SVG201/03 – ELECTRIC VEHICLE CHARGING WHERE THE APPARATUS CONTAINS A METER

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Owner/author	Kevin Spencer
Purpose of paper	Decision
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Summary	This paper invites the SVG to agree, in principle, the Unmetered Supplies User Group's (UMSUG's) proposed approach to electric vehicle (EV) charging where the Apparatus contains a Meter.

1. Why are we bringing this paper?

1.1 ELEXON has been approached by a number of parties looking to implement EV charging via Apparatus connected to unmetered street lighting columns. In two cases that we are aware of, the system developer has proposed using charging equipment that contains a Measuring Instrument Directive (MID) approved Meter in, or attached to, the unmetered lighting column.

1.2 ELEXON's usual position would therefore be that this type of set up falls under the metered, rather than the unmetered, arrangements. However, further discussion with developers has identified practical obstacles to using the installed Meter for BSC Settlement.

1.3 The UMSUG has discussed these issues and recommends an approach for accommodating these types of technologies under the UMS arrangements in certain, restricted, circumstances.

2. What are the obstacles to using the Meter for BSC Settlement?

2.1 The proposed set up does not sit well under the metered arrangements because:

- The Meter comes already built into the EV charger and the display cannot be accessed.
- Meter Operator Agents (MOAs) would not be able to access the Meter for maintenance. In one case MOAs have suggested fitting their own Meter as well as that already in the EV charging system, which could be a disproportionate approach.
- Even if a second Meter is fitted by the MOA, Licensed Distribution System Operators are unwilling to allow these EV charging solutions to be metered due to the size of the supply and engineering regulations.

So we are left with a situation where potentially innovative solutions are falling between the metered and unmetered arrangements.

2.2 ELEXON has already developed a solution for Measured Central Management Systems (mCMS). The first approved mCMS was for an EV charging system that contained a 'movable' Meter within the charging cable. This could not be accommodated under the metered arrangements because the Meter can move between different Grid Supply Point (GSP) Groups (distribution areas).

2.3 The proposed new charging systems are not significantly different from the approved mCMS other than the fact that the Meter would be at a fixed Metering Point.

2.4 ELEXON has had a number of discussions on these issues with Ofgem and Regulatory Delivery at the Department for Business, Energy & Industrial Strategy (BEIS). We have reiterated that, if the solution contains a Meter, we believe it cannot be considered for a UMS.

3. What is the proposed way forward?

3.1 ELEXON discussed the issues with the UMSUG at its meeting on 10 October 2017 (UMSUG paper 121/06). We proposed to the UMSUG that, to resolve this impasse, we ask developers to fit an appropriate 'measuring device' rather than a Meter. These devices will not have a display and as such cannot be deemed to be a Meter under the MID (or therefore the BSC). We would then allow such arrangements to apply for testing as an mCMS under the UMS arrangements. The accuracy of the measuring device will be established during the mCMS witness testing.

3.2 ELEXON also proposed that this approach is allowed only for slow-charging arrangements on residential streets. This is to differentiate it from larger, fast-charging arrangements via feeder pillars, which will still need to be metered.

3.3 We noted that we would need to update the mCMS Test Specification to reflect the new approach, including a definition of 'slow-charging'.

4. What is the UMSUG's view?

4.1 The UMSUG has considered how these technologies fit within the requirements of the UMS Statutory Instrument (SI)[1] and the BSC.

4.2 The SI permits, though does not require, a UMS to be given where:

- the electrical load is of a predictable nature; and
- either:
  - the electrical load is less than 500W; or
  - it is not practical for a supply of electricity to be given through an appropriate meter at the premises due to:
    - the anticipated metering costs in the particular case being significantly higher than the usual metering costs associated with that size of electrical load;
    - technical difficulties associated with providing such a meter in the particular case; or
    - operation of law so as to prohibit or make excessively difficult the provision of such a meter in the particular case.

4.3 UMSUG members were generally supportive of ELEXON's proposed approach on the basis that the equipment's consumption would be predictable (albeit retrospectively through the mCMS data) and it appeared impractical to meter it.

4.4 UMSUG members noted the importance of restricting the circumstances in which a UMS arrangement could be used for EV charging equipment and agreed to help ELEXON work up appropriate definitions. Members noted that these would need to be constructed carefully. For example, not all residential streets are public highways. In some cases, the equipment may also be installed in separate posts to avoid trailing cables across footpaths – although they would still be fed through the existing UMS connection point. Members

[1] The Electricity (Unmetered Supply) Regulations 2001 (Statutory Instrument 2001/3263). The SI sits under Schedule 7 of the Electricity Act 1989 and takes precedence over the BSC.

were confident that appropriate wording could be established. The UMSUG agreed that the UMS Operational Information Document (OID) would need to be updated as well as the mCMS Test Specification.

4.5 The UMSUG member from Regulatory Delivery at BEIS indicated that they would wish to seek advice from BEIS's legal team, noting that BEIS's published guidance on the SI states that 'supplies to electric vehicle charging points should be metered in all cases because of the size of the load and the inability to predict the usage of such points'.

4.6 The UMSUG therefore agreed to recommend ELEXON's proposed approach to the SVG, subject to:

- Receiving any subsequent legal advice from BEIS;
- Agreeing the necessary changes to the OID and mCMS Test Specification; and
- Considering each individual mCMS application against the amended Test Specification on a case-by-case basis.

5. Recommendations

5.1 We invite you to:

a) **NOTE** the issues identified with charging EVs via street lighting columns where the Apparatus contains a Meter; and

b) **AGREE** the UMSUG's recommended approach in principle, subject to:

i) Receiving any subsequent legal advice from BEIS;

ii) The UMSUG's development of the necessary changes to the OID and mCMS Test Specification (noting that the OID changes will require the SVG's approval); and

iii) Considering each individual mCMS application against the amended Test Specification on a case-by-case basis.

For more information, please contact:

Kevin Spencer, Market Architect

kevin.spencer@elexon.co.uk

020 7380 4115

