CP REPORT – CP1408

MEETING NAME	Supplier Volume Allocation Group

Date of meeting	29 April 2014
Paper number	159/02
Owner/author	Claire Anthony
Purpose of paper	Decision
Classification	Public
Summary	This report provides details of the background, solution, impacts and industry views of Change Proposal (CP) 1408 'Excessively Large EAC/AA Control Points'. ELEXON invites the SVG to consider the report and to approve CP1408 for implementation in the November 2014 Release.

1. Why change?

Background

At its October 2013 meeting, the SVG (SVG152/02) highlighted the risk of extremely large Estimated Annual Consumption/Annualised Advance (EAC/AA) values entering Settlement that are far beyond plausible levels of genuine consumption for a single Non Half Hourly (NHH) Meter.

Two recent instances of erroneously large EAC/AA values (of greater than 1TWh) highlighted that Suppliers and their agents can, on rare occasions, fail to correct these extremely large values before they reach NHH Data Aggregators (NHHDAs). Centrally-supported Supplier Agent software and industry data flows were not designed to preclude a Supplier from entering such values. ELEXON therefore raised concerns that an excessive value could be used in central Settlement calculations.

What is the issue?

In its October 2013 paper, ELEXON identified three additional controls[1] that it believed warranted further investigation. ELEXON subsequently provided the SVG, at its February 2014 meeting (SVG156/03), with the results of the central service provider costs associated with two of three options.[2] Taking into account these costs and the Software Technical Advisory Group (STAG)'s comments on the viability of the options, the SVG agreed to progress the NHHDA system change option (Option 1) in isolation since it would prevent all extremely large erroneous values entering Settlement.

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[1] The three additional controls were as follows:
- Option 1: Change the NHHDA system to reject any EAC/AA that exceeds a certain consumption threshold and to generate a D0023 'Failed Instruction' flow. ELEXON originally proposed adding a new Instruction Failure Reason Code; however the SVG agreed that an existing code should be used to minimise the participant impact and avoid the need to change the Master Registration Agreement (MRA) Data Transfer Catalogue (DTC);
- Option 2: Change the EAC/AA calculator to reject any calculated EAC/AA that exceeds a certain consumption threshold; and
- Option 3: Change the J-Items for AAs and EACs, to limit the number of digits it is possible to enter in either field on any industry flows that include them.

[2] Options 1 and 2 had comparatively modest central costs which could be implemented by ELEXON and its service providers. Option 3, however, was viewed as a major change with the potential for high associated costs for BSC Parties and Party Agents (a number of high-volume flows would need to be amended and an MRA Solution Pre- Assessment Form would also need to be raised to impact-assess this option).

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ELEXON raised CP1408 'Excessively Large EAC/AA Control Points' on 14 February 2014 to progress this option.

2. Solution

CP1408 will change the NHHDA system to reject any EAC/AA that exceeds a certain consumption threshold from entering Settlement. This will be based on the existing J1361 'Instruction Failure Resolution Code' data item which is part of the D0023 'Failed Instructions' flow. ELEXON believes that Instruction Failure Reason Code 'NIV' ('EAC/AA value outside range permitted by NHHDA software') would be appropriate. This is because it is both an accurate description of the reason for rejection and a reason code that is not used in high volumes, meaning that consequent changes to NHH Data Collector (NHHDC) scripting should be minimised.

The system change will need to be reflected in the NHHDA User Requirements Specification (URS) and supporting changes made to BSC Procedure (BSCP) 505 'Non-Half Hourly Data Aggregation for SVA Metering Systems Registered in SMRS' for NHHDAs[3].

While these EAC/AA values are unusual, they inherently have high materiality, impacting all BSC Parties through GSP Group Correction and Credit Cover provisions. The SVG agreed at its February 2014 meeting that the NHHDA system is the best place for any control point to be created. This is on the basis that it is relatively cost effective, closes off the risk of excessively large values in Settlement and minimises consequent changes required to agent and Supplier systems (when compared to the other two options discussed with the SVG).

3. Impacts and costs

Central impacts and costs

Potential impacts	
Document impacts	**System impacts**
• BSCP505 • NHHDA URS	• NHHDA software

The estimated ELEXON effort and demand led system change costs to implement CP1408 are set out in the table below:

ELEXON costs		
ELEXON effort	**Demand led system changes**	**Total**
5 man days equating to £1,200	Approximately £3,500 if completed as a standalone release (the cost may be less if implemented alongside other similar changes)	**Approximately £4,700**

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[3] Other technical specification documents beneath the URS which are not declared on the BSC Baseline Statement will also be amended to reflect the updated system requirements.

Participant impacts and costs

Six of the eight respondents to the CP Impact Assessment indicated an impact. Five of these respondents commented that they are Qualified NHHDAs and so they will need to make changes to update their NHHDA systems.

Two of the eight respondents indicated that there may be associated costs with CP1408, although they advised that these are minimal (2-5 man days). Two respondents also advised that the associated costs were currently unknown. They noted that, although the software is maintained centrally by ELEXON, they would need to test the package received to ensure that its implementation would not have any unintended consequences on other processes or applications.

4.   Implementation approach

CP1408 is targeted for implementation on 6 November 2014 as part of the November 2014 BSC Systems Release, as this is the next available release.

One respondent to the CP Impact Assessment disagreed with the proposed Implementation Date. The respondent commented that they thought it would be difficult to implement the change by November 2014. This is because they believed that the change would require both BSC and MRA DTC changes since they believed that the intention was to introduce a new entity in Market Domain Data (MDD). They noted that these changes would require system updates which may require a minimum six-month lead time. Based on the six-month implementation timescale, the respondent highlighted that both CP1408 and the associated DTC change would have to be approved by 1 May 2014 at the very latest and as such suggested that a February 2015 date is more suitable.

ELEXON confirmed that the intention is not to create a new MDD entity for the consumption threshold value. This approach has been chosen because introducing a new MDD entity in BSCP509 'Changes to Market Domain Data' would require both BSC and MRA DTC changes, and would, if approved, create an administrative burden to implement and maintain. Since the threshold will only affect a minute number of total D0019 'Metering System EAC/AA data' flows received by the NHHDA system, and we envisage that the threshold will need to be changed very infrequently, if at all, the administrative overhead of an MDD entity seems disproportionate. ELEXON therefore intends to store the value as a configurable parameter in the NHHDA system and capture it in the technical documentation beneath the URS. The value could be changed, if needed, by agreement with the SVG and implemented by ELEXON's service providers. No DTC change is therefore required and only organisations' NHHDA systems will need updating.

ELEXON clarified this point with the respondent. They acknowledged that the implementation approach will therefore not involve a new MDD entity or DTC changes, and agreed that a November 2014 Release would be achievable. However, the respondent commented that the work required to test and deliver the proposed changes by both their own service providers and their own technical support team would still need to be taken into account. ELEXON advised that, as the changes would not require a six-month lead time as originally commented by the participant in their response, there should be sufficient time for testing and delivering the change in time for a November 2014 Release.

5.   Industry views

ELEXON issued CP1408 for CP Impact Assessment via CPC00739. We received eight responses of which seven agreed with the CP and one was neutral.

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The following table shows the breakdown of responses. You can find the full collated participant responses to CP1408 in Attachment C and on the CP1408 page of the BSC Website.

Summary of responses for CP1408			
Organisation	**Capacity in which organisation operates**	**Agree?**	**Impacted?**
BES Commercial Electricity	Supplier	Yes	No
British Gas	Supplier	Yes	Yes
EDF Energy	Supplier, Supplier Agents	Yes	No
G4S Utility and Outsourcing Services (UK) Limited	Supplier Agents	Yes	Yes
IMServ Europe Ltd	Supplier Agents	Yes	Yes
RWE Npower	Supplier, Supplier Agents	Neutral	Yes
ScottishPower	Supplier, Licensed Distribution System Operator (LDSO), generator, Supplier Agents	Yes	Yes
SSE Energy Supply Ltd	Supplier, Supplier Agents	Yes	Yes

All respondents agreed that CP1408 will introduce the simplest and best placed validation check to prevent, as early as possible, excessively large EAC/AA values from entering into Settlement.

A couple of respondents commented that it would be useful to have a sense of what the proposed consumption threshold value may be. ELEXON clarified that, as agreed with the SVG in February 2014, the threshold would be nine integer digits. This would have trapped the past erroneous values while allowing for any genuine large consumption values (e.g. those created through Gross Volume Correction). Anything equal to or greater than 100GWh will therefore be rejected by the NHHDA system under this change. See SVG156/03 for the full reasoning behind this threshold value.

One respondent also asked for clarification if a large EAC/AA is picked up by a NHHDA control point, whether this still appears on an ELEXON report. ELEXON confirmed that any EAC/AA picked up through this control point would not appear on ELEXON's large EAC/AA reporting. ELEXON advised that large EAC/AA reporting is based on what NHHDAs are holding for Settlement aggregation, and this control point prevents excessively large EAC/AAs reaching the location in NHHDA systems from which Settlement is aggregated. The rejected value will instead appear on a D0023 from the NHHDA to the NHHDC.

Another respondent highlighted that within the UDC document it refers to a lock on values that have more digits than a configurable value, while the BSCP505 redline mentions values which exceed a configurable value. The respondent asked for clarification to make sure that had an understanding of what would pass and fail. ELEXON advised that its service provider's proposal for implementing the change uses a numeric value, rather than a 'digits' value, so, 'values which exceed a configurable value', and the configurable values will be '100,000,000.000000' and '-100,000,000.000000'.

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Responses to additional consultation questions

At the SVG's request, ELEXON included two additional consultation questions as part of the CP Impact Assessment to identify whether industry was of the opinion that:

- There would be a benefit if similar controls were imposed on the Half Hourly (HH) market; and

- Similar changes to HH Data Aggregator (HHDA) systems would be feasible.

Two of the eight respondents agreed that there could potentially be a benefit to impose similar controls on the HH market. One commented that it may be sensible to limit the value of Actuals and Estimates in the HH market, although the limit may need to be set at a different value depending on the analysis of available data. The other commented that, as a HH Data Collector (HHDC), if another HHDC sent erroneously high values to their HHDA then this would cause an issue.

The other six respondents presented a neutral view on whether there would be a benefit if similar controls were imposed on the HH market. These respondents commented that, if there is evidence of a similar issue within the HH market, then it would seem prudent to extend the controls to the HH market. However, the justification for the change and the overall benefits would need to be understood, as the costs would be more significant in the HH market as the HHDC and HHDA systems are individual to agents.

Only three of the eight respondents provided comments on how feasible they believed similar changes to HHDA systems would be. They noted that changes to HHDA systems would be more difficult to implement as the software is not provided centrally (it is managed by their own service providers), and therefore individual HHDAs would need to implement in a manner suitable to their bespoke software. Respondents agreed that further work would need to be undertaken to fully understand the risks within the HH market.[4]

During the SVG's February discussion, ELEXON noted that there had been no instances of extremely erroneous HH EAC/AAs.

Comments on the proposed redlining

We received one comment on the redlined text as shown in the table below:

Redline comments			
Organisation	**Document name and location**	**Comment**	**ELEXON's recommendation**
SSE Energy Supply Ltd	BSCP505	We would have thought some reference needs to be made to the D0023 process regarding rejection of an erroneous EAC/AA	ELEXON advised that the following documentation will capture the use of a D0023 flow as the mechanism for indicating that the consumption threshold was breached, and the EAC/AA not entered into NHHDA systems, along with the relevant reason rejection code (NIV):

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[4] BSCP502 'Half Hourly Data Collection for Metering Systems Registered in SMRS' section 4.1.6 already includes a 'Maximum Permissible Energy by Metering System Code of Practice' validation check.

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Redline comments			
Organisation	**Document name and location**	**Comment**	**ELEXON's recommendation**
			1. Functional specification 2. Technical specification 3. System management guide 4. Operations guide 5. Conceptual Model 6. Logical Data Design These documents provide detailed, technical explanations of how the software carries out the high-level principles of operation described in BSCP505 and the NHHDA URS Putting information regarding the specific use of the D0023/reason rejection code in these lower-level documents is consistent with the approach we have adopted for other failed instructions resulting in a D0023, and eliminates the need to raise further CPs if any iterative changes to the validation procedure are required at a later date

6. Recommendations

Assessment review

CP1408 proposes to amend the NHHDA system to reject any EAC/AA that exceeds a certain consumption threshold entering Settlement. Amendments are therefore required to BSCP505 and the NHHDA URS to reflect this change.

No respondents disagreed with the CP or (following ELEXON's clarification of the solution) with its proposed Implementation Date.

All respondents confirmed that they are happy with ELEXON's clarification on their additional comments and questions.

Recommendation

We invite you to:

a) **APPROVE** CP1408 for implementation on 6 November 2014, as part of the November 2014 BSC Systems Release; and

b) **AGREE** the proposed amendments to BSCP505 and the NHHDA URS for CP1408.

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Appendices

None

Attachments

Attachment A – BSCP505 Redlining v0.1

Attachment B – NHHDA URS Redlining v0.1

Attachment C – CP1408 Consultation Responses

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