

## Compliance Testing and Protocol Approval – The EM-Lite EMA1 (integral Outstation) Meter type

### Supplier Volume Allocation Group (SVG)

Date of meeting	<b>6 April 2021</b>	Paper number	<b>242/06</b>
Owner/author	<b>Mike Smith</b>	Purpose of paper	<b>Information</b>
Classification	<b>Public</b>	Document version	<b>1.0</b>

**Summary**

**In July 2019, EM-Lite Ltd, a Meter manufacturer, applied for Compliance Testing of the EMA1 (integral Outstation) Meter type. This was against Code of Practice 10 Issue 2. In February 2021, TMA Data Management Ltd, a Half Hourly Data Collector, applied for Protocol Approval of the EMA1 (integral Outstation) Meter type. We invite the SVG to note that, as a result of successful Compliance and Protocol Approval testing, we have issued a Certificate of Compliance to EM-Lite Ltd, and a Certificate of Protocol Approval to TMA Data Management Ltd, for the EMA1 (integral Outstation) Meter type.**

### 1. BSC requirements

1.1 The Balancing and Settlement Code (BSC) requires all new Half Hourly Metering Equipment types (i.e. Meters and Outstations) to go through Compliance Testing and Protocol Approval in accordance with [BSCP601](#)<sup>1</sup>. Appendix 1 contains further details about the BSC requirements and the BSCP601 application processes.

### 2. Compliance Testing – The EM-Lite EMA1 (integral Outstation) Meter type

- 2.1 In July 2019, EM-Lite Ltd, a Meter manufacturer, applied for Compliance Testing of the EMA1 (integral Outstation) Meter type. This was against [Code of Practice \(CoP\) 10](#) Issue 2<sup>2</sup>.
- 2.2 Between 4 July 2019 and 21 October 2019, SGS UK Ltd (a Compliance Testing Agent) carried out Compliance Testing of the EMA1 (integral Outstation) Meter type, with firmware version v3.02-7 (and software version v3.20-4).
- 2.3 In December 2019, following successful testing, we reviewed the Compliance Testing report and confirmed the EMA1 (integral Outstation) Meter type passed all the relevant tests for CoP10 Issue 2. As a result, we issued a Certificate of Compliance to EM-Lite Ltd for the EMA1 (integral Outstation) Meter type, using firmware version v3.02-7 (and software version v3.20-4).
- 2.4 In October 2020 EM-Lite Ltd notified us of an amendment to the approved firmware and confirmed that the amended firmware (version v3.03-2) did not impact previously approved Settlement functionality. EM-Lite Ltd also confirmed that the metrology, which is wholly contained within software version v3.20-4, was not impacted either. As a result, we issued another Certificate of Compliance to EM-Lite Ltd for the EMA1 (integral Outstation) Meter type, using firmware version v3.03-2 (and software version v3.20-4).

<sup>1</sup> 'Metering Protocol Approval and Compliance Testing'

<sup>2</sup> 'Code of Practice for the metering of low voltage circuits for Settlement purpose'

2.5 For the purpose of updating the 'CoP Compliance and Protocol Approvals' list on the [BSC Website](#), EM-Lite Ltd confirmed that, for the EMA1 (integral Outstation) Meter type:

- It would like to use 'EM1' for the [Data Transfer Catalogue](#)/Network data item J0471 'Outstation Type'; and
- The J0432 'Pulse Multiplier' can only be '1'. This means the EMA1 (integral Outstation) Meter type does not require a proving test under [BSCP514](#)<sup>3</sup> and [BSCP502](#)<sup>4</sup>.

### 3. Protocol Approval - EMA1 (integral Outstation) Meter type with TMA Data Management Ltd

3.1 In February 2021, TMA Data Management Ltd, a Half Hourly Data Collector (HHDC), applied for Protocol Approval of the EMA1 (integral Outstation) Meter type. The application was on behalf of the following HHDC Market Participant IDs (MPIDs):

- UDMS;
- BMET; and
- ACCU.

3.2 TMA Data Management Ltd implemented the EMA1 (integral Outstation) Meter type's protocol (EML\_Protocol\_NET.dll version 1.0.0.7) into its data collection software, MDR v3.4 (i.e. the instantiation).

3.3 On 19 March 2021, we witnessed the successful Protocol Approval testing and, following a review of the test report, we issued a Certificate of Protocol Approval to TMA Data Management Ltd covering the MPIDs listed above.

### 4. Updates and notifications

4.1 In March 2021, we:

- Published an updated version of the 'CoP Compliance and Protocol Approval' list to include:
  - the EMA1 (integral Outstation) Meter type; and
  - the Protocol Approval for the EMA1 (integral Outstation) Meter type, for TMA Data Management Ltd, covering all three HHDC MPIDs;
- Published an updated version of the 'Valid Outstation Types' list with 'EM1' for the EMA1 (integral Outstation) Meter type; and
- Issued Newscast articles notifying BSC Parties and BSC Party Agents of the successful Compliance Testing and Protocol Approval for the EMA1 (integral Outstation) Meter type.

### 5. Recommendations

5.1 We invite the SVG to:

- a) **NOTE** we have issued a Certificate of Compliance to EM-Lite Ltd for its EMA1 (integral Outstation) Meter type, against Code of Practice 10 Issue 2; and
- b) **NOTE** we have issued a Certificate of Protocol Approval to TMA Data Management Ltd, a Half Hourly Data Collector, for the EMA1 (integral Outstation) Meter type, covering Market Participant IDs UDMS, BMET and ACCU.

---

## Appendix

Appendix 1 – BSC requirements (details)

---

### For more information, please contact:

Mike Smith, Metering Analyst

[mike.smith@elexon.co.uk](mailto:mike.smith@elexon.co.uk)

020 7380 4033

---

<sup>3</sup> 'SVA Meter Operations for Metering Systems Registered in SMRS'

<sup>4</sup> 'Half Hourly Data Collection for SVA Metering Systems Registered in SMRS'

## 1. Appendix 1 - BSC requirements (details)

1.1 [Section L](#)<sup>5</sup> of the Balancing and Settlement Code (BSC) requires all Metering Equipment<sup>6</sup> to either:

- comply with the requirements set out in the relevant [Code of Practice](#) (CoP) at the time the Metering System is first registered for Settlement under the BSC (L3.2.2); or
- be the subject of, and comply with, a Metering Dispensation (L3.4).

1.2 **Compliance Testing** - In order to confirm new Half Hourly Metering Equipment<sup>7</sup> types comply with the requirements of the relevant CoP, the Half Hourly CoPs (i.e. CoPs 1, 2, 3, 5, 6 and 10) require new Half Hourly Metering Equipment types to go through Compliance Testing, in accordance with BSCP601.

1.3 Under [BSCP601](#), the applicant<sup>8</sup> and Elexon agree a suitably accredited independent test house (a Compliance Testing Agent) to carry out the Compliance Testing on the new Half Hourly Metering Equipment type. We also agree the testing script. Following Compliance Testing, the applicant submits the Compliance Testing report to us for review. If the new Half Hourly Metering Equipment type passes all the relevant tests then we can:

- Issue a Certificate of Compliance<sup>9</sup> to the applicant for that new Half Hourly Metering Equipment type, against the relevant CoP;
- Update the 'CoP Compliance and Protocol Approvals' list on the [BSC Website](#);
- Update the 'Valid Outstation Type' list on the BSC Website, if the protocol is new (i.e. not already on the list because it is used for other Outstations);
- Notify BSC Parties and BSC Party Agents of the Compliance Approval (via our [Newscast](#) publication); and
- Notify the BSC Panel (i.e. the relevant BSC Panel Committees, namely, the Supplier Volume Allocation Group (SVG) and/or the Imbalance Settlement Group (ISG)).

1.4 **Protocol Approval** - The Half Hourly CoPs also require Outstation data to be to a format and protocol approved by the BSC Panel<sup>9</sup> in accordance with BSCP601.

1.5 An Outstation is a device that stores data (e.g. Half Hourly data and alarms) from a Meter, or Meters, for later transmission to a Half Hourly Data Collector (HHDC) or the Central Data Collection Agent (CDCA). An Outstation may be integral to, or separate from, a Meter.

1.6 A protocol, in the context of an Outstation, is the set of rules (or language) governing the communication of data between the Outstation and any other device connected to it. The manufacturer of the Outstation usually designs the protocol.

1.7 Under BSCP601, the applicant<sup>10</sup> and Elexon agree the testing script. The Protocol Testing Agent<sup>11</sup> carries out the Protocol Testing and we arrange to witness it. Following Protocol Testing, the applicant submits the Protocol Testing report to us for review. If a new Half Hourly Metering Equipment type passes all the relevant tests then we can:

- Issue a Certificate of Protocol Approval to the applicant for that new Half Hourly Metering Equipment type;
- Update the 'CoP Compliance and Protocol Approvals' list on the BSC Website;
- Notify BSC Parties and BSC Party Agents of the Protocol Approval (via our Newscast publication); and
- Notify the BSC Panel (i.e. the SVG (for HHDC Protocol Approvals) or the ISG (for CDCA Protocol Approvals)).

---

<sup>5</sup> 'Metering'

<sup>6</sup> Section X Annex X-1 defines Metering Equipment as 'Meters, measurement transformers (voltage, current or combination units), metering protection equipment including alarms, circuitry, associated Communications Equipment and Outstations and wiring'.

<sup>7</sup> i.e. new Meter types, new Outstation types or new (integral Outstation) Meter types.

<sup>8</sup> Usually the Meter or Outstation manufacturer.

<sup>9</sup> Under the [BSC Baseline Statement](#), the BSC Panel has delegated responsibility for BSCP601 to its BSC Panel Committees, the Supplier Volume Allocation Group and the Imbalance Settlement Group. Under BSCP601, since [CP1174](#) was implemented in June 2007, if compliance testing or protocol approval is successful, Elexon can issue a Certificate of Compliance or Protocol Approval to an applicant. Prior to June 2007 Elexon had to seek a decision from the relevant BSC Panel Committee before issuing a Certificate of Compliance or Protocol Approval.

<sup>10</sup> Usually an HHDC or the CDCA, but it could be the Meter or Outstation manufacturer.

<sup>11</sup> Usually an HHDC or the CDCA, as the applicant.