

4.3 CP Form

Change Proposal – BSCP40/02	CP No: CP1527 <i>Version No: 2.0</i> <i>(mandatory by BSCCo)</i>												
<p>Title (mandatory by originator) ‘Increase the minimum data storage capacity for Settlement Outstations and mandate specific selectable integration periods for Metering Codes of Practice’</p>													
<p>Description of Problem/Issue (mandatory by originator)</p> <p>A Settlement Outstation is a device which stores Half Hourly (HH) metered data (or pulse counts) from one, or more, Settlement Meters. Data Collectors retrieve the HH metered data (or pulse counts) from these Outstations for use in Settlement¹.</p> <p>The data storage capacity of an Outstation is limited by the amount of memory that can be allocated to data storage. Once the data storage capacity limit is reached new metered data overwrites the oldest metered data.</p> <p>The minimum requirements for Settlement Outstations are defined in the relevant metering Codes of Practice (CoPs).</p> <p>The Association of Meter Operators (AMO) (the Proposer) raised Issue 80 ‘Increase in minimum data storage requirements within the relevant Metering CoPs’ on 16 April 2019. The Proposer believes that the minimum data storage requirements for Settlement Outstations within the metering CoPs are now 30 years old and reflect the cost of memory and equipment at that time. Meter Operator Agents (MOAs) regard this requirement as unreasonably low. Low memory can result in metered data being overwritten where there are communication line faults and/or sites are difficult to access in order to carry out hand held reads. The Proposer notes that most of the available Settlement Outstations already store far more data than the current minimum data storage capacities required by the CoPs, which are as follows:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Metering CoP</th> <th style="text-align: left;">Minimum data storage capacity²</th> </tr> </thead> <tbody> <tr> <td>CoP1 – circuit rated capacity exceeding 100MVA</td> <td>10 days</td> </tr> <tr> <td>CoP2 – circuit rated capacity not exceeding 100MVA</td> <td>10 days</td> </tr> <tr> <td>CoP3 – circuit rated capacity not exceeding 10MVA</td> <td>20 days</td> </tr> <tr> <td>CoP5 – energy transfers with a maximum demand up to 1MW</td> <td>20 days</td> </tr> <tr> <td>CoP10 – energy for low voltage circuits up to 100kW</td> <td>20 days</td> </tr> </tbody> </table>		Metering CoP	Minimum data storage capacity ²	CoP1 – circuit rated capacity exceeding 100MVA	10 days	CoP2 – circuit rated capacity not exceeding 100MVA	10 days	CoP3 – circuit rated capacity not exceeding 10MVA	20 days	CoP5 – energy transfers with a maximum demand up to 1MW	20 days	CoP10 – energy for low voltage circuits up to 100kW	20 days
Metering CoP	Minimum data storage capacity ²												
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<p>The view of the WG is that the current minimum data storage requirements for Settlement Outstations are low and sometimes this causes an issue where an Outstation cannot be read for a period longer than the data storage capacity of the Outstation, resulting in estimated data entering</p>													

¹ Pulse counts are converted into energy values using the relevant Pulse Multiplier from the Meter Technical Details.

² per Outstation channel

Settlement.

The WG noted that Ofgem is looking at possibly changing the Imbalance Settlement Period (ISP) to 15 minutes as part of the [Clean Energy Package](#). The Proposer believes that a move to a 15 minutes ISP would result in many Outstations needing to be replaced, in the run up to the move to a 15 minutes ISP, if they could not comply with either the current minimum data storage requirements. ELEXON understands that the 15 minute ISP is mandatory from 1 January 2021 unless Ofgem grants an exemption or delay.

The Proposer believes the industry should prepare for the move to a 15 minutes ISP so that less Outstations require replacing in the future, meaning they can simply be reprogrammed from 30 minutes integration periods to 15 minutes integration periods (either remotely or on site).

The WG concluded that the current minimum data storage capacity requirements for Settlement Outstations should be increased.

In addition, the WG noted that CoPs 1 and 2 are the only CoPs that require selectable integration periods (i.e. 30, 20, 15, 10 and 5 minutes), yet there is currently no test for this requirement in [BSCP601](#)³.

CoPs 3, 5 and 10 only require 30 minutes integration periods therefore existing CoP3, CoP5 and CoP10 compliant Outstations may need replacing if they cannot be reprogrammed to 15 minutes integration periods.

Proposed Solution (mandatory by originator)

This Change Proposal proposes two changes:

- Increase the minimum data storage capacity for Settlement Outstations to 250 days per Outstation channel, at 30 minutes integration periods, for CoPs 1, 2, 3, 5 and 10; and
- Mandate specific, selectable, integration periods for CoPs 3, 5, and 10 (i.e. 30, 20, 15, 10 and 5 minutes) and add a test for this requirement (and for CoPs 1 and 2) into BSCP601.

Justification for Change (mandatory by originator)

The Proposer believes increasing the minimum data storage requirements for Settlement Outstations has two main benefits. Firstly, it would reduce the risk of estimated data entering Settlement caused by metered data being overwritten when the Outstation data storage capacity is exceeded. Secondly, it would be a proactive step in supporting a potential future move to 15 minutes Settlement as halving the integration period will double the amount of metered data an Outstation would have to store.

The bases for increasing the minimum data storage capacities for Settlement Outstations are:

- all new and significantly modified Outstations are more resilient to data loss in the event of communications/access issues;

³ 'Metering Protocol Approval and Compliance Testing'

- a capacity of 250 days will allow for 125 days at 15 minutes integration periods per Outstation channel should a 15 minutes ISP be implemented and require Outstations to have 15 minutes integration periods, i.e. it will cover four months of data storage to align with the four month Final Reconciliation (RF) Run proposed in the Market-wide Half Hourly Settlement (MHHS) report by the Design Working Group (DWG);
- some Outstation manufacturers are currently producing Outstations that meet the proposed requirements (17 Outstations would already meet the requirement);
- the WG did not believe the costs associated with increasing the minimum data storage requirement for Settlement Outstations would be significant;
- changing the CoPs will improve and simplify industry standards; and
- this change will ensure data storage requirements for Settlement Outstations keep pace with technology and are not barriers to future innovation.

The bases for mandating specific, selectable, integration periods (i.e. 30, 20, 15, 10 and 5 minutes) for CoPs 3, 5, and 10, to align with CoPs 1 and 2, and adding a test for this requirement into BSCP601 (for CoPs 1, 2, 3, 5 and 10) are:

- it will ensure consistency across all the CoPs;
- it will future proof CoPs 3, 5 and 10 if 15 minutes integration periods are required; and
- confirming this requirement, as part of the BSCP601 process, for CoPs 1, 2, 3, 5 and 10 Outstations will provide assurance that all Outstations do indeed comply with this requirement.

To which section of the Code does the CP relate, and does the CP facilitate the current provisions of the Code? (mandatory by originator)

Section L 'Metering'

Estimated Implementation Costs (mandatory by BSCCo)

£240 (one ELEXON Working Day) of effort to implement the necessary document changes.

Configurable Items Affected by Proposed Solution(s) (mandatory by originator)

CoP1 'Code of Practice for the metering of circuits with a rated capacity exceeding 100MVA for Settlements purposes'

CoP2 'Code of Practice for the metering of circuits with a rated capacity not exceeding 100MVA for Settlements purposes'

CoP3 'Code of Practice for the metering of circuits with a rated capacity not exceeding 10MVA for Settlements purposes'

CoP5 'Code of Practice for the metering of energy transfers with a maximum demand of up to (and including) 1MW for Settlement purposes'

CoP10 'Code of Practice for metering of energy via low voltage circuits for Settlement

<p>purposes'</p> <p>BSCP601 'Metering Protocol Approval and Compliance Testing'</p>
<p>Impact on Core Industry Documents or System Operator-Transmission Owner Code (mandatory by originator)</p> <p>None</p>
<p>Related Changes and/or Projects (mandatory by BSCCo)</p> <p>Issue 80 'Increase in minimum data storage requirements within the relevant Metering CoPs'</p>
<p>Requested Implementation Date (mandatory by originator)</p> <p>June 2021 (12 months lead time)</p> <p>Reason:</p> <p>The Issue 80 WG recommends a 12 month implementation lead time. Some Outstation manufacturers will need time to redesign existing or develop new Outstation types to meet the new requirements so this should feed into the implementation timescale for a CPXXXX.</p>
<p>Version History (mandatory by BSCCo)</p> <p>1.0</p>
<p>Originator's Details:</p> <p><i>BCA Name – Fungai Madzivadondo</i></p> <p><i>Organisation - ELEXON</i></p> <p><i>Email Address – Fungai.Madzivadondo@elxon.co.uk</i></p> <p><i>Telephone Number – 020 7380 4341</i></p> <p><i>Date – 28 January 2020</i></p>
<p>Attachments: No</p>