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MODIFICATION REPORT
MODIFICATION PROPOSAL P2 –
Revision of the Methodology for
Assessing Credit Indebtedness

Prepared by ELEXON on behalf of the Balancing
and Settlement Code Panel

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1 SUMMARY AND RECOMMENDATIONS

See the associated document P/29/008A for the Summary and Recommendations.

2 INTRODUCTION

This Report has been prepared by ELEXON Ltd., on behalf of the Balancing and Settlement Code Panel ('the Panel'), in accordance with the terms of the Balancing and Settlement Code ('BSC'). The BSC is the legal document containing the rules of the balancing mechanism and imbalance settlement process and related governance provisions. ELEXON is the company that performs the role and functions of the BSCCo, as defined in the BSC.

This Modification Report is addressed and furnished to the Gas and Electricity Markets Authority ('the Authority') and none of the facts, opinions or statements contained herein may be relied upon by any other person.

An electronic copy of this document can be found on the BSC website, at www.elexon.co.uk

3 PURPOSE AND SCOPE OF THE REPORT

BSC Section F sets out the procedures for progressing proposals to amend the BSC (known as 'Modification Proposals'. These include procedures for proposing, consulting on, developing, evaluating and reporting to the Authority on potential modifications.

The BSC Panel is charged with supervising and implementing the modification procedures. ELEXON provides the secretariat and other advice, support and resource required by the Panel for this purpose. In addition, if a modification to the Code is approved or directed by the Authority, ELEXON is responsible for overseeing the implementation of that amendment (including any consequential changes to systems, procedures and documentation).

A Modification Report must be prepared and submitted to the Authority in respect of each proposed modification and must contain:

- (a) The recommendation of the Panel as to whether or not the Proposed Modification or any Alternative Modification should be made;
- (b) The proposed Implementation Date for implementation of the Proposed Modification or any Alternative Modification;
- (c) The matters set out in Annex F-1 of the BSC. This will usually be in the form of the relevant Assessment Report where the Proposal has been submitted to a Modification Group prior to the Report Phase;
- (d) An explanation of the Panel's rationale should the Panel form a different view of any matters contained in the Modification Group Report; and
- (e) A summary of the representations made by Parties and interested third parties during the consultation undertaken in respect of the Proposed Modification and any Alternative Modification.

4 HISTORY OF PROPOSED MODIFICATION

Modification Proposal P2 was submitted by British Gas Trading Ltd. on 27th March 2001, and proposes that the calculation of indebtedness for credit-checking purposes should be enhanced to use actual prices and metered volumes. The proposal states that this would protect Parties from the expense of having to post inappropriate levels of credit cover, and also the risk of a defaulting Party having unsecured settlement liabilities.

The BSC Panel meeting on 5th April 2001 agreed that Modification Proposal P2 should be submitted to the Definition Procedure (as defined in section F2.5 of the Balancing and Settlement Code). This Definition Procedure was carried out by the Credit Modification Group, who concluded that Trading Parties are being exposed to significant risks and costs as a result of inaccuracies in the current credit-checking methodology.

The BSC Panel meeting on 31st May 2001 agreed the Definition Report prepared by the Modification Group, and agreed that Modification Proposal P2 should be submitted to the Assessment Procedure (as defined in section F2.6 of the Balancing and Settlement Code). In the course of the Assessment Procedure, the Modification Group issued for consultation and assessment a detailed description of two possible Modification Proposals:

- Modification Proposal P2, as proposed by British Gas Trading; and
- An Alternative Modification Proposal (developed by the Modification Group) which sought further to increase the accuracy of the credit-checking process by using a more accurate method of estimating indebtedness in the period prior to actual data becoming available.

Having reviewed the responses to this consultation, and assessed the costs and benefits of each Modification Proposal, the Modification Group concluded that Modification Proposal P2 would better facilitate the achievement of the Applicable BSC Objectives. Details of the analysis undertaken can be found in the Assessment Report.

The BSC Panel meeting on 26th July 2001 considered the Assessment Report prepared by the Credit Modification Group, and endorsed their recommendation that the draft Modification Report should recommend acceptance of Modification Proposal P2. The draft Modification Report was then issued for consultation.

5 DESCRIPTION OF PROPOSED MODIFICATION

A full description of Modification Proposal P2 can be found in Section 5.3 of the P2 Assessment Report. The key points are:

- In order to ensure accurate calculation of indebtedness, credit-checking should take into account not just Energy Imbalance charges, but also all the other Trading Charges calculated by the SAA system i.e. Residual Cashflow Reallocation Cashflow, BM Unit Cashflow, Non-Delivery Charges and Information Imbalances.
- The Settlement Administration Agent (SAA) Interim Information run will be the source of Trading Charge data for the indebtedness calculation. This means that indebtedness will be based on Trading Charges calculated by SAA for that portion of the 29-day credit period for which an Interim Information run has been performed. For the remainder of the 29-day credit period, indebtedness will be estimated on the basis of Credit Assessment Price (CAP) and Credit Assessment Load Factor (CALF) as currently.
- In order to allow the SAA Interim Information run to calculate meaningful Trading Charges, the SAA system will be enhanced to estimate metered volumes for Supplier BM Units. This will be done by apportioning the GSP Group Take for day D between Supplier BM Units in proportion to their market share on a recent comparable day for which data is available.

The following table summarises the method used to calculate indebtedness under Modification Proposal P2:

Data Used to Calculate Indebtedness Under Modification Proposal P2		
	Days With Interim Information Data (i.e. D-28 to D-7)	Days Without Interim Information Data (i.e. D-6 to D)
Price Used to Estimate Energy Imbalance	Actual SSP/SBP	Credit Assessment Price
Contract Volume Used to Estimate Energy Imbalance	Actual Contract Volumes	Actual Contract Volumes
Metered Volume Used to Estimate Energy Imbalance	CVA – actual metered volumes SVA – estimated volumes (derived from GSP Group Take, and actual market share 21 days previously)	CALF-based estimate (i.e. BMCAEC _i or BMCAIC _i)
Method Used to Estimate Other Trading Charges	Trading Charges calculated directly by SAA	None (although the Panel could take these other charges into account when setting CAP)

6 RATIONALE FOR PANEL RECOMMENDATIONS

The Panel recommendation to accept Modification Proposal P2 was based on the conclusions of the Credit Modification Group, that the Proposal would better facilitate the achievement of the Applicable BSC Objectives. A full description of the Modification Group's reasons for arriving at this conclusion can be found in Section 5.4 of the P2 Assessment Report. The key points are:

- The current methodology for assessing credit indebtedness is over-estimating the indebtedness of certain Parties, potentially obliging them to post unwarrantedly high levels of credit cover. Analysis suggests that these Parties may be having to provide up to £170 million of unwarranted credit cover, at an estimated cost per annum of £1.7 million;
- Conversely, the current methodology for assessing credit indebtedness is under-estimating the indebtedness of certain Parties by some £30 million in total. This potentially allows these Parties to post a level of credit cover that would be insufficient to cover their settlement liabilities in the event of default, with Parties in aggregate bearing the resultant risk;
- Analysis suggests that Modification Proposal P2 would decrease the cost of unwarranted credit from £1.7 million to £0.3 million per annum, as well as reducing considerably the risk of a Party going into default with insufficient credit cover to pay their settlement liabilities. These benefits appear to significantly outweigh the likely cost of implementing the Modification; and
- Implementation of Modification Proposal P2 would therefore remove a significant and material inefficiency in the operation of the balancing and settlement arrangements, and hence facilitate achievement of the BSC Objective in condition 7A(3)(d) of the Transmission License i.e. promoting efficiency in the implementation and administration of the balancing and settlement arrangements.
- It would seem likely that the unnecessary costs and risks imposed on Trading Parties by the current methodology for assessing credit indebtedness may also act as a deterrent to participation in the electricity market, particularly for those organisations with limited ability to raise additional funds. Implementation of Modification Proposal P2 would therefore also facilitate achievement of the BSC Objective in condition 7A(3)(c) of the Transmission License (i.e. promoting effective competition in the generation and supply of electricity).

It should be noted that Modification Proposal P2 does not entirely remove the inaccuracies in the credit-checking methodology, and that it would be possible to implement an Alternative Modification Proposal that reduced still further the unnecessary costs and risks arising from participation in the balancing and settlement arrangements. However, the view of the Modification Group is that such an Alternative Modification Proposal would not further facilitate the Applicable BSC Objectives:

- One approach to increasing further the accuracy of credit checking would be to use actual system prices immediately after Gate Closure (rather than 5 Working Days later, as in Modification Proposal P2). However, this would cause any volatility in system prices to be immediately reflected in credit-checking, potentially causing unpredictable increases in calculated indebtedness, and significantly increasing the costs and risks incurred by Trading Parties in managing their credit cover; and
- Another possible approach to increasing further the accuracy of credit checking would be to obtain more accurate estimates of metered volumes. This is the approach underlying the Alternative Modification Proposal developed by the Modification Group. However, assessment suggests that the additional cost savings achievable through such an approach are relatively minor, and are unlikely to justify the additional cost of implementation.

7 LEGAL TEXT TO GIVE EFFECT TO THE PROPOSED MODIFICATION

The legal text to give effect to Modification Proposal P2 can be found in Annex 2 to this report:

- Annex A2.1 contains a red-lined version of the text; and
- Annex A2.2 contains a clean version of the text.

8 ASSESSMENT

The Modification Group's assessment of the impact of Modification Proposal P2 can be found in sections 6 to 10 of the P2 Assessment Report. The key points are:

- Amendments are required to Sections M, T and X-2 of the Balancing and Settlement Code (BSC). The full text of the required amendments can be found in Annex 2 of this report.
- Minor changes are required to BSC Procedure BSCP01, to describe the new interface from the Settlement Administration Agent (SAA) to the Energy Contract Volume Aggregation Agent (ECVAA).
- Amendments are required to the ECVAA and SAA services and systems.
- There is no impact on Core Industry Documents.
- There is no impact on the business processes Trading Parties are required to undertake in order to meet their obligations under the BSC. However, those Trading Parties who elect to replicate the indebtedness calculations performed by ECVAA (in order to predict and/or verify their indebtedness) may need to update their systems to reflect the changes to ECVAA functionality.

9 SUMMARY OF REPRESENTATIONS

9.1 Consultation on Draft Modification Report

Copies of all the representations received in response to the Consultation on the Draft Modification Report can be found in the associated document P/29/008C. The responses can be summarised as follows:

- Nine representations were received in response to the consultation on the Draft Modification Report, all of which supported the recommendation to implement Modification Proposal P2. One of the representations (from Powergen) expressed disappointment that the Alternative Modification Proposal had not been accepted.
- Powergen expressed disappointment that it was not possible to implement Modification Proposal P2 sooner, pointing out that as a result of the delay, two more changes of season¹ would take place under the current methodology. They suggested that these seasonal changeover periods are the times when demand is most difficult to predict and hence when BSC Parties are most likely to suffer credit default from poor forecasting. They therefore asked for clarification of the reason for the delay, and suggested that the Panel should investigate an interim fix that will reduce BSC Parties' exposure to a defaulting BSC Party whilst the inadequate current methodology is still in existence. This issue is discussed further in section 9.1.1 below.
- Seeboard noted that the legal drafting in Annex 2 of the report didn't specify the rules for 'mapping' Settlement Periods on a clock change day to those on a non clock change day, and vice versa, and asked how market participants would be kept informed of changes to the rules. This issue is being addressed as part of the review of the drafting by ELEXON's legal advisers, and it is proposed to give a verbal update to the Panel meeting on 23rd August.
- British Energy pointed out that the metered volumes from the Interim Information run may include estimated data, which could lead to inaccuracies in calculated credit indebtedness. They therefore proposed that "a mechanism should be in place such that a party experiencing problems with meter data which affect its credit position can, with approval of the panel, seek to have appropriate rapid adjustments made to its credit position. This could comprise a fast track manually input 'adjuster' to the metered volumes in the credit calculation." This issue is discussed further in section 9.1.2 below.
- Innogy expressed the view that, in order to maintain awareness of their credit positions, Parties are likely to replicate the ECVAAs calculations. They therefore suggested that the decision on whether to implement Modification Proposal P2 should consider the cost of changes to market participants' systems.

9.1.1 Possible Requirement for Interim Solution

As noted above, the representation from Powergen expressed concern over the length of time until the proposed implementation of Modification Proposal P2, and the level of risk that BSC Parties would face in the meantime. It proposed that the Panel should consider an interim fix to reduce BSC Parties' exposure to a defaulting BSC Party whilst the inadequate current methodology is still in existence.

¹ The draft Modification Report proposed an Implementation Date of [1 June 2002], but noted that ELEXON was undertaking an exercise to confirm the Implementation Dates of Modification Proposal P2 and of other Proposed Modifications (taking into account their interaction with the BSC Systems Release 2 project and with each other). Following completion of this exercise, an Implementation Date of 30 September 2002 is now proposed.

Presumably such an interim fix would comprise some mechanism (outside the scope of the ECVAAs system) for monitoring BSC Parties' actual indebtedness, and taking appropriate action if this exceeded the level of credit cover posted.

Should the Panel wish to pursue the possibility of an interim fix, ELEXON propose that the Credit Modification Group should be requested to consider possible solutions.

9.1.2 Possible Need for Appeals Procedure

As noted above, the representation from British Energy suggested that an 'appeals procedure' was required to allow the Panel to adjust a Party's credit position, should the calculated credit position be incorrect as a result of errors in the calculation of credit indebtedness.

ELEXON suggests that this is a different issue to that addressed by Modification Proposal P2 (albeit a related one), and that it should not be considered as part of the P2 process. Any BSC Party who wishes to has the option of raising it as a separate Modification Proposal in accordance with Section F of the Code.

9.2 Previous Consultations on Modification Proposal P2

Summaries and copies of previous consultation responses received and considered by the Modification Group can be found as follows:

- The representations received under the initial consultation on Modification Proposal P2 are addressed in the P2 Definition Report, copies of which are available from the ELEXON website (www.elexon.co.uk).
- A second consultation on the detail of Modification Proposal P2 was undertaken during the Assessment Procedure. The representations received in response to this consultation can be found in the P2 Assessment Report. This Modification Report should be read in conjunction with that Assessment Report.

ANNEX 1 – REPRESENTATIONS

See separate document P/29/008C for the representations received in response to the Consultation on the Draft Modification Report.

ANNEX 2 – LEGAL TEXT TO GIVE EFFECT TO MODIFICATION PROPOSAL P2

Proposed text to amend the BSC is as follows. Section A2.1 is the conformed version (using redline and strikethrough to show the amendments), while A2.2 is the clean version. It should be noted that this text has not yet been legally reviewed. It is proposed to present a verbal update on the outcome of this review to the Panel meeting on 23rd August 2001.

In particular it should be noted that the proposed text for section T4.2.2 does not include rules for mapping Settlement Periods on a clock change day to those on a non-clock change day, or vice versa. ELEXON will seek legal advice during the Reporting Phase on whether such rules should be included.

A2.1 – Conformed Version

Sections M1.2 to M1.4 amended as follows:

1.2 Energy Indebtedness

1.2.1 For the purposes of the Code:

- (a) in relation to a Settlement Period the "**Energy Indebtedness**" (EI_{pj} , in MWh) of a Trading Party shall be the algebraic sum of the:

i) Actual Energy Indebtedness for those days d within the 29 day period for which (at Gate Closure for period j), Gate Closure has passed for the first Settlement Period of the day following that on which the Settlement Timetable specifies the Interim Information Settlement Run for day d is to take place (subject to paragraph T1.4).

ii) Credit Assessment Energy Indebtedness for those periods in a day d within the 29 day period that doesn't meet the above condition;
~~Credit Assessment Energy Indebtedness of that Party in relation to that Settlement Period and all prior Settlement Periods falling within the period of 29 Settlement Days expiring on (and including) the Settlement Day which includes that Settlement Period;~~

- (b) a reference to a Trading Party's Energy Indebtedness at any time is to its Energy Indebtedness in relation to the latest Settlement Period for which Gate Closure occurred before such time.

1.2.2 For the purposes of paragraph 1.2.1, the Credit Assessment Energy Indebtedness (CEI_{pj} , in MWh) of a Trading Party in relation to a Settlement Period shall be determined as follows:

$$CEI_{pj} = - (\sum_{a,i} CAQCE_{iaj} - \sum_a QABC_{aj})$$

where:

- (a) summation on 'a' extends to the Production Energy Account and Consumption Energy Account of the Trading Party, and
- (b) $CAQCE_{iaj}$ is the Credit Assessment Credited Energy Volume in accordance with paragraph 1.2.3.

1.2.3 The Credit Assessment Credited Energy Volume ($CAQCE_{iaj}$, in MWh) shall be determined:

- (a) for each BM Unit which is a Consumption BM Unit, and for each Energy Account which is a Subsidiary Energy Account for that BM Unit, as follows:

$$CAQCE_{iaj} = (SPD * BMCAIC_i) * (QMPR_{iaj}/100) + QMFR_{iaj}$$

- (b) for each BM Unit which is a Production BM Unit, and for each Energy Account which is a Subsidiary Energy Account for that BM Unit, as follows:

$$CAQCE_{iaj} = (SPD * BMCAEC_i) * (QMPR_{iaj}/100) + QMFR_{iaj}$$

- (c) for each BM Unit which is a Consumption BM Unit, for the Energy Account which is the Lead Energy Account for that BM Unit, as follows:

$$CAQCE_{iaj} = (SPD * BMCAIC_i) - \sum_a CAQCE_{iaj}$$

- (d) for each BM Unit which is a Production BM Unit, for the Energy Account which is the Lead Energy Account for that BM Unit, as follows:

$$CAQCE_{iaj} = (SPD * BMCAEC_i) - \sum_a CAQCE_{iaj}$$

where, for the purposes of paragraphs 1.2.3(c) and 1.2.3(d) only, \sum_a represents the sum over all Energy Accounts other than the Lead Energy Account.

- 1.2.4 Upon any change in the value of BM Unit Credit Assessment Export Capability or BM Unit Credit Assessment Import Capability for a BM Unit, values of Energy Indebtedness (for relevant Trading Parties) shall be determined (in relation to Settlement Periods in and from the day on which, in accordance with paragraph 1.6, the change becomes effective) as though such change were effective with effect from the first of the 29 days referred to in paragraph 1.2.1.

- 1.2.5 For the purposes of paragraph 1.2.1, the Actual Energy Indebtedness (AEI_p in MWh) shall be determined as follows:

$$\underline{AEI_p = \text{Trading Charges} / \text{CAP}}$$

where:

- (a) CAP is the Credit Assessment Price in accordance with paragraph 1.4, and
(b) The Trading Charges are the net credit and debit amount, determined by the Interim Information Settlement Run, for the Settlement Day for all Trading Charges in accordance with paragraph T5.3.3 (c).

- 1.2.6 The ECVAA shall determine each Trading Party's Energy Indebtedness in relation to each Settlement Period as soon as reasonably practicable after Gate Closure for that Settlement Period.

1.3 Authority for steps under Sections M and P

- 1.3.1 In relation to the provisions of this Section M and Section P (and without prejudice to the generality of Section U2.6, but without prejudice to the ability of a Trading Party to raise a Trading Dispute), each Trading Party:

- (a) acknowledges that the calculation of Energy Indebtedness and other matters to be calculated under this Section M involves the possibility of error;
- (b) agrees that (subject to paragraph 3.2.4) the steps provided for in paragraph 3 and Sections P2.4 and P3.4 are to be taken notwithstanding any such error;
- (c) acknowledges that such Trading Party may avoid any such steps being taken, including by providing additional Credit Cover (on the basis that it may withdraw such additional Credit Cover in accordance with paragraph 2.3.3 following resolution of such error).

1.3.2 Each Trading Party:

- (a) hereby authorises the Panel, any Panel Committee, BSCCo, the ECVAA and the SAA to take any step contemplated by paragraph 3 and Sections P2.4 and P3.4; and
- (b) agrees that (without prejudice to the generality of any other provision of the Code which limits or excludes liability), the Panel, each Panel Committee, BSCCo, and each BSC Agent shall have no liability (in contract or tort including negligence or otherwise) to such Trading Party for the taking of any such step, except as provided in paragraph 4, and waives any such liability that any such body or person might otherwise have.

1.3.3 Nothing in paragraph 1.3.2(b) shall exclude or limit the liability of any person for death or personal injury resulting from that person's negligence.

1.4 Credit Assessment Price

1.4.1 For the purposes of the Code the "Credit Assessment Price" shall be such amount (in £/MWh) as the Panel shall from time to time determine, after consultation with Trading Parties, as the price which it would be appropriate to use to determine the equivalent financial amount of Trading Parties' Energy Indebtedness for the purposes of this Section M.

1.4.2 Whenever the Panel determines to revise the Credit Assessment Price:

- (a) the Panel shall notify the revised Credit Assessment Price to each Trading Party, ~~and~~ the FAA and the ECVAA;
- (b) the revised Credit Assessment Price shall be effective for the purposes of the Code from the date specified by the Panel, which shall not be earlier than the 20th Business Day following the date of notification by the Panel under paragraph (a).

No further changes until new section T4.2.2 added as follows:

4.2.2 For the purposes of the Interim Information Settlement Run only, the BM Unit Metered Volume for Supplier BM Units will be determined as follows:

$$QM_{ij} = GSPGT_{Hi} * QM_{ij} / GSPGT_{Hi}$$

where:

- (a) GSPGT_{Hi} is the GSP Group Take in period j for the GSP Group H in which BM Unit i is registered, and
- (b) QM_{ij} and GSPGT_{Hi} are the values of BM Unit Metered Volume and GSP Group Take in Settlement Period j', and
- (c) Settlement Period j' is the equivalent Settlement Period on Settlement Day d', to Settlement Period j on Settlement Day d, and
- (d) Settlement Day d' is the most recent Settlement Day, that is the same week day as Settlement Day d, for which the Initial Settlement Run has taken place.

No further changes until new section T5.3.5 added as follows:

5.3.5 In relation to each Settlement Day, following the Interim Information Run, the SAA shall provide to the ECVAA the data and information specified in paragraphs 5.3.2 to 5.3.4, relating to each Interim Information Run, on the day that the Settlement Calendar specifies the Interim Information Run for the Settlement Day is to take place (subject to paragraph 1.4).

No further changes until definitions in Table X-2 of Annex X-2 amended as follows:

<u>Actual Energy Indebtedness</u>	<u>AEI_p</u>	<u>MWh</u>	<u>The amount determined as such in accordance with Section M1.2.5.</u>
...
			<u>The Actual Energy Indebtedness is the net energy contribution determined to be allocated to a Trading Party for Settlement Periods as defined in Section M1.2.1.</u>

BM Unit Metered Volume	QM _{ij}	MWh	In respect of a Settlement Period:
			(i) in relation to a BM Unit (other than an Interconnector BM Unit) comprising CVA Metering Systems, the Metered Volume (as determined in accordance with Section R);
			(ii) in relation to an Interconnector BM Unit of an Interconnector User, the quantity determined in accordance with Section R7.4.2 (but without prejudice to Section T1.4.6);
			(iii) in relation to an Interconnector BM Unit allocated to an Interconnector Error Administrator, the quantity determined in accordance with Section T4.1; and
			(iv) in relation to a Supplier BM Unit,

			the quantity determined in accordance with Section T4.2.1 and <u>T4.2.2</u> .
...

Credit Assessment Energy Indebtedness	CEI _{pj}	MWh	The amount determined as such in accordance with Section M1.2.2. <i>The Credit Assessment Energy Indebtedness is the net energy contribution determined to be allocated to a Trading Party for the purposes of calculating the Energy Indebtedness in Settlement Period j <u>Settlement Periods as defined in Section M1.2.1</u>.</i>
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No further changes until following acronym added to Table X-3 of Annex X-2:

<u>AEI_p</u>	<u>MWh</u>	<u>Actual Energy Indebtedness</u>
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A2.2 – Clean Version

Sections M1.2 to M1.4 amended as follows:

1.2 Energy Indebtedness

1.2.1 For the purposes of the Code:

- (a) in relation to a Settlement Period the "**Energy Indebtedness**" (EI_{pj}, in MWh) of a Trading Party shall be the algebraic sum of the:
 - i) Actual Energy Indebtedness for those days d within the 29 day period for which (at Gate Closure for period j), Gate Closure has passed for the first Settlement Period of the day following that on which the Settlement Timetable specifies the Interim Information Settlement Run for day d is to take place (subject to paragraph T1.4).
 - ii) Credit Assessment Energy Indebtedness for those periods in a day d within the 29 day period that doesn't meet the above condition;
- (b) a reference to a Trading Party's Energy Indebtedness at any time is to its Energy Indebtedness in relation to the latest Settlement Period for which Gate Closure occurred before such time.

1.2.2 For the purposes of paragraph 1.2.1, the Credit Assessment Energy Indebtedness (CEI_{pj}, in MWh) of a Trading Party in relation to a Settlement Period shall be determined as follows:

$$CEI_{pj} = - (\sum_{a,i} CAQCE_{iaj} - \sum_a QABC_{aj})$$

where:

- (a) summation on 'a' extends to the Production Energy Account and Consumption Energy Account of the Trading Party, and

- (b) CAQCE_{iaj} is the Credit Assessment Credited Energy Volume in accordance with paragraph 1.2.3.

1.2.3 The Credit Assessment Credited Energy Volume (CAQCE_{iaj}, in MWh) shall be determined:

- (a) for each BM Unit which is a Consumption BM Unit, and for each Energy Account which is a Subsidiary Energy Account for that BM Unit, as follows:

$$CAQCE_{iaj} = (SPD * BMCAIC_i) * (QMPR_{iaj}/100) + QMFR_{iaj}$$

- (b) for each BM Unit which is a Production BM Unit, and for each Energy Account which is a Subsidiary Energy Account for that BM Unit, as follows:

$$CAQCE_{iaj} = (SPD * BMCAEC_i) * (QMPR_{iaj}/100) + QMFR_{iaj}$$

- (c) for each BM Unit which is a Consumption BM Unit, for the Energy Account which is the Lead Energy Account for that BM Unit, as follows:

$$CAQCE_{iaj} = (SPD * BMCAIC_i) - \sum_a CAQCE_{iaj}$$

- (d) for each BM Unit which is a Production BM Unit, for the Energy Account which is the Lead Energy Account for that BM Unit, as follows:

$$CAQCE_{iaj} = (SPD * BMCAEC_i) - \sum_a CAQCE_{iaj}$$

where, for the purposes of paragraphs 1.2.3(c) and 1.2.3(d) only, \sum_a represents the sum over all Energy Accounts other than the Lead Energy Account.

1.2.4 Upon any change in the value of BM Unit Credit Assessment Export Capability or BM Unit Credit Assessment Import Capability for a BM Unit, values of Energy Indebtedness (for relevant Trading Parties) shall be determined (in relation to Settlement Periods in and from the day on which, in accordance with paragraph 1.6, the change becomes effective) as though such change were effective with effect from the first of the 29 days referred to in paragraph 1.2.1.

1.2.5 For the purposes of paragraph 1.2.1, the Actual Energy Indebtedness (AEI_p in MWh) shall be determined as follows:

$$AEI_p = \text{Trading Charges} / \text{CAP}$$

where:

- (c) CAP is the Credit Assessment Price in accordance with paragraph 1.4, and
(d) The Trading Charges are the net credit and debit amount, determined by the Interim Information Settlement Run, for the Settlement Day for all Trading Charges in accordance with paragraph T5.3.3 (c).

1.2.6 The ECVAA shall determine each Trading Party's Energy Indebtedness in relation to each Settlement Period as soon as reasonably practicable after Gate Closure for that Settlement Period.

1.3 Authority for steps under Sections M and P

1.3.1 In relation to the provisions of this Section M and Section P (and without prejudice to the generality of Section U2.6, but without prejudice to the ability of a Trading Party to raise a Trading Dispute), each Trading Party:

- (a) acknowledges that the calculation of Energy Indebtedness and other matters to be calculated under this Section M involves the possibility of error;
- (b) agrees that (subject to paragraph 3.2.4) the steps provided for in paragraph 3 and Sections P2.4 and P3.4 are to be taken notwithstanding any such error;
- (c) acknowledges that such Trading Party may avoid any such steps being taken, including by providing additional Credit Cover (on the basis that it may withdraw such additional Credit Cover in accordance with paragraph 2.3.3 following resolution of such error).

1.3.2 Each Trading Party:

- (a) hereby authorises the Panel, any Panel Committee, BSCCo, the ECVAA and the SAA to take any step contemplated by paragraph 3 and Sections P2.4 and P3.4; and
- (b) agrees that (without prejudice to the generality of any other provision of the Code which limits or excludes liability), the Panel, each Panel Committee, BSCCo, and each BSC Agent shall have no liability (in contract or tort including negligence or otherwise) to such Trading Party for the taking of any such step, except as provided in paragraph 4, and waives any such liability that any such body or person might otherwise have.

1.3.3 Nothing in paragraph 1.3.2(b) shall exclude or limit the liability of any person for death or personal injury resulting from that person's negligence.

1.4 Credit Assessment Price

1.4.1 For the purposes of the Code the '**Credit Assessment Price**' shall be such amount (in £/MWh) as the Panel shall from time to time determine, after consultation with Trading Parties, as the price which it would be appropriate to use to determine the equivalent financial amount of Trading Parties' Energy Indebtedness for the purposes of this Section M.

1.4.2 Whenever the Panel determines to revise the Credit Assessment Price:

- (a) the Panel shall notify the revised Credit Assessment Price to each Trading Party, the FAA and the ECVAA;
- (b) the revised Credit Assessment Price shall be effective for the purposes of the Code from the date specified by the Panel, which shall not be earlier than the 20th Business Day following the date of notification by the Panel under paragraph (a).

No further changes until new section T4.2.2 added as follows:

4.2.2 For the purposes of the Interim Information Settlement Run only, the BM Unit Metered Volume for Supplier BM Units will be determined as follows:

$$QM_{ij} = GSPGT_{Hj} * QM_{ij'} / GSPGT_{Hj'}$$

where:

- (e) $GSPGT_{Hj}$ is the GSP Group Take in period j for the GSP Group H in which BM Unit i is registered, and
- (f) $QM_{ij'}$ and $GSPGT_{Hj'}$ are the values of BM Unit Metered Volume and GSP Group Take in Settlement Period j', and
- (g) Settlement Period j' is the equivalent Settlement Period on Settlement Day d', to Settlement Period j on Settlement Day d, and
- (h) Settlement Day d' is the most recent Settlement Day, that is the same week day as Settlement Day d, for which the Initial Settlement Run has taken place.

No further changes until new section T5.3.5 added as follows:

5.3.5 In relation to each Settlement Day, following the Interim Information Run, the SAA shall provide to the ECVAA the data and information specified in paragraphs 5.3.2 to 5.3.4, relating to each Interim Information Run, on the day that the Settlement Calendar specifies the Interim Information Run for the Settlement Day is to take place (subject to paragraph 1.4).

No further changes until definitions in Table X-2 of Annex X-2 amended as follows:

Actual Energy Indebtedness	AEI_p	MWh	The amount determined as such in accordance with Section M1.2.5. <i>The Actual Energy Indebtedness is the net energy contribution determined to be allocated to a Trading Party for Settlement Periods as defined in Section M1.2.1.</i>
...

BM Unit Metered Volume	QM_{ij}	MWh	In respect of a Settlement Period: (i) in relation to a BM Unit (other than an Interconnector BM Unit) comprising CVA Metering Systems, the Metered Volume (as determined in accordance with Section R); (ii) in relation to an Interconnector BM Unit of an Interconnector User, the quantity determined in accordance with Section R7.4.2 (but without
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			<p>prejudice to Section T1.4.6);</p> <p>(iii) in relation to an Interconnector BM Unit allocated to an Interconnector Error Administrator, the quantity determined in accordance with Section T4.1; and</p> <p>(iv) in relation to a Supplier BM Unit, the quantity determined in accordance with Section T4.2.1 and T4.2.2.</p>
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... ..

Credit Assessment Energy Indebtedness	CEI _{pj}	MWh	<p>The amount determined as such in accordance with Section M1.2.2.</p> <p><i>The Credit Assessment Energy Indebtedness is the net energy contribution determined to be allocated to a Trading Party for Settlement Periods as defined in Section M1.2.1.</i></p>
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No further changes until following acronym added to Table X-3 of Annex X-2:

AEI _p	MWh	Actual Energy Indebtedness
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