

Final CP Report

CP1507 'Updates to BSCP520 to align with working practices and UMSUG recommendations'

ELEXON



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About This Document

This document is the CP1507 Final Change Proposal (CP) Report which ELEXON has published following the final decision from the Supplier Volume Allocation (SVG) to approve CP1507.

There are four parts to this document:

- This is the main document. It provides details of the solution, impacts, costs, and approved implementation approach. It also summarises the SVG's final views and the views of respondents to the CP Consultation.
- Attachment A contains the approved redlined changes to deliver the CP1507 solution.
- Attachment B contains the full responses received to the CP Consultation.
- Attachment C contains the CP1507 proposal form

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1 Why Change?

Background

What are Unmetered Supplies under the BSC?

All energy transfers at points of connection and/or supply via circuits connected to the Distribution Network shall be metered, except in a limited number of defined circumstances set out in the [Electricity \(Unmetered Supply\) Regulations 2001 \(Statutory Instrument 2001/3263\)](#). These exceptions, known as Unmetered Supplies (UMS), are at the discretion and approval of the Unmetered Supplies Operator (UMSO) of the relevant Licensed Distribution System Operator (LDSO).

An UMS means a supply of electricity to a particular inventory of equipment in respect of which a LDSO has issued an Unmetered Supply Certificate. For example, this equipment could be any electrical equipment that draws a current and is connected to the Distribution Network without a meter, e.g. street lights, traffic signs, zebra crossings, etc.

The Balancing and Settlement Code (BSC) and [BSC Procedure \(BSCP\) 520 'Unmetered Supplies Registered in SMRS'](#) set out how the energy used by UMS equipment is calculated and applied in Settlement.

Unmetered Supplies Operator (UMSO)

The UMSO is part of the LDSO, commonly known as the Distribution Business or Network Operator. The UMSO is responsible for looking after all of the UMS on its network. The UMSO makes new connections and decides what equipment is suitable for treatment as an UMS. The UMSO provides a summarised inventory to the Meter Administrator (MA) for Half Hourly (HH) traded UMS or calculates an Estimated Annual Consumption (EAC) for Non HH (NHH) traded UMS.

Unmetered Supplies User Group (UMSUG)

The UMSUG is an expert group reporting to the SVG, advising it on the UMS arrangements under the BSC. Its work includes reviewing Charge Code applications, advising on changes to the relevant BSC subsidiary documents (e.g. to BSCP520 'Unmetered Supplies Registered in SMRS'), the resolution of issues and new developments relating to UMS.

BSCP520 'Unmetered Supplies Registered in SMRS'

The requirements for UMS registered in a Supplier Meter Registration Service (SMRS) are set out in BSCP520. The BSCP states that metering data for Settlement purposes shall be derived utilising either: (1) an Equivalent Meter (EM) providing HH data; or (2) an EAC per Metering System Identifier (MSID), with an appropriate Profile Class and Standard Settlement Configuration (SSC).

There are two types of Equivalent Meters:

- **Passive Meters** – which allocate the unmetered consumption across the HH periods by relating annual burning hours to the daily time of sunrise and sunset; and



Meter Administrator (MA)

The MA is responsible for providing HH consumption data into Settlement. This is the consumption of a particular Customer in kWh, for each half hour of every day. The Supplier will appoint the MA for Settlement purposes.



Supplier Meter Registration Service (SMRS)

The SMRS is the service provided or to be provided by a LDSO for the registration of Metering Systems at Boundary Points on its Distribution System(s) and its Associated Distribution System(s) (if any), in accordance with the Master Registration Agreement.

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- **Dynamic Meters** – which allocate the unmetered consumption across the HH periods by reference to the operation of a number of photoelectric cells (Photo Electric Control Unit or 'PECU' arrays) or by using actual switching times reported by a Central Management System (CMS).

What are Central Management Systems?

CMS are dynamic controls which manage the electrical load of UMS equipment that can operate at multiple on/off times and/or dimming levels. A CMS records these events, which the MA then uses to calculate consumption data for Settlement. This is a form of dynamic HH Settlement.

Different CMS designs operate in different ways. Some only provide an instruction to the controlled equipment and assume the equipment reacts to the instruction. Others receive feedback from the controlled equipment. Some designs measure the energy consumed and return information which reflects the actual consumption.

What is the issue?

The UMSUG has identified various issues with BSCP520.

Need for obligations on UMSOs to support the new measured CMS arrangements

The UMSUG and the SVG have developed a new subset of the [CMS arrangements](#) to cater for electric vehicle (EV) 'slow' charging. The UMSUG and SVG have already made changes to the [Operational Information Document](#) (OID) to provide guidance on these new 'measured CMS' (mCMS) arrangements, which use feedback from an active measuring device ([SVG paper 206/04](#)).

As part of these arrangements, the SVG has agreed that UMSOs should use separate Metering System IDs (MSIDs) for any EV charge points within their inventories of unmetered Apparatus. This will facilitate any potential future requirements to allocate different Line Loss Factors to these MSIDs, or to report EV charge point consumption. BSCP520 should therefore include this new requirement on UMSOs.

Lack of timescales on UMSOs' inventory validation process

BSCP520 Sections 3.1 and 3.2 do not currently state any timescales in which an UMSO should validate a Customer's submitted inventory of UMS Apparatus. The BSC Auditor has highlighted this in [Market Issue 3781](#).

Scope for further clarification regarding receipt of Market Domain Data

BSCP520 Section 3.10 describes how UMSOs and MAs can optionally request Market Domain Data (MDD) data flows from the Supplier Volume Allocation Agent (SVAA). UMSOs and MAs do not automatically receive MDD data flows from the SVAA. Instead, they download UMS-specific MDD items from the BSC Website. For example, UMS Charge Codes and Switch Regimes form part of MDD but are not included in the data flows.

ELEXON publishes these in spreadsheet form and notifies UMSOs/MAs of changes to them through MDD Circulars.

UMSOs and MAs have therefore queried the requirement in step 3.10.3 for them to send acknowledgement to the MDD Manager (a function of the SVAA) on receipt of MDD. The BSC Auditor also highlighted this in Market Issue 3781.

Existing step 3.10.3 only requires an UMSO or MA to send acknowledgement if they have specifically requested to receive MDD data flows from the SVAA. However, the BSC Auditor has suggested that there is scope to make this clearer and that, specifically, UMSOs and MAs do not need to acknowledge receipt of MDD Circulars.

Unnecessary requirement for MAs to provide UMSOs with list of missing CMS Unit References

BSCP520 Section 4.6.3.3 describes MAs' obligations in relation to Dynamic Meters that use CMS Data. It currently requires MAs to provide both UMSOs and Customers with an exception list of any CMS Unit References that are reported in the control file but are missing from the operational event log. The UMSUG believes that UMSOs do not require or use this report regularly (if at all), because it already goes to the Customer.

Scope for clarifications of MA obligations relating to Dynamic Meters

The UMSUG believes there is scope to add extra clarity to certain MA obligations specified in BSCP520 Sections 4.6.3.2 and 4.6.3.3, to align with existing working practice.

Other 'housekeeping' issues

BSCP520 Section 1.2.1(q) sets out the types of UMS information that UMSOs must validate against the OID and its associated spreadsheets. It does not currently include Variable Power Switch Regimes, although these should also be validated.

There are various references throughout BSCP520 to the EM Output File Format being in Section 4.5.4. These cross-references are incorrect and should be to Section 4.6.4.

Approved solution

The UMSUG recommends the following amendments to BSCP520, as displayed in the table below. This section is aimed to be read in parallel to the redlined BSCP520 document in Attachment A.

| BSCP520 Section(s) | Update Proposed |
|--------------------|--|
| 1.7.1 | <ul style="list-style-type: none"> Define the acronym 'mCMS' (measured Central Management System). |
| 1.7.2 | <ul style="list-style-type: none"> Define the terms 'Variable Power Switch Regime' and 'measured Central Management System'. |
| 1.2.1 | <ul style="list-style-type: none"> Include an obligation on UMSOs, in (q), to validate Variable Power Switch Regimes against the OID and associated spreadsheets. Introduce a new obligation on UMSOs (in the list of UMSO responsibilities) to ensure that MSIDs and inventory data for mCMS are kept separate from, and are not combined with, MSIDs or inventories for other UMS Apparatus. |
| 1.6 | <ul style="list-style-type: none"> Add BSCP509 'Changes to Market Domain Data' to the list of 'Associated BSC Procedures'. |
| 3.1 and 3.2 | <ul style="list-style-type: none"> Introduce a 15 Working Day (WD) timescale on UMSOs to validate new and amended UMS inventories under Sections 3.1 and 3.2 respectively.¹ |
| 3.10 | <ul style="list-style-type: none"> Add the words 'data flows' to relevant steps in Section 3.10, to clarify that these only relate to MDD data flows. Clarify the existing footnote, to more clearly distinguish between this process (which only covers MDD data flows) and Section 3.12 (which covers UMS-specific MDD items that are not included in the data flows). |
| 3.10.2 | <ul style="list-style-type: none"> Remove the existing reference to 'MDD Circular', to avoid confusion over whether UMSOs and MAs need to acknowledge receipt of the MDD Circulars issued by ELEXON. Clarify that the SVAA only sends MDD data flows to UMSOs and MAs on request. |
| 3.12 | <ul style="list-style-type: none"> Add a requirement on ELEXON, to notify UMSOs and MAs of approved Charge Codes and Switch Regimes via MDD Circular in accordance with BSCP509 (reflecting existing practice). Apply similar UMSO/MA obligations to those which currently appear in 3.10 (for the data flows) regarding use of MDD (for the non-data-flow MDD items). |
| 4.6.3.2 | <ul style="list-style-type: none"> Clarify that it is the MA who determines the warning level above which the Dynamic Meter flags any time-keeping drift in the PECU array. |

¹ The UMSUG believed this is the maximum timescale that should be required, although a minority of members believed that the validation process could be completed quicker in 10WD. At the UMSUG's request, ELEXON included a question in the CP Consultation seeking views on whether the 15WD timescale is appropriate. See Section 6 for the responses.

| BSCP520 Section(s) | Update Proposed |
|-----------------------|--|
| 4.6.33 | <ul style="list-style-type: none"> Clarify in (c) that the existing reference to reporting the CMS Unit Reference in a 'file' means in a log file. Amend so that MAs continue to provide the report of missing CMS Unit References to Customers each month but only to UMSOs on request. |
| 4.6.4 | <ul style="list-style-type: none"> Amend various erroneous cross-references to the EM Output File Format, so that these correctly point to Section 4.6.4. |

Proposer's rationale

These changes will support, clarify and remove potential inefficiencies in the BSC's UMS arrangements – including addressing an existing BSC Audit Market Issue.²

At its meeting on 1 March 2018, the UMSUG recommended that ELEXON raises this CP (see [UMSUG papers 122/01 and 122/02](#)). The changes to Sections 3.10 and 3.12 were added subsequently following discussion with the BSC Auditor; the UMSUG reviewed these by correspondence.

In addition, the specific EV charging changes were presented to the SVG at its meeting on 27 March 2018 ([SVG paper 206/04](#)). The SVG agreed that ELEXON should progress these through a CP.

Approved redlining

Attachment A contains the approved redlining to BSCP520.

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² The remaining part of Market Issue 3781 relates to audit trails. The UMSUG believes that there is no obvious case for action in this area. ELEXON, with the BSC Auditor, will use the next BSC Audit to monitor and clarify any issues.

3 Impacts and Costs

Central impacts and costs

Central impacts

CP1507 will require changes to BSCP520. No BSC System changes are required for this CP and there will be no impacts on BSC Agents.

| Central Impacts | |
|---|--|
| Document Impacts | System Impacts |
| <ul style="list-style-type: none">BSCP520 | <ul style="list-style-type: none">None |

Central costs

The central implementation costs for CP1507 will be approximately £240 (one ELEXON working day of effort) to make the required document changes.

BSC Party & Party Agent impacts and costs

Participant impacts

We do not anticipate any impact on MAs' existing working practices since the changes simply confirm/clarify these. The consultation response received from an MA did not detail any impacts.

Changes to UMSOs' (Distributors') working practices will be required. Responding Distributors noted that their processes and associated documentation will have to be modified to accommodate the changes; however they envisaged the impact to be limited.

After we received the consultation responses, we had further discussions with two Distributors (one of whom did not respond to the consultation) about the potential impacts of the new mCMS requirement on their systems. You can find further details in Section 6.

We received a consultation response from a Supplier who stated a process and possible system impact, depending on whether IT changes are required for MDD updates. We have confirmed to the respondent that the CP only clarifies (and does not change) the existing ways in which UMSOs and MAs receive MDD updates, and that the CP has no impact on Suppliers.

| BSC Party & Party Agent Impacts | |
|---------------------------------|---|
| BSC Party/Party Agent | Impact |
| UMSO | Changes to working practices and associated documentation. Possible system changes to accommodate the mCMS requirement. |

Participant costs

Distributors outlined that they will have one-off costs to update internal processes and documents, which they were unable to quantify at this time. One stated that there are likely to be minor marginal increases in terms of ongoing management of inventories.

As above, we received one response from a Supplier who indicated possible system costs depending on whether IT changes are required for MDD updates. We have confirmed that no IT updates are required.

4 Implementation Approach

Approved Implementation Date

CP1507 will be implemented on **1 November 2018** as part of the November 2018 BSC Release.

This is the next available Release that can include this CP.

One Distributor who responded to the consultation initially disagreed with the proposed Implementation Date, stating that they wished to see a longer implementation timeframe for the mCMS element of the proposal. ELEXON discussed this further with the respondent, and also with another Distributor who did not respond to the consultation but subsequently contacted ELEXON. Following these discussions, both Distributors agreed that a November 2018 Implementation Date is suitable. More information can be found in Section 6.

SVG's initial views

CP1507 was presented to the SVG on 29 May 2018 ([SVG208/04](#)) for information. The SVG noted the proposed progression timetable. The SVG had no comments and did not provide any additional questions to be included in the CP Consultation.

6 Industry Views

This section summarises the responses received to the CP Consultation. You can find the full responses in Attachment B.

There were seven responses to the CP Consultation.

| Summary of CP1507 CP Consultation Responses | | | | |
|---|-----|----|---------------------------|-------|
| Question | Yes | No | Neutral/ No Comment | Other |
| Do you agree with the CP1507 proposed solution? | 7 | 0 | 0 | 0 |
| Do you agree that the draft redlining delivers the CP1507 proposed solution? | 6 | 1 | 0 | 0 |
| Do you agree that the proposed 15WD timescale for UMSOs to validate new and amended UMS inventories is appropriate? | 5 | 1 | 0 | 1 |
| Will CP1507 impact your organisation? | 6 | 1 | 0 | 0 |
| Will your organisation incur any costs in implementing CP1507? | 3 | 3 | 0 | 0 |
| Do you agree with the proposed implementation approach for CP1507? | 7* | 0* | 0 | 0 |
| Do you have any further comments on CP1507? | 2 | 5 | 0 | 0 |

*One respondent originally disagreed with the Implementation Date, but now agrees it is suitable. See below for more details.

Proposed solution

All seven respondents agreed with the proposed solution, supporting the rationale given in the consultation document.

Six of the seven respondents agreed that the draft redlining delivers the proposed CP1507 solution. The one who disagreed did so because they disagreed with the solution's proposed 15WD timescale for inventory validation – see below.

Five of the seven respondents (all Distributors) agreed with the proposed 15WD timescale on the UMSO to validate a customer's inventory. One respondent (a Supplier) disagreed and believed a 10WD timescale would support their Supplier risks better. One respondent (an MA) answered 'yes and no'. They believed that the proposed 15WD timescale is better than the current undefined timescale, but that it should be possible to have a timescale of less than 10WD and ideally 5WD. They commented that this would minimise delays to updated inventories being used in Settlement and therefore the need for backdating inventories (which causes revised Settlement data and customer rebilling).

This mirrors the UMSUG's previous discussion, in which ELEXON originally proposed a 10WD timescale. Distributor members of the UMSUG believed that 15WD is necessary. One commented that inventory submissions may not be evenly spaced and, for example,

the UMSO might receive a raft of submissions at the start of a month. Other non-Distributor members of the UMSUG believed that the timescale could be shorter.³

In the absence of any new evidence from consultation respondents that it is possible for UMSOs (Distributors) to undertake the activity in less than 15WD, ELEXON recommends keeping this proposed timescale. We note that the Audit Issue arose because the current BSCP timescale is undefined and thus open-ended.

Impacts

You can find a summary of the impacts and costs in Section 3. After the consultation, ELEXON had further discussions with two Distributors on their potential system impacts and you can find more information below.

Implementation

One respondent (a Distributor) originally disagreed with the Implementation Date but now agrees it is suitable. You can find more information on ELEXON's discussions with this respondent, and with another Distributor who did not respond to the consultation, below.

Post-consultation discussion with two Distributors

ELEXON contacted the Distributor who initially disagreed with the proposed Implementation Date of the November 2018 BSC Release. The respondent clarified that the SVG's requirement to use separate MSIDs for mCMS required potential changes to their systems, and they were concerned that the timescale for these was incompatible with a November 2018 implementation. However, following further internal discussion within their organisation, the respondent later contacted ELEXON to confirm that a November 2018 Implementation Date is suitable.

Another Distributor (UK Power Networks), who did not respond to the consultation, contacted ELEXON after the consultation had closed. This Distributor was also concerned that the mCMS requirement might require changes to their systems that were incompatible with a November 2018 implementation. As this Distributor uses the same service provider as the one above, we queried whether this was the case. They later confirmed to ELEXON that a November 2018 Implementation Date is suitable for CP1507, as at this point they will still be operating their current system. They clarified that their changes relate to a future internal system deployment in 2019 (for which they have time to implement the requirement).

The Distributor who did not respond to the consultation was concerned that requiring separate MSIDs for mCMS may result in customers incurring extra costs from their Supplier and MA for the additional MSID. ELEXON responded that this depends on what commercial model is agreed between the EV charge point provider and local authority, for example:

- whether it is the manufacturer or local authority who operates the charge points, and is therefore the customer; and

³ See [minutes](#) of UMSUG meeting 121 in October 2017.

- whether all the charge points in the local authority's area have the same, or different, Suppliers (as multiple Suppliers would require multiple MSIDs).

ELEXON notes that all currently-approved mCMS are operated by the charge point manufacturers, which already requires the use of separate MSIDs. The CP1507 requirement only applies where a local authority chooses to operate the charge points itself, in which case the CP would require it to associate these with a separate MSID to keep them distinct from street lights and other UMS equipment. We believe that the cost of the additional MSID would be marginal.

Comments on the proposed redlining

One respondent (an MA) proposed including a further housekeeping change within the CP redlining. They commented that the current heading of Section 4.6.1 in BSCP520 ('Hardware – PECU Arrays') does not match the following text, which is about the Equivalent Meter calculation, and should be moved to just before the existing 4.6.1.1 heading ('PECU Array Siting Procedure'). We have moved this heading accordingly and added a new 'Equivalent Meter – calculation' heading to replace it.

An UMSUG member (also an MA) identified, outside of the consultation process, some other existing housekeeping errors in BSCP520. We have taken the opportunity to correct these in the post-consultation version of the redlining. These relate to removing existing duplicated text in Section 1.3.8 and correcting other existing incorrect cross-references to Section 4.5 (which should be to Section 4.6).

You can see all the approved redlined changes in Attachment A.

SVG's final views

ELEXON invited the SVG to approve CP1507 at its meeting on 31 July 2018 ([SVG 210/02](#)) for implementation in the November 2018 BSC Release.

The Distribution System Operator (DSO) Member commented that the window between approval of the CP and its proposed implementation was tight, considering that they believed system changes would be needed for some UMSOs (Distributors). ELEXON noted that, after discussion, all the Distributors who responded to the consultation – plus the one who contacted ELEXON after the consultation closed – had confirmed that they could make the proposed Implementation Date.

The DSO Member advised that there were different views within their organisation on this. They advised that they would prefer to be able to implement an automated process to deliver the CP's requirement to keep EV charge points on separate MSIDs. They commented that they would work around any issues in order to implement the CP.

The DSO Member commented that they believed other Distributors would have similar issues. ELEXON reiterated that all the Distributors it had heard from had confirmed that the Implementation Date was feasible. It noted that this was the date recommended by the UMSUG, which includes UMSOs.

ELEXON noted that the proposed requirement for separate MSIDs had originated from the SVG's concerns about what might happen if a charge point provider ceased to operate. It advised that the requirement would only apply where a local authority is operating the EV charge points, which is not currently the case for any existing or planned charge points. The DSO Member commented that this could change between now and November 2018. ELEXON suggested that, if that was a risk, it would seem like a reason not to delay implementation of the requirement.

Final decision

The SVG has:

- **AGREED** the amendments to the proposed redlining for [Balancing and Settlement Code Procedure \(BSCP\) 520 'Unmetered Supplies Registered in SMRS'](#) for CP1507 made following the CP Consultation;
- **APPROVED** the proposed changes to BSCP520 for CP1507; and
- **APPROVED** CP1507 for implementation on 1 November 2018, as part of the November 2018 BSC Release.

Appendix 1: Glossary & References

Acronyms

Acronyms used in this document are listed in the table below.

| Acronyms | |
|----------|---------------------------------------|
| Acronym | Definition |
| BSC | Balancing and Settlement Code |
| CMS | Central Management System |
| CP | Change Proposal |
| CPC | Change Proposal Circular |
| DSO | Distribution System Operator |
| EAC | Estimated Annual Consumption |
| EM | Equivalent Meter |
| EV | Electric Vehicle |
| HH | Half Hourly |
| LDSO | Licensed Distribution System Operator |
| MA | Meter Administrator |
| mCMS | Measured Central Management System |
| MDD | Market Domain Data |
| MDDM | Market Domain Data Manager |
| MSID | Metering System Identifier |
| OID | Operational Information Document |
| PECU | Photo Electric Control Unit |
| SMRS | Supplier Meter Registration Service |
| SSC | Standard Settlement Configuration |
| SVAA | Supplier Volume Allocation Agent |
| SVG | Supplier Volume Allocation Group |
| UMS | Unmetered Supply(ies) |
| UMSO | Unmetered Supplies Operator |
| UMSUG | Unmetered Supplies User Group |

External links

A summary of all hyperlinks used in this document are listed in the table below.

All external documents and URL links listed are correct as of the date of this document.

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| External Links | | |
|----------------|---|---|
| Page(s) | Description | URL |
| 2 | The Electricity (Unmetered Supply) Regulations | http://www.legislation.gov.uk/uksi/2001/3263/contents/made |
| 2, 3 | BSCPs page on the ELEXON website | https://www.elexon.co.uk/bsc-and-codes/bsc-related-documents/bscps/ |
| 3 | Central Management Systems page on the ELEXON website | https://www.elexon.co.uk/operations-settlement/unmetered-supplies/central-management-systems/ |
| 3 | Operational Information Document | https://www.elexon.co.uk/guidance-note/operational-information-document/ |
| 3 | BSC Audit page on the ELEXON website | https://www.elexon.co.uk/reference/performance-assurance/performance-assurance-techniques/bsc-audit-performance-assurance-framework/ |
| 3, 9 | SVG 206 page on the ELEXON website | https://www.elexon.co.uk/meeting/svg-206/ |
| 6 | UMSUG 122 page on the ELEXON website | https://www.elexon.co.uk/meeting/umsug-122/ |
| 14 | SVG 210 page on the ELEXON website | https://www.elexon.co.uk/meeting/svg-210/ |