

CP1530 'Introduction of a formalised process for the validation of measurement transformer ratios by Elexon'



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About This Document

This document is the CP1530 Final Change Proposal (CP) Report, which Elexon has published following the final decision from the Supplier Volume Allocation Group (SVG) to unanimously approve CP1530.

There are six parts to this document:

- This is the main document. It provides details of the solution, impacts, costs, and proposed implementation approach. It also summarises the SVG's previous views on the proposed changes and the responses to both the first and second CP1530 consultations, along with the final decision to approve CP1530.
- Attachments A-B contain the proposed redlined changes to deliver the CP solution.
- Attachment C contains the list of the valid transformer set complied by Elexon
- Attachment D contains the consolidated responses to the first CP1530 consultation.

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- Attachment E contains the consolidated responses to the second CP1530 consultation.

Progression history of CP1530

CP1530 was first issued for consultation on 14 July 2020, with a response deadline of 10 August 2020. An update was provided to the SVG on 1 September 2020 on the outcome of the first CP1530 consultation. Elexon explained that the CP1530 consultation responses highlighted the need for amendments to the CP1530 solution, some of which were material to the solution. Therefore, Elexon recommended CP1530 be re-issued for a second industry consultation.

In consideration of the first Assessment Report, the SVG deferred its decision on whether to issue CP1530 for a second consultation, asking for further consideration of the solution before a decision on re-consultation was made.

Elexon presented a draft Assessment Report to SVG at its meeting on 6 October, which addressed industry's and SVG's comments. The SVG agreed to issue CP1530 for a second consultation, which was published on 12 October 2020, with responses due by 6 November 2020.

CP1530 was unanimously approved by the SVG at its meeting on 1 December 2020 where it considered the second Assessment Report that outlined respondent's views to the second industry consultation.

Why change?

Distribution System Operators (DSOs) currently provide the transformer ratios for measurement transformers as free text, where any value can be entered, via the Data Transfer Network (DTN)¹. There is currently no list of valid transformer ratios nor a process for the validation of the transformer ratios submitted by DSOs.

Approved Solution

This CP will create a national valid list of transformer ratios, published on the Elexon Portal for use by DSOs and Meter Operator Agents (MOAs). It will also introduce a process where DSOs and MOAs submit proposed changes to the list to Elexon. On receipt, Elexon will check that the submitted ratios meet the valid format and establish a list of valid transformer ratios, to be used by DSOs and MOAs, on the [Elexon Portal](#).

The solution to CP1530 requires a corresponding change to the Data Transfer Catalogue (DTC), which is under the governance of the [Master Registration Agreement](#) (MRA) to oblige DSOs and MOAs to only use ratios included in the valid set published on the Elexon Portal. [DTC CP 3576 - Introduction of Valid Sets for J0454 \(CT Ratio\) and J0455 \(VT Ratio\)](#) has been raised for this purpose. The MRASCo Development Board (MDB) has deferred making a decision on DTC CP3576 until such time that SVG has made a decision on CP1530.

What has changed since the time CP1530 was first raised?

The proposed changes that were made following the first industry consultation period are:

- The DSO processes have been mirrored for MOAs, specifically:
 - BSCP514 has been amended to outline the process that a MOA needs to take if it receives a transformer ratio value that is invalid, i.e. not on the valid set held by Elexon;
 - BSCP514 has been amended to allow MOAs to request amendments to the valid list along with DSOs;
- BSCP515 has been amended to outline the process an DSO needs to take if it receives a transformer ratio value that is invalid;
- The valid list of valid transformer ratios has been changed to a national list rather than Distributor ID based list, as initially proposed;
- An assurance step has been added to the transformer ratio validation process to give Market Participants a grace period prior to the removal of a ratio from the valid list; and



DSO vs LDSO

A Licensed Distribution System Operator" or "LDSO means a Party which holds a Distribution Licence in respect of distribution activities in Great Britain, acting in that capacity.

Whereas, a DSO means a LDSO or any other Party which distributes electricity for the purposes of section 4(1)(bb) of the Act (as inserted or to be inserted by section 28 of the Utilities Act 2000) through a Distribution System, acting in that capacity.

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¹ Transformer ratios are detailed via two data items, J0454 and J0455, which represents the CT and VT ratios respectively.

- Validation checks, to provide assurance that the valid list that will be established under CP1530 is correctly adopted by the relevant Parties, will be done as part of the 2021-2022 Audit process.

The proposed changes made since the second industry consultation period are:

- Minor amendments to add clarity in the CP1530 redlining. We have made amendments to both BSCP514 and BSCP515, including being clear that the changes to the valid list become effective when the list is published on the Elexon Portal.
- We have clarified within BSCP514 section 1.1 and BSCP515 section 4.4.1 that J0454 – CT Ratio can be and/or J0455 – VT Ratio.
- We have amended the drafting in the valid set for the 'unknown' field to lower case, for consistency with the BSCP drafting.
- We have amended the draft valid set to include further CT and VT ratios provided by market participants.

Impacts and costs

The central implementation cost for Elexon to make the required system and document changes will be approximately £9,000.

As a result of this CP and the consequential Data Transfer Catalogue (DTC) CP, DSOs and MOAs will be required to use the valid set and use the validation process if they wish to add or remove ratios from the DTC CP Implementation Date.

Suppliers are also impacted by this change as they also manage CT/VT ratios and therefore will need to make system changes.

Approved Implementation Date

The approved Implementation Date for this CP is **24 June 2021** as part of the scheduled June 2021 BSC Release. Previously, CP1530 was targeting the February 2021 Release. However, respondents to the first CP1530 consultation revealed they saw challenges with making the required systems changes to support the delivery of both the BSC and DTC CPs by February 2021.

The new Elexon Portal webpage that will host the valid list will go live in February 2021. To help Market Participants cleanse their systems of erroneous transformer ratios, Elexon will create an indicative valid list of ratios available to Market Participants in December 2020; subject to the SVG approving CP1530 at its meeting on 1 December 2020. This indicative valid list will be made available on the [Metering](#) webpage of the Elexon website, until it is published on the Elexon Portal in February 2021.

Participants wishing to amend the valid list between December 2020 and CP1530 go-live on 24 June 2021, can contact Elexon to make the amendment.

This approach will allow the initial indicative valid set of ratios to be in place between December 2020 and June 2021, for participants to cleanse their data held against the valid list. Market Participant will have a six month transition period, starting from December 2020, and will not be required to use the valid list until June 2021 when CP1530 will be

implemented. This is designed to allow Market Participants with sufficient time to implement the systems changes.

Final SVG Views

At its meeting on 1 December 2020 ([SVG238/05](#)) the SVG unanimously **approved** CP1530 including further non-material amendments made following the second industry consultation period.

What is the issue?

Historically, there have been issues with the quality of the data submitted for CT/VT ratios. The current data format limits the amount of characters that can be entered when populating the data items. The data submitted for the CT ratio is currently limited to six characters, and to ten characters for the VT ratio. However, it does not restrict the type of characters that can be entered. This allows for the transmitting of obviously erroneous values such as 'w/c' or '999'. So, whilst the data received by the DSOs and MOAs may indicate that these ratios are correct, it could have been misconfigured by technical errors.

Background

Metering Systems are comprised of measurement transformers i.e. Current Transformers (CTs) and Voltage Transformers (VTs). The ratios for these transformers are communicated between Parties via Meter Technical Detail (MTD) data flows. These ratios are instrumental in allowing a Meter to record the correct primary energy flow to or from the site. Under the [Master Registration Agreement](#) (MRA), ratios are detailed via two data items, [J0454](#) and [J0455](#), which represents the CT and VT ratios respectively.

Accurate measurement of transformer ratios is essential for the Commissioning process², which is a series of site tests and checks on Metering Equipment. This ensures that the energy flowing across a Defined Metering Point (DMP) is accurately recorded by the associated Metering System.



What are Meter Technical Details?

This is all technical details (including Outstation channel mapping) of a Metering System required to enable metered data to be collected and correctly interpreted from that Metering System.



What is the MRA

The MRA is an Agreement that sets out the rules for the electricity Supplier registration process for the GB Market. It sets out the terms for the provision of Metering Point Administration Services (MPAS Registrations), and procedures for Change of Supplier for premise/ metering point.

² Commissioning is a process (i.e. a series of site tests and checks on Metering Equipment) to ensure that the energy flowing across a Defined Metering Point (DMP) is accurately recorded by the associated Metering System.

Approved solution

This CP will create a national list of valid transformer ratios that will be used by DSOs and MOAs. It will amend [Balancing and Settlement Code Procedure \(BSCP\) 515 'Licensed Distribution'](#) to define the process DSOs would need to follow to amend the valid list (add or removal CT/VT ratios).

The same process will be added to [BSCP514 'SVA Meter Operations for Metering Systems Registered in SMRS'](#) for MOAs to follow to also amend the valid list.

On receipt of a request to amend the valid list, Elexon will check the submitted ratios meet the valid format before adding the CT/VT ratio to the valid list, which will be published on the [Elexon Portal](#).

Where there is a request to remove a ratio from the valid list, Market Participants will be notified 10 Working Days (WDs) before it is removed from the valid list. BSCP514 will also be amended to outline a validation process for MOAs to follow if they receive a transformer ratio value that is invalid, i.e. not on the valid set held on the Elexon Portal. In such an instance, a MOA will be required to select the unknown option. This helps to promote better data quality as all unknown ratios will be reported under one value.

DTC CP 3576 will require all registrations of metering systems to use a ratio selected from the valid set.

Changes following the first CP1530 consultation

Following the [first CP1530 consultation](#), issued between 14 July 2020 and Monday 10 August, Elexon has made some changes to address comments received from respondents. As some of these changes constitute material amendment, CP1530 needed to be re-issued for a second industry consultation³. The changes were:

- The DSO processes were mirrored for MOAs, specifically:
 - BSCP514 was amended to outline the process that a Meter Operator needs to take if it receives a transformer ratio value that is invalid, i.e. not on the valid set held by Elexon;
 - BSCP514 was amended to allow MOAs to amend the valid list along with DSOs;
- BSCP515 was amended to outline the process an DSO needs to take if it receives a transformer ratio value that is invalid;
- The valid list of transformer ratios was changed to a national list rather than a Distributor ID based list, as initially proposed; and
- An assurance step was added to the transformer ratio valid transformer list amendment process. It will provide a grace period prior to the removal of a ratio

³ Paragraph 3.5.3 in [BSCP40 'Change Management'](#) allows a Panel Committee to recommend an amended CP to be re-issued to industry for consultation if a material impact is identified during the initial consultation and the committee believes a second consultation would make the solution more robust.

from the valid list. Market Participants will receive a notification prior to the removal of a ratio from the valid list. As such, Parties that would be impacted by the removal of the ratio will have sufficient lead time to amend their systems; and

- Validation checks, to provide assurance that the valid list that will be established under CP1530 is correctly adopted by the relevant Parties, will be done as part of the 2021-2022 Audit process.

The second consultation for CP1530 was published over the period 12 October 2020 to 6 November 2020. Elexon has made some amendments to the CP1530 solution following this consultation, however these amendments do not constitute a material change to the solution.

The proposed changes made since the second industry consultation period are:

- Minor amendments to add clarity in the CP1530 redlining. We have made amendments to both BSCP514 and BSCP515, including being clear that the changes to the valid list become effective when the list is published on the Elexon Portal.
- We have clarified within BSCP514 section 1.1 and BSCP515 section 4.4.1 that J0454 – CT Ratio can be and/or J0455 – VT Ratio.
- We have amended the drafting in the valid set for the 'unknown' field to lower case, for consistency with the BSCP drafting.
- We have amended the draft valid set to include further CT and VT ratios provided by market participants.

Corresponding MRA Change

Elexon has raised a corresponding MRA change to update the valid set for both affected data items. The MRA change, [DTC CP 3576](#), references the BSC managed valid set maintained by Elexon. This will ensure that Parties are obligated (under the MRA) to populate CT and VT ratios with a value that is present in the valid set. However, Elexon notes that this does not prevent DSOs (if they own the CTs/VTs) or MOAs (if the customer owns the CTs/VTs) from populating an erroneous, but valid, ratio within the dataflow. However, it does improve on the current baseline by requiring one of the valid ratios to be submitted

Measurement Transformer Ratios Analysis

As part of this change, Elexon has undertaken analysis of current measurement transformer ratios sent over the [Data Transfer Network](#) (DTN). From these data flows, we have compiled an initial suggested valid set of CT/VT ratios. Elexon issued an industry consultation on 14 March 2019 to ascertain whether this data set was an accurate representation of all valid ratios used in the market. For the past year we have been seeking to validate this information. We have received feedback from all DSOs; however, it is possible that there could be a CT/VT with an abnormal ratio which would be excluded by the valid set compiled under this Change Proposal. We expect the majority of ratios to be in the valid set; however, the valid set can be updated if an DSO or MOA wishes to provide a new set as part of the industry consultation for this CP.

Proposer's rationale

Accurate measurement of transformer ratios is essential for the Commissioning process of a Metering System. Their absence or inaccuracy may lead to erroneous data being used in Settlement. Therefore, to reduce the risk to Settlement, CT and VT ratios within data flows should be as accurate as possible.

[CP1496 'Introduction of two data flows for the Commissioning process for Half Hourly \(HH\) Supplier Volume Allocation \(SVA\) Current Transformer \(CT\) operated Metering Systems'](#)

introduced two new data flows to be used as part of the Commissioning process. Both data flows related to measurement transformer ratios. CP1496 was approved by the Imbalance Settlement Group (ISG) on 16 January 2018 ([ISG 201/02](#)) and the Supplier Volume Allocation Group (SVG) on 30 January 2018 ([SVG 204/06](#)). Members discussed the benefits of raising a CP for CT/VT ratio validation, which is the origins of this CP1530.

Approved redlining

The approved redlining to deliver the CP1530 solution can be found in Attachments A and B. This includes redlining to BSCP514 and BSCP515.

4 Impacts and Costs

BSC Party & Party Agent impacts

| BSC Party & Party Agent Impacts | |
|---------------------------------|--|
| BSC Party/Party Agent | Impact |
| DSOs and MOAs | As a result of this CP and the consequential MRA change, DSOs and MOAs will be required to make system and process changes to use the valid set and use the validation process if they wish to add or remove any ratios. |
| Suppliers and HHDC | Suppliers might need to make small system changes to ensure they are only dealing with valid ratios. |

Central impacts and costs

Central impacts

| Central Impacts | |
|--|---|
| Document Impacts | System Impacts |
| <ul style="list-style-type: none">BSCP514 and BSCP515: Changes will be required to implement the solution to this CP | Elxon Portal: A new page will be created on the Elxon Portal in the Operational Data section. The page will allow Elxon to upload a file containing the valid set of CT/VT ratios, when the valid list is updated |

Impact on BSC Settlement Risks

| Impact on BSC Settlement Risks |
|--|
| <p>The introduction of the valid list will form an additional control measure for risks:</p> <p>001 SVA Risk: Metering Point Registered Incorrectly or not at all, such that metered data is not collected or aggregated.</p> <p>002 SVA Risk: Metering System Attributes are incorrect: SVA Metering System attributes held in the Supplier Meter Registration Service (SMRS) or by any party in the Supplier Hub are incorrect.</p> <p>003 SVA Risk : SVA Metering Equipment is installed, programmed or maintained incorrectly including where Commissioning is performed incorrectly or not at all resulting in Erroneous or estimated data in Settlement.</p> <p>012 SVA Risk: Meter System Technical Details inaccurate are created incorrectly.</p> |

Impact on Core Industry Documents

Elxon has raised a corresponding MRA change, [DTC CP 3576 - Introduction of Valid Sets for J0454 \(CT Ratio\) and J0455 \(VT Ratio\)](#), to update the valid set for both for the J0454 and

J0455 data items. The MRA change will reference the BSC managed valid set maintained by Elexon.

Central costs

The central implementation cost for Elexon to make the required system and document changes will be approximately £9000.

Approved Implementation Date

CP1530 has been approved for implementation on **24 June 2021** as part of the scheduled June 2021 BSC Release.

Change to the CP1530 Implementation Date from February 2021 to June 2021

Following responses we received to the first industry consultation for CP1530 (and DTC CP3576), we changed the proposed Implementation Date for CP1530 to 24 June 2021 as part of the June 2021 BSC Release from 25 February 2021. The proposed implementation Date for the DTC CP is also June 2021.

This means the initial valid set of ratios will be in place, along with the processes to maintain them from 25 February 2021, but MOAs and DSOs will not be required to use the valid set until 24 June 2021. This will provide a four month period to update the valid set, if necessary and carry out any data cleanse.

Reason for seeking to change the Implementation Date of the DTC CP

Respondents to the first CP1530 consultation stated challenges with making the required systems changes to support the delivery of both the BSC and DTC CPs by the originally proposed Implementation Date of the 25 February 2021. As such, half of the respondents to the first CP1530 consultation did not agree with the proposed Implementation Date.

They stated constrained in making the required changes due to a combination of two factors. Firstly, they would need to carry out a large data cleansing exercise to ensure erroneous ratios are removed from their systems. Secondly, respondents noted that there are already existing metering resource challenges - due to post Covid-19 remobilisation, SMART roll out and Automated Meter Reading (AMR) installation obligations.

During the follow up calls we undertook with respondents to the first CP1530 consultation, the vast majority of respondents supported the proposal to move the Implementation Date for the DTC CP to June 2021. This would extend the period over which Market Participants can make the required system changes, as the requirement to use the valid list is set out in the DTC CP. As such, Market Participants can start their cleansing exercises once CP1530 has been approved; as they will have sight of the national valid list to cleanse their systems against but will not be required to use it until the DTC CP is implemented.

6 Initial Committee Views

Elxon presented the CP1530 Progression Paper to the SVG for information at its meeting on 7 July 2020 ([ISG233/05](#)).

The SVG noted:

- That CP1530 has been raised; and
- the proposed progression timetable for CP1530.

An SVG Member noted that Party Agents and Suppliers are impacted by this change as they also manage CT/VT ratios and therefore would need to make system changes. Elxon noted the initial list of impacts of the CP is the anticipated impacts and through the CP Consultation, we will be seeking to clarify the potential impacts and costs arising from the proposed solution for BSC Parties and Party Agents.

An SVG Member suggested that placing the obligation to submit the CT/VT data solely on DSOs might be contestable as DSOs might not always physically install the metering systems that process the CT/CV ratios; as Parties use subcontractors as part of the commissioning process. The SVG Member added some non-industry Parties can store CT/VT ratios on any connection across the country.

Elxon clarified, where the ratio is not yet known by DSOs (i.e. when another Party installs the connection) there will be an option to state the ratio as unknown as the CP will create a ratio option of 'unknown'.

An SVG Member stated the cost of the CP could not be justified against the potential benefits.

An SVG Member queried whether moving away from free text field for submitting transformer ratios was considered and thereby only allowing the submission of numeric values and data separators (i.e. forward slash). Elxon confirmed this was considered and is being done as part of the MRA change.

An SVG Member queried whether any invalid ratios have already been identified. Elxon confirmed that as part of an RFI to DSOs, a valid list had already been drafted, see attachment C. And any invalid ratios were identified and removed by the DSOs.

7 Industry Views on CP1530 – First Consultation

CP1530 was first issued for consultation on 14 July 2020, with a response deadline of 10 August 2020. This section summarises the responses received to the first CP1530 consultation.

Eight Market Participants responded to the CP1530 consultation. Two responded in the roles of Supplier and Supplier Agent and another two in the role of Supplier Agent. The remaining four respondent each provided a one response for the roles of Supplier, Trade Association, MOA and Distributor.

The below table summarises the views of the respondents. You can find the full responses in Attachment D.

| Summary of CP1530 First Consultation Responses | | | | |
|--|-----|----|---------------------------|-------|
| Question | Yes | No | Neutral/ No Comment | Other |
| Do you agree with the CP1530 proposed solution? | 2 | 6 | 0 | 0 |
| Do you agree that the draft redlining delivers the intent of CP1530? | 5 | 3 | 0 | 0 |
| Will CP1530 impact your organisation? | 6 | 1 | 1 | 0 |
| Will your organisation incur any costs in implementing CP1530? | 6 | 1 | 1 | 0 |
| Do you agree with the proposed implementation approach for CP1530? | 4 | 4 | 0 | 0 |
| Do you believe that there are any additional CT/VT ratios which should be included in valid set complied by Elexon under this Change Proposal? | 3 | 5 | 0 | 0 |
| Do you have any further comments on CP1530? | 0 | 0 | 0 | 0 |

The following is a summary of the key concerns highlighted by respondents in their responses and on follow up calls.

Views on National vs distributor base list

Respondents felt basing the valid list of transformer distributor area list would require more administrative effort than a have a National list. This is because a distributor based would mean more updates.

Party Agent respondents stated that they do not currently map their transformer ratios by Distributor ID; therefore, changing to a Distributor based list would require more developments on their systems. They added MOAs working in several areas only have to register a new ratio once with a national list, which is less work and reduces the chance of an erroneous registration.

They noted the metering equipment is the same across the country; therefore, they saw no reason why there would be a geographic constraint on the use of metering equipment.

Elexon notes that since the first consultation, the valid list has now changed to a national list in light of the consultation responses.

Views on the current valid set

The respondents felt that the initial distributor based valid list was based on common ratios and it did not consider the historical ratios that were installed over the last 50 years.

Some of the respondents voiced concerns that settlement processes could be impacted if significant ratios are missing from that list on the go-live date, MOAs will be unable to transmit technical details. They will not be able to fix this problem, as CP1530 currently limits the addition and removal of ratios to DSOs. The respondent noted that the process is further complicated by the fact that under normal business arrangements MOPs do not communicate directly to DSOs. So they would need to ask a supplier, to alert an DSO of the missing ratio. The DSO would then follow that process outline in CP1530 to update the valid set.

Elexon notes as part of the updates to the CP1530 solution, outlined in section two of this report, MOA can now directly update the valid list. The valid list was compiled with help from DSOs and engagement with them will continue until the valid list is ready for implementation.

Process gap

Respondents noted that the proposed process doesn't provide Market Participants with any notification prior to the removal of a ratio from the valid list. Therefore, Parties that would be impacted by the removal of the ratio don't not have sufficient lead time to amend their systems.

Elexon notes that BSCP515 has been amended to include a grace period for the removal of ratios from the list.

Respondents noted that at the time of the first consultation, there was no changes proposed to the BSCP514. They remarked therefore, there is no clarity on what should occur if a MOA receives a value which is not included in the valid set, either from a Distributor or from an outgoing MOA. They questioned whether the MOA should use or reject the information?

Elexon notes, a process has been added to BSCP514 to outline the steps an MOA needs to take if it receives a value that is invalid, i.e. not on the valid set held by Elexon.

Implementation Date

The majority of the respondents stated the proposed Implementation Date of February 2021 would be challenging to meet due to level of data cleansing required to implement this change.

Elexon notes that Implementation Date for the DTC CP has been moved to June 2021. This means the initial valid set of ratios will be in place, along with the processes to maintain them from 25 February 2021, but MOAs and DSOs will not be required to use the valid set

until 24 June 2021. This will provide a four month period to update for Market Participants to carry out a data cleanse.

Redlining to deliver the CP1530 solution

Five out of eight of the respondents to the first CP1530 consultation agreed that the draft redlining delivers the CP1530 solution. Two of the respondents who did not agree that the redlining delivered the proposed solution stated that further redlining was required to BSCP515 and BSCP514 to provide clarity to the proposed solution as outlined above. Elxon made the required amendments to the BSCPs before returning to the SVG for them to agree that the amendments made constituted a material change to the CP1530 solution.

Impacts and costs

Six respondents to the first CP1530 consultation stated they would be impacted by CP1530. They will be updating their processes and systems to ensure that they adhere to the fixed transformer ratios.

The respondents stated they would incur costs to make the required software change but did not indicate the magnitude of these costs, except for one respondent stating they expect the cost to implement CP1530 will be small.

A respondent reported although they did not expect to incur costs as part of implementing the CP1530 solution they would incur costs for any site visits that would have to be carried out in support of the data cleanse activity. They added this would be in addition to the implementation of new validation routines to identify poor quality data from agents and the associated resource management.

An update was provided to the SVG on 1 September 2020 on the outcome of the first CP1530 consultation, conducted over the period 14 July 2020 to 10 August 2020. Elexon noted that CP1530 consultation responses highlighted the need for further amendments to the CP1530 solution. As a consequence, Elexon updated the CP1530 solution. Some aspects of the updates constituted material amendment to the solution. Therefore, Elexon recommended CP1530 be re-issued for a second industry consultation in accordance with BSCP40 CP progression provisions.

The SVG deferred its decision on whether to issue CP1530 for a second consultation and highlighted a number of concerns it believed would first need to be addressed before a second consultation was issued. The following is a summary of the SVG's views and concerns highlighted both at the meeting, and through email following the meeting; along with Elexon's response.

Views on the issue

An SVG Member remarked that the perceived issue being considered under CP1530 was that DSOs are providing inaccurate measurement transformer ratios in data flows detailing Site Technical details. They observed that this is a matter of compliance and highlighted the lack of monitoring to ensure that data flows are being correctly populated and accurate information is being relayed to Market Participants. The SVG Member stated this issue should have been addressed by auditing and compliance monitoring some time ago.

Elexon noted that historically, the BSC Audit has not looked at the content of data flows. It's mapped to BSCP processes which are related to the sending of data flows as opposed to the content of those data flows. The Technical Assurance of Metering (TAM) Audit has previously looked at the quality of MTDs but this does not include the [D0215 'Provision of Site Technical Details flow'](#). The recent implementation of Desktop Audits does include the audit of D0215s.

Elexon noted that it's good practice to ensure fields are only populated with valid format i.e. numbers where numbers are only expected and this is a preventative measure (before the event) as opposed to detective (after the event).

Views on the proposed solution

Would a valid list improve data quality

An SVG Member stated the solution proposed is to create a set of valid ratios that must only be used in data flows transferring site technical details (under MRA governance). However, the proposal notes that even where a valid ratio is used, that does not mean it will be correct for the particular site. Therefore it is not clear how this proposal improves the accuracy of measurement transformer information transferred. The SVG Member concluded, to improve the accuracy of measurement transformer will still require auditing of the data transferred and checking for site accuracy.

Elexon noted that CP1530 is a step towards better data quality, and while it cannot guarantee that the actual ratio is correct, it does prevent Parties from entering any value; as they would be limited to only choose from values on the valid list. This helps to promote better data quality through reporting with the unknown value as all unknown ratios will be

reported under one value. Therefore, the changes under CP1530 are an improvement on the baseline position. Elexon believes it is less likely that an incorrect ratio will be selected than an “invalid” ratio. Where a valid ratio is entered this is usually because the ratio has been installed, or at least ordered, and the value is available. The issue historically has not been incorrect ratio values but invalid ratios that are not mapped to any meaning.

Amendments to the valid list

An SVG Member reported the proposal left them with queries as to who would raise changes to the list and populate it, how often this should be done and what a Distributor should do if a ratio required was not in the list. They added delays in updating the list may result in circumstances where it is impossible to transfer measurement transformer information, risking impacts to Settlement. Elexon noted that under the updated solution DSOs and MOAs can request amendments to the list. With the list now being a national list, Elexon does not foresee many changes being made as there is a high probability that ratios are being used by at least one Party; unless site specific ratios are added or removed.

When a DSO or MOA discovers a ratio is missing, the process outlined in section 2 of this paper, and detailed in the redlining, requires they inform Elexon, who will update the list accordingly. The update will be carried out within the Service Level Agreement (SLA) of the process, with a grace period for any objections to be raised for the removal of ratios.

Governance of valid list

An SVG Member suggested that the valid list should be included in Market Domain Data (MDD), and as such be under MDD change management, as it would be more transparent. Elexon notes putting the list under MDD limits the updates of the list to once every month. Whereas with the current proposed process amendments to the list will take a maximum of 9WDs. What’s more, we anticipate updates to the list will be well within the allowed 9WD window.

Type of valid list

An SVG Member queried whether Elexon’s view has changed on which list they would support. Elexon noted that, due to the responses to the CP1530 consultation and following further engagements with DSOs, it now recommends a national list, rather than a Distributor list. Elexon is working with DSOs to update the national list and the proposed implementation approach supports a transition to using the new sets.

Elexon believes that a national list should alleviate doubts about the accuracy and completeness of the valid list proposed under CP1530. There should be no or very minimal inaccuracies of the ratios as the national list now covers all areas rather than being split into DSO regions. Therefore, if an DSO previously had an incomplete list of ratios it will be more likely to be covered in the national list. The new national list will be published with the CP1530 second consultation so that if any more ratios are missing these can be added before the go-live date of the CP.

Customer-owned CT/VT ratios

SVG Members queried how customer-owned CT/VT ratios would be included in the national list. Elexon believes customer owned equipment is being treated in the same way the industry is currently treating customer owned equipment across the board. This is for the relevant Parties to be collaborating with customers to ensure they know the correct information and in this instance we will be relying on DSOs and MOAs to collaborate with customers to ensure they know what CT/VT ratios are installed at a site.

Data cleanse

SVG Members felt, given the acknowledgement of current inaccuracies it seems, an audit and data cleanse would need to be completed before implementing of this CP.

Elexon noted that a full data cleanse at this stage is not required as the valid list must only be used from the proposed go-live date of the DTC CP. This means that any flow sent from the go live date must use a value from the valid set, this will in time will improve data quality as more flows are sent, as the invalid values held in industry systems will be updated with correct ones from the valid list.

The SVG Chair noted that whilst a full data cleanse by Market Participants would be the ideal approach, the industry is currently unable to support this. This is due to the workload that would be introduced, in addition to that from the [Retail Energy Code \(REC\)](#). For instance, Market Participants would need to visit legacy sites, including those where information has been misplaced, to determine the measurement transformer ratios. Elexon added, however, that this CP is the first step in determining the number of transformer ratios that need to be created.

An SVG Member commented, based on their engagement with Parties it is often the MOP that misreports the CT/VT ratios, having installed the Meter as part of the deprogramming activity. Adding they have been told that some MOAs use dummy values such as 999/9 and some disregard for the D0215. Elexon notes previous analysis has shown that the root cause of poor data has often been the transmission of poor data within the D0215.

An SVG Member stated that a second consultation should specifically ask parties to comment on the value of a clean-up. Elexon noted that most parties have already commented on the difficulties they would face in carrying out a full data cleanse; however, this question can be added to the second consultation.

Unknown values

An SVG member queried how using 'unknown' would be better than the current practice of entering an erroneous values. Elexon noted that the unknown value standardises the known-unknowns (where a Party knows there's a ratio on site but is not sure what it is) and prevents variety erroneous values being used i.e. '???' , 'W/C' or '999'. The benefit of this that it makes reporting easier for both Elexon (through Settlement Risk management) and Parties as all unknown Ratios will be under one value. Once a national list is established the use of the relevant data flows over time will start to clean up any erroneous values held in industry systems for an unknown data item.

9 Further SVG views following deferral of its decision on whether to re-publish CP1530 for a second consultation

Elxon presented a draft CP1530 Assessment Report (SVG236/05) at the SVG meeting on 6 October 2020. This included an updated solution to address the SVG comments from its meeting on 1 September 2020. This paper was presented to capture any comments or questions from SVG Members, before re-issuing CP1530 for a second consultation.

Role of the MOA

An SVG Member asked if the CP also captured the scenario where an outgoing MOA sends an invalid ratio.

Elxon responded that the CP included flows sent by both MOAs and DSOs: if an MOA receives a correct ratio that is missing from the current valid list then they should inform the DSO and Elxon where additions or removals from the valid set are required. This will mean the ratio that has been sent can be investigated by the DSO to confirm whether that ratio is correct. Informing Elxon allows the valid set to be updated once the ratio is confirmed to be valid.

Elxon notes that the current process does not cover the scenario where an MOA, or DSO, receives an invalid ratio from another outgoing MOA. Elxon notes that redlining to BSCP514 and BSCP515 has been updated to reflect this comment and states that MOA or DSO should contact the sender of the flow to confirm whether the ratio is correct.

Managing the valid list

An SVG Member stated they had raised a query at the September SVG meeting on processing updates to, and publication, of the transformer ratios list. Specifically, that changes to the list should be managed under the MDD change process and that the DTC should also refer to MDD. The SVG Member did not see the value in issuing a second Consultation in the CP's current form. Elxon responded that many consultation respondents supported the principle behind the CP. Elxon added that publishing the list on MDD would cause a delay in the release of changes and in Parties' sending of the relevant flows.

Elxon highlighted that although updates to the list would not be frequent there is value in immediate updates. An SVG Member stated that immediate changes would not be required as DNOs should know in advance when they will use new ratios. The DSO Representative agreed with an SVG Member that DNOs would know in advance of any new transformer ratios. They added that endeavours need to be made to register any ratios for customer owned measurement transformers as DNOs do not have control of this; allowing for some flexibility would be valuable.

Second industry consultation

Elxon stated that the options available are for the SVG to agree to proceed to another consultation, provide a set of amendments to be made by 12 October 2020 for the second consultation or reject the CP.

An SVG Member asked how creating a list would improve data quality. Elexon responded that CP1530 has been framed to prevent erroneous ratios being used so it doesn't stop MOA and DSOs using incorrect ratios. To that extent, the SVG should consider whether the CP would improve the current baseline. The SVG Member asked if the DTC had validation requirements for the list. Elexon responded that the DTC CP would refer to the Elexon Portal. Elexon acknowledged that there was no process to validate the file against the data on the Elexon Portal. However, the recipient would validate the flow.

An SVG Member asked how Elexon would ensure Parties adhere to the transformer list following implementation of CP1530. Elexon responded it will use the Performance Assurance Techniques to provide assurance that the valid list that will be established under CP1530 is correctly adopted by the relevant Parties. Another SVG Member therefore asked for the CP's purpose. The SVG Chair responded the CP creates Audit requirements.

An SVG Member stated they were generally supportive of the CP, as were MOAs. They added that although the CP does not solve all the issues associated with current inaccuracies with transformer ratios, it would introduce improvements.

An SVG Member stated that they would support a second consultation considering the support from Industry.

An SVG Member stated that Elexon should consider Industry's feedback and work with Market Participants to create a solution that brings material improvements from the baseline. An SVG Member commented they believe the negative feedback from the first consultation has been addressed in the CP's new form. Elexon responded they have already liaised with Market Participants and made amendments accordingly, and that a full data cleanse would not be required.

An SVG Member stated that the CP should explicitly state that data will be audit checked and that files need to be validated using data on the Elexon Portal.

Elexon can confirm that we will include the validation checks, to provide assurance that the valid list that will be established under CP1530 is correctly adopted by the relevant Parties. This will be done as part of the 2021-2022 Audit process.

The SVG unanimously:

- **AGREED** that CP1530 be re-issued for consultation, subject to feedback from SVG members and external parties being included in the consultation.

10 Industry Views on CP1530 – Second Consultation

The second industry consultation for CP1530 was issued on 12 October 2020 as part of CPC00808, with responses invited by 6 November 2020.

We received 10 responses to the consultation. Six responded in the role of Supplier Agent; with one of them also additionally responding in the role of Supplier. Three distributors and one trade association also responded to the consultation.

The below table summarises the views of the respondents. You can find the full responses in Attachment E. (Note that no numbers are provided for two of the questions as the answers to these questions did not fit within the standard answer headings.)

| Summary of CP1530 Second Consultation Responses | | | | |
|---|-----|----|---------------------------|-------|
| Question | Yes | No | Neutral/ No Comment | Other |
| Do you agree with the CP1530 proposed solution? | 9 | 1 | 0 | 0 |
| Do you agree that the draft redlining delivers the CP1530 proposed solution? | 8 | 2 | 0 | 0 |
| Will CP1530 impact your organisation? | 9 | 0 | 0 | 1 |
| Will your organisation incur any costs in implementing CP1530? | 9 | 0 | 0 | 1 |
| Do you agree with the proposed implementation approach for CP1530? | 8 | 2 | 0 | 0 |
| How much work would be required to carry out a full data cleanse of invalid ratios prior to the requirement to use the valid set in June 2021, when CP1530 will be implemented? | - | - | - | - |
| How much work would be required to carry out a full data cleanse of erroneous ratios prior to the requirement to use the valid set in June 2021, when CP1530 will be implemented? | - | - | - | - |
| Do you believe that there are any additional CT/VT ratios which should be included in the valid list compiled by Elexon under this Change Proposal? | 2 | 6 | 2 | 0 |
| Do you have any further comments on CP1530? | 5 | 5 | - | - |

CP1530 proposed solution

The majority of respondents (8/10) agreed with the proposed solution for CP1530. They noted that the revised CP1530 solution addressed the key concerns raised as part of the first consultation. They also highlighted the benefits of having a standardised data set for transformer ratio: it will reduce confusion and inaccuracies by reducing the opportunity for erroneous values and focuses stakeholders on use of valid values. After stating support for the updated CP1530 solution one respondent added their view CP1530 offered limited benefit in assuring that Parties populating CT/VT ratios will use a valid defined value. They

believe that the solution does not improve the accuracy of CT/VT values overall and consequently only offers a small improvement to the defect detailed in the original Change Proposal regarding data quality and the associated risks to Settlement.

One respondent noted they were pleased that CT values will remain limited to six characters, as opposed to the seven originally proposed at the time CP1530 was first consulted on, as six characters aligns to the existing process.

In response to a respondents comment regarding where there is a new ratio not currently on the valid set and a value of 'unknown' is entered, we acknowledge there may be further effort required to resubmit the ratio once it's been added to the valid set. This may cause slight inconvenience for market participants in some circumstances.

One respondent suggested that systems be configured so invalid data can't be sent or that a rejection flow be created. Elexon notes that the BSC obligation is to send valid ratios. If it transpires that participants are sending invalid data and a rejection flow would be beneficial, further change could be raised under the MRA (or its replacement under the Retail Energy Code (REC)).

Draft redlining

The majority of respondents (8/10) agreed that the draft redlining delivers the proposed solution to CP1530. Respondents noted that the draft redlining is an improvement from that previously proposed under the first industry consultation.

We understand from respondents to the consultation that there may be further opportunities to improve the exception handling parts of the process, for instance DSO or MOA validation of ratios. We acknowledge there may be further areas to improve the solution in the future, but don't believe that these issues currently prevent the operation of an improved process vs the current baseline.

A couple of respondents highlighted some opportunities to add clarity in the CP1530 redlining. We have made some of these suggested amendments to BSCP514 and BSCP515, including being clear that the changes to the valid list become effective when the list is published on the Elexon Portal. Further, we have clarified within BSCP514 section 1.1 and BSCP515 section 4.4.1 that J0454 – CT Ratio can be and/or J0455 – VT Ratio.

We have also amended the drafting in the valid set for the 'unknown' field to lower case, for consistency with the BSCP drafting.

Impacts and costs

Impacts

All respondents except for the trade association noted a direct impact that will arise from the solution to CP1530, and the trade association noted that all metering organisations will be impacted due to required system changes.

Respondents noted that system changes would be required to ensure that only CT/VT ratios from the valid list are used when producing any related data flows within the supplier hub. In some cases, respondents noted that manual processes would also require updating. Impacts were also highlighted regarding a data cleanse activity to ensure that the relevant metering portfolios align to the valid set.

Costs

All respondents except for the trade association noted a cost that will arise from the solution to CP1530. The trade association noted that all metering organisations will incur costs to implement the CP1530 solution.

Respondents noted that the costs would be one-off costs for systems and documentation changes, with some respondents noting a further cost that would arise for a data cleanse activity.

One respondent quantified the costs as 'small'. No other quantification of costs was provided as part of the second industry consultation.

Implementation approach

The majority (8/10) respondents agreed with the proposed Implementation Date of June 2021. The trade association noted that some members have noted that they could implement the CP1530 solution earlier than the proposed Implementation Date of June 2021. Other respondents noted that the later Implementation Date in comparison to the first consultation was welcomed, and another noted that the extra time would be beneficial in ensuring the data cleanse activity could be completed.

One respondent welcomed the June 2021 Implementation Date, but highlighted that it may still be difficult to complete a data cleanse activity in this timeframe. Another highlighted that if the costs for system changes become excessive, they will experience delays implementing the changes prior to June 2021. Another highlighted that an Implementation Date of June 2021 would be too soon due to other IT and Code changes and requested a six month timeframe between approval and implementation. They therefore suggested that November 2021 would be more realistic and manageable, but that a data cleanse would be completed by June 2021.

Elxon notes that subject to SVG approval on 1 December 2020, there will be slightly more than a six month implementation window, and that the final valid set will be published by the end of January 2021 so that market participants can complete a data cleanse activity.

Data cleanse effort

In response to respondents comments on the data cleanse activity, we note that activities conducted at a market participant level in the implementation phase of industry change are not commonly overseen by Elxon. However, to assist market participants in this activity, we will seek to publish some high level guidance on our expectations for the data cleanse activity early in 2021. We have provided an indicative valid set as part of this CP.

We do not believe there to be a need to send new D0150 or D0268 following data cleanse, unless it is clear there is an error that could be causing a material impact on Settlement.

We expect market participants to appropriately conduct the data cleanse exercise in a manner that will protect the integrity of Settlement. The use of an unknown code should only be used where reasonably justified.

Additional CT/VT ratios

Two respondents responded to the consultation to provide comment on further CT/VT ratios to be included in the valid set. We have added the additional ratios suggested by market participants to the draft valid set.

One respondent questioned whether some of the ratios included in the valid set were legitimate. It is our current understanding that all ratios in the valid set may be in use within the market and therefore we do not feel comfortable in removing them at this stage. However, if market participants believe there are ratios in the valid set that are no longer used, there is a defined process for these to be removed, and we welcome further engagement in this regard.

11 Final Committee Views and Decision

Elxon presented the second CP1530 Assessment Report to the SVG at its meeting on 1 December 2020 ([SVG238/05](#)).

An SVG Member questioned the consequences of a market participant changing transformer ratios to 'unknown' if it would have been reasonable for them to investigate the ratio and ensure the correct ratio allocated. Elxon responded that its initial focus for auditing purposes will be the flows being sent across the DTN, however that does not prevent future audits on the data contained within market participants' systems. Elxon highlighted that it should be in all market participants' interest to ensure the correct ratios are held and sent across the DTN.

Another SVG Member supported a view that there should be a focus on the quality of data and that this should be assured through monitoring. The SVG Member acknowledged that CP1530 would bring some benefit to industry, noting it is the start of further work for the future.

Final decision

The SVG unanimously:

- **AGREED** the amendments to the proposed redlining for BSCP514 and BSCP515 for CP1530 made following the second CP Consultation;
- **APPROVED** the proposed changes to BSCP514 and BSCP515 for CP1530; and
- **APPROVED** CP1530 for implementation on 24 June 2021 as part of the June 2021 BSC Release.

Appendix 1: Glossary & References

Acronyms

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

| Acronyms | |
|----------|---|
| Acronym | Definition |
| BSCP | Balancing and Settlement Code Procedure |
| CP | Change Proposal |
| CPC | Change Proposal Circular |
| CT | Current Transformer |
| DMP | Defined Metering Point |
| DSO | Distribution System Operator |
| DTN | Data Transfer Network |
| HH | Half Hourly |
| ISG | Imbalance Settlement Group |
| MRA | Master Registration Agreement |
| MTD | Meter Technical Detail |
| SMRS | Supplier Meter Registration Service |
| SVA | Supplier Volume Allocation |
| SVG | Supplier Volume Allocation Group |
| VT | Voltage Transformer |

DTC data flows and data items

DTC data flows and data items referenced in this document are listed in the table below.

| DTC Data Flows and Data Items | |
|-------------------------------|--|
| Number | Name |
| J0454 | CT Ratio |
| J0455 | VT Ratio |
| D0150 | Non Half-hourly Meter Technical Details |
| D0215 | Provision of Site Technical Details flow'. |
| D0268 | Half Hourly Meter Technical Details |

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.

| External Links | | |
|----------------|-----------------------|---|
| Page(s) | Description | URL |
| 2 | BSCP515 | https://www.elexon.co.uk/csd/bscp515-licensed-distribution/ |
| 2 | Elexon Portal | https://www.elexonportal.co.uk/ |
| 3 | MRA website | https://www.mrasco.com/mra-products/master-registration-agreement/ |
| 3 | J0454 webpage | https://dtc.mrasco.com/DataItem.aspx?ItemCounter=454 |
| 3 | J0455 webpage | https://dtc.mrasco.com/DataItem.aspx?ItemCounter=0455&searchMockItems=False |
| 4 | Data Transfer Network | https://www.electralink.co.uk/services/data-transfer-network/ |
| 4 | Webpage for CP1496 | https://www.elexon.co.uk/change-proposal/cp1496/ |
| 4 | ISG meeting 201 | https://www.elexon.co.uk/meeting/isg-201/ |
| 4 | SVG meeting 204 | https://www.elexon.co.uk/meeting/svg-204/ |
| 5, 26 | SVG meeting 238 | https://www.elexon.co.uk/meeting/svg238/ |
| 2,9 | SVG meeting 233 | https://www.elexon.co.uk/meeting/svg233/ |