as noted under response to question 2 will only be able to do this based on a message initiated by an electricity supplier, as this is all the SEC and the DCC systems currently allow. This procurement exercise will not result in any changes to Smart Energy Code (SEC) for example to allow DNOs control of loads, which is what the SEC mod process could result in.  |
| 1. Regarding the technical solution, do you envisage the device to be physically integrated with the charger or just installed together? Are there any restrictions on design? Could this be a very simple solution?
 | We are not prescribing the ‘format’ and are open to different solutions. Both integrated or dual installations of the charge point with the switch would be acceptable. The design can be simple as along as it meets the requirements set out in the ITT. We however are interested in the learnings (commercial, technical and consumer based) arising from the project and there will be a proportion of the scoring of bids allocated to this.  |
| 1. How do you envisage EV charging to be tracked?
 | This could be through a smart electricity meter (including potentially additional meters, the system supports 4 per premise), twin element or a measurement method outside of the smart metering system. But tracking of charging levels could also be achieved through communications outside the smart meter system.  |
| 1. How would the EV load be settled?
 | How EVs or other specific loads are settled will be up to the contractor to determine. There may be valuable commercial learnings which could be dependent for example on half hourly settlement, but we do not have specific requirements (beyond existing regulation) in this area. |
| 1. Can a HCALCS work with both SMETS1 and SMETS2?
 | HCLACS are defined under SMETS2 so this (currently) is a SMETS2 only trial. |
| 1. Does the project apply to domestic charging points only or for public charging posts as well?
 | The project relates to demonstration of smart meter infrastructure, the scope of which is domestic and small business properties. Public charge points are therefore out of scope.  |
| 1. What if we spend all this money and effort but suppliers decide not to use this solution? If there was an appetite for the solution, why aren’t suppliers doing this already?
 | The Office for Low Emission Vehicles (OLEV) is planning secondary legislation which will set out minimum requirements for electric vehicle charge points. These regulations are expected to take to effect mid-2019 and include provisions on both interoperability and security. Whilst it is expected industry will be remain free to choose how to meet these requirements, it is expected that the legislation could make smart meters a more attractive solution to industry as they are a ready-made system providing interoperability and security. Whilst there are many aspects to interoperability, BEIS is interested in interoperability between charge point operators, i.e. that smart functionality is retained and usable by different charge point operators (who are in some cases also the electricity supplier) without the need for a site visit or change of hardware. This relates to BEIS departmental strategic objective 4 – promotion of competitive markets. A key facet of BEIS’ strategy for delivery of this objective in the retail electricity market has been roll out of smart meters to facilitate switching.  |
| 1. Has BEIS held any discussions with Ofgem on settlement of EV charging and how does this project link up with the settlement process?
 | We haven’t discussed the specifics of settlement with regard to this project with Ofgem, but BEIS is engaged closely with Ofgem’s work on market wide half hourly settlement.  |
| 1. Is there a potential problem with the messages to reduce or increase demand being offset by changes in demand from the same property? For an example, an EV is ramped down, but a battery elsewhere in the house increases charge rate.
 | There is potential for this problem to exist already. It is not within scope of this project to try and resolve it. Whilst any learnings around governance/control of load will be valuable, the essence of the project is to demonstrate load control functionality of smart meter systems.  |
| 1. The requirement to include Commercial Product Assurance (CPA) stage could make delivering against the proposed timescales challenging, as current experience suggests that it takes about 18 months for some products to obtain CPA. How are you planning to manage this?
 | Devices that are suitably secure will pass through the CPA accreditation scheme smoothly and as such we are not expecting it to take this length of time.We have an established relationship with National Cyber Security Centre (NCSC), with regards to this and other projects, and are and are using this to manage any risks around the length of the accreditation process.  |
| 1. Who is going to manage data capture and analysis?
 | This will be up to consortium to decide. Bids will be assessed on their ability to drawn out and share learnings based on data analysis. We will consider putting some detail in the ITT about what data from the trial is required.  |
| 1. How do you intend to compare data from the two trials in the final stages of the project?
 | There will be a third-party project manager to manage these outputs, in conjunction with BEIS. The trials may demonstrate control of different types of load, so the data coming out may not be totally comparable. As for data management in the project, that will be up to each consortium to manage individually. |
| 1. Who evaluates feasibility studies?
 | BEIS will evaluate the studies and determine which go through to full project delivery.  |
| 1. Are timelines that the Procurement shared realistic, as evaluations are finalised towards the end of December and notifying bidders occurs over the Christmas week?
 | The concern of availability over the Christmas period is noted and additional time has been added to the timetable to address this.  |
| 1. What happens in a scenario when EV battery is depleted and customers need to continue charging? Are there going to be any communications with customers?
 | Similar to question 12, this is a potential problem that exists in the market already. Most current market offerings where load control is performed by the supplier or a third party include an override provision for the consumer, and it is likely that similar functionality will be needed to gain consumer acceptance in the trial. Potential bidders will need to consider how best to meet consumer’s needs, and this will be something against which bids are scored as part of broader consumer engagement strategy. |
| 1. What about consumers and whether they will accept this - there is currently nothing in the shared documentation about the need to consider consumer’s needs.
 | This is implied but BEIS will consider how to reflect it in the ITT as part of a bidder’s consumer engagement strategy. |
| 1. Where will high level control come from? What will switch HCALCS on home chargers on/off? Is there a potential to extend the trial to agents acting on behalf of suppliers – at the moment, it seems only suppliers can control the load?
 | The current smart meter systems allow the load control message to be initiated by the energy supplier, using smart meter communications infrastructure. This is all that’s currently provided for by the SEC and changes to SEC are not in the scope of this project. If other non-energy supplier parties want to control the load, they will need to work with energy suppliers and communicate with them (outside of the smart meter communications infrastructure) for the suppliers to send control messages on their behalf. It would be interesting to draw out learning for how/if this type of arrangement could work in practice. This is why DNOs are listed as “potential” party in the ITT.  |
| 1. Architecture seems to imply that brain is with supplier; some are of the opinion that the brain should be with customer.
 | Smart Meters enable a range of demand side response models, for example for consumers to manage their load themselves in response to a price signal through a time of use tariff. This project seeks to demonstrate load control initiated by the supplier. Current commercial models for remote load control generally include some kind of financial incentive to the consumer, such as an annual rebate, in return for provision of flexibility. Bidders will need to consider how they can engage consumers in the trial, the extent to which this will incur costs, and how these can be offset by any commercial gains from being able to control load. Please also see Q18 and related answer. |
| 1. What happens with revenues associated with the smart charging (smart charging/ load control has a market value)?
 | There is no intention for BEIS to seek to claim any such benefits from contractors, it will be up to the consortium to decide how these are used. However as per response to Q20, consortium will need to show how they are going to ensure engagement of consumers, which could include financial incentives.  |
| 1. Will there be one ITT or two ITTs (for each of the phases - feasibility study and actual project to design, build, test and trail devices)?
 | There will be one ITT that covers both phases, with a break clause at the end of Phase 1, the feasibility stage. This break clause is expected to be used for up to 3 projects if 5 feasibility studies are commissioned.  |
| 1. What about impacts on the end load – for example, on an EV? There is potential to override functionality built into the car by switching on and off, which could cause damage to the battery?
 | This is a potential problem which already exists and the market is addressing. We note again that HCALCS control functionality can be used to set any two charging levels e.g. 100% and 75%, rather than 100% and 0%, which is what we understand would cause problems for vehicles and batteries.  |
| 1. What are you specifically looking at to trial?
 | The project seeks to demonstrate the load control functionality of the smart meter system. Further detail is in the ITT.  |
| 1. Will CPA, Zigbee and similar standards be mandatory?
 | Devices will need to comply with the requirements for HCALCS defined in [SMETS](https://smartenergycodecompany.co.uk/the-smart-energy-code-2/) and so will need to show how they are going to pass CPA for HCALCS. Relevant standards (e.g. such as MID for measuring instruments etc.) need to be met. |
| 1. Will scoring criteria be made available?
 | Yes, this will be made available as a part of ITT.  |