

CP1360 – Assessment Consultation

About this document:

This is an Assessment Consultation document, which provides details of the background, solution, potential impacts and costs associated with CP1360 v2.0 'Inclusion of Audit Requirements for Gross Volume Correction and Dummy Meter Exchanges'. This document is for information only, to be used in line with the Consultation Response form, to which this document is attached.

1. Why Change?

Background

Under the Balancing and Settlement Code (BSC), Suppliers are permitted to make adjustments to Settlement data in order to ensure that the correct volume of energy is settled. Two such adjustment techniques are Gross Volume Correction (GVC) and dummy Meter exchanges.

Although Suppliers may make adjustments, energy volumes that have undergone a Final Reconciliation (RF) Run may not be changed¹. GVC compensates for errors relating to periods that have been subject to RF, by adjusting energy volumes in periods not yet subject to RF. This ensures that the total gross volume of energy is correct, albeit allocated to a different Settlement Day. This is based on the rationale that it is better to have the correct volume settled, rather than the volume associated with the correct Settlement Days. As a consequence, the extent to which Settlement reflects the energy flows on a specific day may not be accurate.

A dummy Meter exchange simulates an actual Meter exchange, whereby a final read is deemed to crystallise past data and an initial read is deemed to be used going forwards. A dummy Meter exchange seeks to:

- 1) Minimise previous errors (but not compensate for them) by writing the error off; and
- 2) Correct the situation going forward from a point in time.

This is based on the rationale that it is better to have the correct volume settled going forwards, with the caveat that the historic error volume is minimised rather than corrected. As a consequence the error remains, albeit to a lesser extent, in past Settlement Days.

¹ The exception to this would be authorised changes under a Trading Dispute, with the method of adjustment set out by the Trading Dispute Committee's (TDC's) decision.



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What is the issue?

The Proposer contends that the GVC and dummy Meter exchange audit records, which Non Half Hourly Data Collectors (NHHDCs) are required to keep, are not defined in sufficient detail to enable consistent reporting or to allow the volume and applicable period of the adjustment to be readily identified. Inconsistencies in record-keeping make it difficult to investigate and analyse the use of these techniques. For example, it is not currently possible to derive an aggregate view of the levels of adjustments being applied across the market.

2. Solution

ENW Ltd raised CP1360 'Inclusion of Audit Records for Gross Volume Correction and Dummy Meter Exchanges' on 25 November 2011. It proposed to amend BSCP504 'Non Half Hourly Data Collection for SVA Metering Systems in SMRS' to make the audit obligations more specific for Suppliers and their agents in relation to the use of GVC and dummy Meter exchange.

ELEXON have since set up a Working Group to discuss CP1360 to make sure the final solution is fit for purpose following industry feedback. Therefore, CP1360 v2.0 was raised on 22 March 2013.

BSCP504 Section 4.14.3 'Use of Gross Volume Correction' states that, where there are on-going validation problems, action taken by the NHHDC should be subject to a robust and auditable process. It does not however provide any explicit description of the audit requirements or what should be captured by this process. Therefore, CP1360 v2.0 seeks to more clearly define the audit requirements for both GVC and dummy Meter exchange with the addition of Section 4.14.6 'Gross Volume Correction and Dummy Meter Exchange Audit Requirements' and by amending Section 4.14.2 'Definitions'.

The redlined text in Attachment A details the information that NHHDCs would be required to keep and provides further clarification through additional definitions. These changes will enable the BSC Auditor to confirm that these techniques, when used, have been undertaken in accordance with BSC rules. This will also enhance any future investigations and analysis of the use of these techniques.

Intended Benefits

CP1360 v2.0 seeks to enable the Performance Assurance Framework (PAF) to operate more effectively, thus increasing the accuracy and reducing the volatility of Settlement for all Suppliers and other impacted BSC Parties.

The CP contends that without such audit records verification of the appropriate use of these techniques (as part of the BSC Audit or as part of other initiatives), and any investigations / market analysis associated with the use of these techniques, would be far more onerous. CP1360 v2.0 seeks to make audit obligations more specific, to allow for more consistent industry reporting and more transparency in the use of GVC and dummy Meter exchange.



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Question 1

Do you agree with the proposed change?

Please provide your response and rationale in the response form provided.

3. Impacts and Costs

Potential Central Impacts and Costs

The following tables summarise the estimated ELEXON effort required to implement CP1360 v2.0.

ELEXON Costs		
Document Changes	System Changes	Total
BSCP504	None required	£840 (3.5 Mandays)

Potential Party Impacts and Costs

The following table summarises the Party impacts associated with CP1360 v2.0, including those identified in responses received to the original Participant Impact Assessment.

Party Impacts	
Party Type	Impacts & Costs
Data Collectors / Aggregators	Responses included 'unable to quantify', 'no costs' and 'low costs'.
Distributors	No costs.
Suppliers	Unable to quantify at this time.

Question 2

Is your organisation impacted? If yes, please answer the following:

a. How is your organisation impacted?

b. What are the associated costs on your organisation to implement this change?

Please provide your response and rationale in the response form provided.

4. Previous Industry Views

Previous CPC responses

CP1360 v1.0 was originally issued for Participant Impact Assessment via CPC00706 on 25 November 2011.² We received 12 responses of which six agreed with the CP, five disagreed and one remained neutral. Eight respondents indicated they would be impacted by this change, of which five did not agree with the proposal.

In general LDSOs indicated positive impacts, stating that the CP would allow for complete analysis of Supplier data cleansing techniques and would ensure that accurate information is used for Settlement purposes. The majority of Party Agent and Supplier respondents noted minor procedural changes as potential impacts. A number of respondents noted that the proposed change would require additional resources and increase operating and development costs, although at this stage they were unable to quantify these costs. Suppliers who disagreed with the proposed change believed that processes were already in place to audit GVC and dummy Meter exchange events. One commented that the Risk Evaluation Methodology is in place under the PAF to ensure that areas of significant risk are included within the audit. Contrary to this view, another Supplier stated that the CP should look to address the potential audit gap around all Supplier adjustments and not just GVC and dummy Meter exchange.

P274 and SVG

Modification Proposal P274 'Cessation of Compensatory Adjustments' was initially raised to put an end to compensation under the BSC, but was later developed to restrict the use of GVC and introduce robust audit requirements into the process. During its Assessment, ELEXON and the P274 Workgroup struggled to get the information required to do the appropriate level of analysis needed on the Modification. Members of the Workgroup and the BSC Panel shared the view that there needs to be more transparency and auditability on the use of GVC (both later expressed the same view on dummy Meter exchange).

The SVG echoed these concerns about both GVC and dummy Meter exchange under the current arrangements, advising that there is a significant lack of transparency around both of these compensatory techniques. They believed that this has led to lack of information and the inability to conduct proper data analysis on either GVC or dummy Meter exchange, resulting in issues with other proposed changes to these processes.

An SVG Member commented that the addition of the audit requirements set out in CP1360 would add a degree of control and visibility around both GVC and dummy Meter exchange, which would lay the way for appropriate changes to be made in the future following a review of both techniques.

² Full collated responses to the Participant Impact Assessment can be found on the CP1360 page of the ELEXON website, [here](#).



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The Member also voiced their concerns around the industry's ability to accurately identify certain instances of GVC, for example where GVC is applied to an error by which the customer has overpaid (resulting in a positive Annualised Advance, or AA). They advised that these instances are harder for some Suppliers to recognise when compared to those where GVC is applied to an error by which the customer has underpaid (resulting in a negative AA). ELEXON advised the Member that CP1360 would require the NHHDC to record the detailed audit requirements, which would be done at the point at which GVC is applied to an error. CP1360 would not require Suppliers to identify these instances, but requires the NHHDC to be able to provide information on GVC (and dummy Meter exchange) usage to the Supplier upon request.

The same Member advised that the audit requirements need to be consistent throughout the industry on how they report instances of GVC and dummy Meter exchange. They commented that ELEXON needs to work with the industry to agree a single format. ELEXON advised the Member that BCSP504 Section 4.14.6 of the redlined text states that the NHHDC shall make the required information available on request (to the Supplier, BSCCo or BSC Auditor) in a comma separated value (.CSV) file or other agreed format. ELEXON advised that the nature of the required information would format itself and that there was little room for variation. If approved, the audit requirements in CP1360 would help future changes to be made to GVC and dummy Meter exchange. Once information is gathered and reviewed on the usage of these techniques, changes can be made to the audit requirements or the processes if necessary.

Some SVG Members believed that there were already sufficient requirements on Suppliers to keep an audit trail for any GVC events undertaken, and that there was no evidence that this was not being done. However, it was noted that the proposed requirements in CP1360 were more specific and had potential interaction with errors that may be uncovered during the smart Meter roll out.

An SVG Member noted that Ofgem's opinion was very clear in its decision to reject P274. However, the Member believed that there are plenty of questions that still need answering. He identified that this included clear definitions of the 'error volume', 'correct volume' and 'compensatory volume' and consideration of whether these readings should also be included. He noted that the compensatory volume would vary depending on when GVC was applied. ELEXON responded stating that the data items in CP1360 should be more accurately labelled 'Volume in Error Period' and 'Volume in Compensatory Period' (as the volumes would include the energy correctly settled during those periods). In order to calculate the compensatory volume and error volume, ELEXON would perform a 'straight-line' interpolation between the start of the error period and the error correcting reading to estimate the correct consumption as at the date of the error freezing reading. This will be less onerous than asking Suppliers and NHHDCs to deem a reading or perform the calculation themselves.

CP1360 has recently been taken off hold following Ofgem's rejection of P274. ELEXON have since set up a Working Group to discuss CP1360 v2.0 to make sure the final solution is fit for purpose and would allow the information gathered by the audit requirements to aid the assessment of future changes.



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Question 4

If approved, do you think CP1360 v2.0 would help with the progression of future changes to the GVC and dummy meter exchange processes? (For example, providing the necessary information for future analysis of these techniques.)

Please provide your response and rationale in the response form provided.

6. Development of Solution v2.0

CP1360 v2.0 was presented to a Workgroup on 7 March 2013. The Workgroup discussed at length the options for calculating the volume in the error period for GVC as well as the CP1360 v2.0 solution requirements and scope of the GVC and dummy Meter exchange audit requirements.

Workgroup Views on GVC

Calculating the error volume:

ELEXON advised the Workgroup that there had been concerns raised around the calculations that would be used to obtain the volume in the error period. Therefore, ELEXON presented the Workgroup with three options for calculating this volume:

- NHHDC could deem a read at RF;
- NHHDC (or Supplier) could perform a 'straight-line' interpolation calculation;
- ELEXON (or other users of the audit records) could perform a 'straight-line' interpolation calculation.
 - Alternative - ELEXON (or other users of the audit records) could perform a 'straight-line' extrapolation calculation using the last good EAC.

NHHDC deeming a read at RF:

The first of the three options presented to the CP1360 Workgroup for calculating the volume in the error period involved the NHHDC deeming an additional read at RF.

A Workgroup Member advised that this would be the best approach as it would produce the most accurate results. ELEXON advised the Workgroup that whilst this approach would obtain accurate results, it is onerous on the NHHDC. Secondly, deeming an additional read at RF is not a step in the current GVC processes.

The Workgroup (taking into account the accuracy of the calculation) decided that requiring the NHHDC to deem an additional read at RF was not the best approach for calculating the volume in the error period for the fore mentioned reasons.



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Straight-line' interpolation/extrapolation:

ELEXON advised the Workgroup that there were two options for calculating the volume in the error period using a 'straight-line' interpolation calculation.

- NHHDC (or Supplier) could perform the calculation, though this would be onerous on the NHHDC; or
- ELEXON (or other users of the audit records) could perform the calculation.
 - Alternative - ELEXON (or other users of the audit records) could perform a 'straight-line' extrapolation calculation using the last good EAC.

ELEXON advised the Workgroup that an SVG Member had concerns over the 'straight-line' interpolation calculations, included in the BSCP504 redlining, that would be used to get the volume in the error period. The SVG Member believed that the volume obtained would vary depending on the duration of the compensatory period.

ELEXON advised the Workgroup that this would not be a problem if the rate of consumption is constant across the Meter advance periods. Meaning that regardless of the duration of the compensatory period the calculated volume in the error period would always be the same. If, however, consumption was not consistent across the Meter advance periods, and it is inevitable that there will be inconsistencies to some degree, the calculated volume in the error period would be different depending on the duration of the compensatory period. ELEXON advised the Workgroup that the difference between the calculations would generally be small and that the use of a 'straight-line' interpolation calculation would provide a reasonable indication of the volumes being compensated for by the industry though the use of GVC.

A Workgroup Member noted that there was no truly accurate way to calculate the volume in the error period, but the 'straight-line' interpolation calculation is easy to use and provides a good estimate. The Member also stated that the important thing is that CP1360 provides further transparency around how the industry uses GVC and that we are able to easily obtain good quality information.

ELEXON advised the Workgroup that an alternative option for calculating the volume in the error period would be to use 'straight-line' extrapolation calculation along with the last good EAC³. Though, this would rely on the NHHDC being able to provide the last good EAC. This option for calculating the volume in the error period would still be inaccurate to the extent that the last good EAC varies from the notional AA between the last good reading and the error correcting reading.

A Workgroup Member voiced concerns that the last good EAC may not be the best representation and that there was no way to guarantee a good quality of information. There were also concerns raised by other Members around how far back you would need to go to get the last good EAC and that there might not be a

³ Error Volume = Volume in Error Period – Correct Volume in Error Period where Correct Volume in Error Period = last good EAC * (days in error period / 365)



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reliable EAC. ELEXON responded that in order for GVC to work, you need a reliable EAC in the Crystallised Period, and that a dummy Meter exchange may be preferable to GVC where there is inadequate reliable history. An alternative option would be to use an EAC where provided in the audit record; and where it isn't provided, then to carry out a straight-line interpolation.

A Member questioned what the definition of a 'good' EAC would be. The Member believed that there would be inconsistencies among the industry as to what they would consider to be a good EAC, to which other Workgroup Members agreed.

The Workgroup believed that the 'straight-line' interpolation calculation was a simple and good approach. They also agreed that the 'straight-line' extrapolation calculation using the last good EAC would only complicate things without adding any additional accuracy or benefit. Therefore, the Workgroup agreed that the best approach for calculating the volume in the error period would be for ELEXON (or other users of the audit records) to use a 'straight-line' interpolation calculation.

Reporting Forward EAC's in GVC:

A Workgroup Member noted that ELEXON included 'Forward looking EAC following application of GVC' in the audit requirements. The Member questioned whether or not it would be worth knowing if the EAC was replaced.

ELEXON responded stating that CP1361 was raised to place an obligation on NHHDC's to replace positive extreme EACs following the application of GVC. ELEXON noted that the SVG rejected CP1361 at its meeting on 5 March 2013 on the basis that there was not enough information to quantify the materiality of the issue. The SVG agreed that if approved and implemented, the solution proposed by CP1360 would help to identify the materiality of the issue in CP1361. They also believed that the solution proposed by CP1360 would help with the progression of future changes to the GVC processes. Therefore, ELEXON believe that incorporating the replacement EAC in the audit requirements for GVC would add benefit.

The Workgroup agreed with ELEXON that the audit requirements should include 'Forward looking EAC following application of GVC' and this should be the replacement value, if the latest EAC resulting from the GVC calculation has been replaced by a realistic value, in accordance with 4.14.4.7. Otherwise it should be the latest calculated EAC following the application of GVC. A new data item will be added to the audit record to indicate whether or not the EAC is a replacement value.

Scope of audit requirements for GVC:

ELEXON advised the Workgroup that in the past there has been confusion around what should be considered GVC and therefore what should be captured under the audit requirements for CP1360. For example, there have been questions raised as to whether or not instances of natural GVC and 14 month deeming should be considered as true instances of GVC and therefore captured under CP1360.



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A Member of the Workgroup stated that the audit requirements for GVC should only pick up instances of GVC that have been done deliberately, so where manual intervention is required in order to advance without affecting the crystallised period.

The Workgroup agreed that 14 month deeming and natural GVC should be excluded from the audit requirements as they are not considered to be true instances of GVC. Therefore, the CP1360 BSCP504 redlining states that "GVC audit records will include all instances where action has been taken to address a perceived error. It will exclude the compensatory effects that are a natural consequence of the Non Half Hourly Settlement processes. It will also exclude any compensatory volumes arising from deeming a read when the Meter has been read at RF for the date of the previous Meter register reading has taken place."

Workgroup Views on dummy Meter exchanges

Meter Multiplier and CT Ratios:

A Workgroup Member questioned whether or not the audit requirements for dummy Meter exchange should include the Meter multiplier and current transformer (CT) ratio.

Another Member responded advising that they believe the audit requirements should include this information, though they questioned whether or not you should require the NHHDC to provide the Meter multiplier and CT ratio for both before and after each instance of dummy Meter exchange undertaken or just after. Some Workgroup Members believed that it might be helpful to have the information for both before and after as the values may be different.

One Member argued that you would not need this information at all and that the group had to take a pragmatic approach to CP1360 because the solution is not going to capture every variable instance of dummy Meter exchange performed.

The aforementioned Member stated that one of the aims of implementing the audit requirements under CP1360 was to find out the volumes of energy compensated for by GVC and the volumes written off by dummy Meter exchange. The Member argued that one would not be able to determine the true volume written off by an instance of dummy Meter exchange without knowing the Meter multiplier and in some cases the CT ratio.

The Workgroup questioned how easy it would be to obtain this information as some Members were concerned that once a dummy Meter exchange has been performed it might be onerous on the NHHDC to obtain the previously used values. Some of the Members believed that if CP1360 specified that the NHHDC should include the Meter multiplier and CT ratio for both before and after each instance of dummy Meter exchange, it would be worth asking the industry how easy it would be to get these values.

The Workgroup agreed that it would be useful to require the NHHDC to provide this information. The Proposer felt that it would be sufficient to only have the NHHDC provide the Meter multiplier and CT ratio



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after each instance of dummy Meter exchange undertaken rather than requiring the details for both before and after.

Scope of audit requirements for dummy Meter exchanges:

A Workgroup Member voiced their concerns about the solution for CP1360 capturing dummy Meter exchanges being performed as a result of working around system constraints.

For example, if systems have been designed to require a reading to coincide with changes to Meter Technical Details (MTD), it may be difficult to correct the details without using a reading to close off the old MTD and another reading to open the new MTD. The Member noted that if these instances are captured it could have a negative effect on the overall data obtained as a result of CP1360 being implemented.

The Member stated that the audit requirements for dummy Meter exchange should only be capturing instances where there has been a material impact on energy volumes. Other Workgroup Members agreed with this stating that the audit requirements should exclude any instance with a difference of one unit between the final and initial Meter readings on any Time Pattern Regime (TPR). This would help to exclude instances of dummy Meter exchanges performed as a result of working around system constraints.

A Workgroup Member questioned whether or not dummy Meter exchanges used to correct transposed register issues should be captured under the audit requirements. They have a material impact on Settlement to the extent that units are allocated to the wrong times of day, even though the net volume across registers will be correct. ELEXON and the Workgroup agreed that transposed register issues should be captured under CP1360. Therefore, the proposed changes to BSCP504 Section 4.14.6 reflect this.

'Rationale for change' under GVC and dummy Meter exchange:

ELEXON advised the Workgroup that the audit requirements for P274 included 'rationale for change' and that a Member had questioned (prior to the Workgroup meeting) why this was not included under CP1360. ELEXON asked the Workgroup if they believed adding 'rationale for change' under both GVC and dummy Meter exchange would add value to the audit requirements.

One Workgroup Member was concerned about the types of responses that would be received, in that they would always be the same. Another Member responded stating that in the instance of an extenuating circumstance (like having to re-start the reading history, but still having to compensate for an error) it would be useful to have the option to provide rationale for the change that was made. This would allow users of the audit records to exclude such records from the volume calculation, whilst retaining them in the instance count.

The Workgroup agreed that that it would not be in the industry's best interest to make 'rationale for change' mandatory but it would be useful to have the option to provide rationale if the situation warranted it. Therefore, the proposed changes to BSCP504 reflect this.



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7. Implementation Approach

The Proposer's original requested Implementation Date for CP1360 was 28 June 2012 as part of the June 2012 Release. It was believed that the implementation of CP1360 would be significantly impacted by the outcome of P274, which at the time, aimed to prohibit to the use of GVC as a corrective technique. CP1360 was therefore put on hold pending the outcome of P274. P274 has since been rejected by Ofgem.

The majority of respondents to the original Participant Impact Assessment indicated that they would need between three and six months' lead time in order to implement this change. ELEXON therefore proposes a revised Implementation Date (based on the previous responses) of **7 November 2013 as part of the November 2013 BSC Release**.

Question 3

Do you agree with the implementation approach? If not, why?

Please provide your response and rationale in the response form provided.

Question 5

Do you have any other comments?

Please provide your response and rationale in the response form provided.

Attachments:

Attachment A – BSCP504 Redlining

Attachment B – CP1360 v2.0 Form

For more information, please

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