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30 April 2018

## **Consultation on Interim Solution for Managed EV Charging – ELEXON Response**

We welcome the opportunity to comment on the questions posed in the above consultation document.

As you are aware, ELEXON (as 'BSCCo') is the Code Administrator for the Balancing and Settlement Code (BSC). We are responsible for managing and delivering the end-to-end services set out in the BSC. This includes responsibility for the delivery of balancing and imbalance settlement.

As such, we feel that the first section of the consultation, on the interim solution, relates to short term operational issues outside of our remit, and so have no comments to make. However, the second section on longer term solution does overlap with our work in enabling innovation in the electricity market, and so we have only answered relevant questions in this section.

ELEXON believe that any solution to local constraint issues arising from EV charging should be market based. We are keen to be involved in any ongoing discussion in relation to smart charging, smart grids, smart cities and development of the Distribution System Operator role. We want the BSC to enable development of flexibility and new technology offerings. We consider that we are ideally placed to deliver changes required in these areas, and are currently developing ways to help the industry evolve, such as an [ELEXON Sandbox](#) for the electricity market to test innovative ideas. We have also recently published a [white paper](#) which offers an ELEXON view of how BSC central services could be adapted to offer Settlement solutions in support of individual customers buying electricity from more than one Supplier. This includes consideration of EV charging.

The views expressed in this response are those of ELEXON Ltd alone, and do not seek to represent those of the BSC Panel or Parties to the BSC.

If you would like to discuss any aspects of our response, please don't hesitate to contact me at [Jeremy.caplin@elexon.co.uk](mailto:Jeremy.caplin@elexon.co.uk).

Yours sincerely,



Jeremy Caplin  
Market Architect

**CONSULTATION ON INTERIM SOLUTION FOR MANAGED EV CHARGING  
– ELEXON RESPONSE**

<b>Question 10</b>	Do you believe that the energy industry should make steps to implement the smart meter solution in the best long-term interest of energy consumers?
<b>Answer</b>	<p>The rollout of smart meters will bring many benefits to the community, primarily extending the possibility for Half Hourly Settlement to all consumers. ELEXON are fully committed to the roll out of Half Hourly Settlement, and are leading the development of the Target Operating Model on behalf of Ofgem. Smart meters and HHS also provides access to more granular meter data, which may help the Smart EV solution by providing an audit trail of actions taken by the DSO or others.</p> <p>Some people may have some concerns that were a solution to this issue to require significant changes to the smart meter technology; this could have an adverse impact on the speed of rollout of Smart meters.</p>

<b>Question 12</b>	<p>It is considered that there could be significant benefits to using smart meter infrastructure (e.g. enhanced security, use of existing communication facilities, robust governance), however, there may be implications around fostering innovation and promoting other market-led alternatives.</p> <p>Do you believe the benefits of using smart meter infrastructure for managing EV charging outweigh any potential drawbacks?</p>
<b>Answer</b>	<p>ELEXON believe that the market should be able to innovate and discover the optimum solution. The market may have concerns were a single technological solution to be imposed that limited other market-led alternatives.</p> <p>Further investigation needs to be undertaken to provide more evidence to allow us to determine the balance between any potential benefits of using smart meter infrastructure for managing EV charging and any potential drawbacks from so doing.</p>

<b>Question 13</b>	Would you like to offer any general feedback on the possible longer-term solution?
<b>Answer</b>	<p>There are a number of factors that need to be considered in considering longer term solutions to managing EV charging. A number of these we highlighted in our response to the recent Energy UK consultation.</p> <p>For example, as part of the Department for Transport’s (DfT’s) On-Street Residential Charge Point Scheme, the Office for Low Emission Vehicles (OLEV) is expecting large numbers of ‘slow’ charge points to be installed in unmetered lamp posts. These may also contribute to local system constraints and so need to be considered in any solution, including the interim solution. For example, would the limits for duration of demand management per day or per month apply to a single lamppost or to a single user who may use a different lamppost each day to charge from.</p> <p>We understand that, for lamp post charge points, local authorities are tendering for third parties to both provide and operate the charge points. If there is a future desire for Distribution Businesses to control these charge points, this would therefore mean interacting with multiple third-party operators (in addition to the energy supplier).</p> <p>As well as removing any potential BSC barriers to lamp post charge points, we have been talking to other innovators in the Smart Charging arena. These include Vehicle to Grid (V2G) offerings and parties looking at options for domestic, or in-car, metering.</p> <p>For any charging point, the market interaction with the Supplier, as well as other interested parties, must be considered. For example a Supplier may have procured energy on the assumption of a particular EV charging profile (which could even form part of the agreement with the consumer). Changes to this profile imposed by a EV managing system could have an impact on the Supplier’s imbalance position.</p> <p>Similarly, care must be taken to ensure that multiple parties are not attempting to manage the charging of a single EV at the same time or that there are market arrangements in place to cope with this situation. For example it would be possible for a service provider to sell a frequency response service to the System Operator based on short term variations in EV charging rate based on system frequency. If a number of vehicles providing this service were then disconnected by a separate EV charging management solution in order to manage local constraints then the service provider may incur costs as a result of failure to deliver the contracted volume of frequency response.</p> <p>As you may be aware, we are currently developing an <a href="#">ELEXON Sandbox</a> for the electricity market to test innovative ideas. We are also investigating options for consumers to have multiple Suppliers. These arrangements would be required where customers wish to use a different Supplier for their EV.</p> <p>We have also published a <a href="#">white paper</a> which offers an ELEXON view of how BSC central services could be adapted to offer Settlement solutions in support of individual customers buying electricity from more than one Supplier. This includes consideration of EV charging.</p> <p>We are also designing the arrangements and Target Operating Model for Market-wide Half Hourly Settlement for Ofgem, which will also consider how arrangements are flexible to accommodate new technologies.</p>