

Change Proposal – BSCP40/02

CP No: 1364

Version No: v1.0

Title:

Remove BSC Systems constraint on maximum negative CALF values

Description of Problem/Issue:

Background – what is a negative CALF value?

For each BSC Season, Parties submit estimates of each of their BM Units' maximum positive generation and maximum negative demand. The Central Registration Agent (CRA) divides these by Settlement Period Duration (0.5 hours) to derive Generation Capacity (GC) and Demand Capacity (DC) values for the relevant BM Unit and BSC Season. Part of the BSC's credit assessment for a Supplier BM Unit multiplies its negative DC value by a Credit Assessment Load Factor (CALF) value to estimate the Supplier's likely energy indebtedness. This determines the amount of Credit Cover the Supplier must lodge to cover its indebtedness in the event that it cannot pay its Trading Charges.

Normally, the CALF value of a Supplier BM Unit is positive so that, when applied to the BM Unit's negative DC value, it derives the BM Unit's estimated average (negative) demand. This reflects that most Supplier BM Units have GC values of zero. However, a Supplier BM Unit which contains SVA embedded (distribution-connected) generation will have a GC which is positive and greater than zero. In this situation, the Supplier can apply for a special CALF value. This special CALF value is based on a combination of the BM Unit's GC and DC values, and therefore takes the BM Unit's embedded generation into account so that its credit assessment is more accurate. If the Supplier BM Unit's GC is bigger than its DC, this will usually result in a negative CALF value. The Supplier BM Unit's negative DC is then multiplied by this negative CALF to derive its estimated average (and positive) net generation.

BSC Section M1.5 requires ELEXON to determine CALF values in accordance with the principles/guidance set by the Panel (and thereby in accordance with the ISG's [CALF Guidance Document](#), as the Panel has delegated this responsibility to the ISG). Sections 5.5-5.6 of the CALF Guidance Document contain the rules for calculating CALF values for Supplier BM Units which have requested special values to reflect their SVA embedded generation.

What is the issue?

BSC Systems currently limit the CALF data item to decimal(8,7) – i.e. one digit before the decimal point – and hence to the range ± 9.9999999 . In practice ELEXON does not set CALF values which have more than four digits after the decimal point, as this would result in spurious accuracy.

The systems constraint of one digit before the decimal point does not cause an issue with positive CALF values, because these cannot be greater than 1.0000 (otherwise the BM Unit's estimated average demand would exceed its estimated maximum demand).

However, a Supplier BM Unit with SVA embedded generation could have an estimated average generation which far exceeds its estimated maximum demand. In such cases, a large negative CALF value of -10.0000 or greater could be needed to give an accurate assessment of the Supplier's required Credit Cover. The BSC Systems limit does not allow this.

Based on current GC/DC values, we estimate that removing the existing systems constraint on negative CALF values would significantly reduce Good Energy's required Credit Cover.

Proposed Solution:

We propose that the CALF data item definition within CRA systems is amended to accommodate four digits before the decimal point – i.e. decimal(11,7), supporting values up to ±9999.999999.¹

This would enable:

- ELEXON to allocate negative CALF values of up to -9999.999999; and
- The CRA to use these in the Credit Cover calculation.

CALF values are reported in the following data flows:

- The CRA-I020, which the CRA issues to ELEXON and National Grid and which contains BM Unit registration data (including CALF values) for all Parties; and
- The CRA-I014, which the CRA issues to each Party and which contains BM Unit registration data (including CALF values) for that individual Party.

To amend the CALF data item definitions in these flows would require the CRA to increment the flow versions numbers, to indicate that the flow formats have changed. This would have a potential impact on the systems of National Grid (as recipient of the I020) and all Parties (as recipients of the I014). This would be the case even though National Grid has confirmed to ELEXON that it does not load/use CALF values from the I020, and only a small number of Parties would see an actual change in their CALF values through the I014. We believe that this impact and disruption would be disproportionate for what is otherwise a small change to a data item with no direct impact/benefit for the vast majority of Parties. The lead times which National Grid and Parties may require to amend their systems could also affect the feasibility of an early implementation.

Under our proposed solution, the CRA-I014 and CRA-I020 flows will therefore not be amended. These flows will continue to only support CALF values of decimal(8,7) as currently – i.e. values up to ±9.9999999.

Where a CALF value exceeds ±9.9999999, the actual CALF value will be entered in CRA systems and used in the Credit Cover calculation. However, it will be capped at ±9.9999999 in the CRA-I014 and CRA-I020 flows for reporting purposes. A clarification will be inserted into the NETA [Interface Definition and Design](#) (IDD) documents (Parts 1 and 2) so that this is clear to participants.

There will be no overall reduction in the transparency of CALF values. The CRA-I014 and CRA-I020 will still report the BM Unit Credit Assessment Export Capability (BMCAEC) and BM Unit Credit Assessment Import Capability (BMCAIC) calculated from the real CALF values and used in the Credit Cover calculation. In addition, the CRA will continue to publish the real CALF values for all BM Units in its 'Registered BM Units' spreadsheet on the Market Data Dashboard of the ELEXON Portal. As now, ELEXON will also publish all Parties' CALF values in the Operational Data section of the ELEXON Exchange on the ELEXON Portal.

This solution was suggested by ELEXON and was endorsed by the ISG at its meeting on 22 November 2011 (see ISG paper [130/07](#)). This approach also avoids incurring additional ELEXON/BSC Agent implementation costs of approximately £15k, although this is a second-order benefit.

In the longer-term, we understand that ELEXON is investigating the possibility of replacing GC/DC*CALF in the Credit Cover calculation for non-Interconnector/Credit Qualifying BM Units

¹ We have considered the option of amending the data definitions to decimal(8,4), as this would allow four digits before the decimal point while keeping the overall number of digits the same as currently. It would also reflect that ELEXON does not in practice set CALF values with more than four digits after the decimal point. However, this approach would result in a slightly higher systems impact (and therefore implementation cost) and we have therefore concluded that it does not offer any significant benefit over moving to decimal(11,7).

with estimated volumes based on recent metered data (from the new run introduced by Approved Modification P253²). This idea requires further exploration and analysis (as well as a Modification Proposal to change the BSC), and therefore could not be implemented before 2013. But the possibility that this CP could be superseded in a couple of years is another reason to keep its impacts/costs as low as possible.

Justification for Change:

By forcing some Parties to put up more Credit Cover than is actually needed to cover their indebtedness, the current BSC Systems constraint could be seen as a barrier to small Suppliers trading under the BSC. To date, two Parties have had maximum negative CALF values of -9.9999, of whom one is a small Supplier and the other is a consolidator for small Suppliers. Small Suppliers may be generally more likely to have an estimated average level of SVA embedded generation which exceeds their maximum estimated demand. Provision of Credit Cover can be a significant issue for small Suppliers, who find it more difficult to provide Letters of Credit and may have to provide cash instead. Removing the existing systems constraint on negative CALF values should therefore better facilitate competition and Applicable BSC Objective (c).³

The current systems constraint could also be considered arbitrary and potentially open to challenge, as neither the BSC nor the CALF Guidance Document envisage capping CALF values in the Credit Cover calculation. Removing the constraint should therefore also better facilitate the provisions of the BSC and Applicable BSC Objective (d).⁴

To which section of the Code does the CP relate, and does the CP facilitate the current provisions of the Code?

This CP supports the determination of CALF values under Section M1.5 of the Code, for the reasons we outline above.

Estimated Implementation Costs:

If this CP is implemented in the June 2012 Release, its implementation cost will be approximately £47k.

This comprises £42k in BSC Agent costs and £5k (20 man days) in ELEXON implementation effort.

Configurable Items Affected by Proposed Solution(s):

NETA IDD, Parts 1 and 2

Impact on Core Industry Documents or System Operator-Transmission Owner Code:

None.

Related Changes and/or Projects:

None.

Requested Implementation Date:

June 2012 Release

Reason:

Next available BSC Systems Release.

² 'Improving the accuracy of the credit calculation for SVA participants'.

³ 'Promoting effective competition in the generation and supply of electricity, and (so far as consistent therewith) promoting such competition in the sale and purchase of electricity'.

⁴ 'Promoting efficiency in the implementation and administration of the balancing and settlement arrangements'.

Version History:

Good Energy raised version 1.0 of CP1364 on 25 November 2011.

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Attachments: Yes

Attachment A – Draft redlined changes to NETA IDD Part 1 (3 pages)

Attachment B – Draft redlined changes to NETA IDD Part 2 (2 pages)