



MODIFICATION REPORT for Modification Proposal P140

Revised Credit Cover methodology for Interconnector BM Units

Prepared by: ELEXON on behalf of the BSC Panel

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This document has been distributed in accordance with Section F2.1.10¹ of the Balancing and Settlement Code.

RECOMMENDATIONS

Having considered and taken into due account the contents of this report, the Balancing and Settlement Code Panel recommends:

- **that Proposed Modification P140 should be made;**
- **the P140 Implementation Date of 23 February 2005 (if an Authority decision is received on or before 29 June 2004) or the 29 June 2005 (if the Authority decision is received after 29 June 2004 but on or before 3 November 2004); and**
- **the proposed text for modifying the Code, as set out in the Modification Report.**

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¹ The current version of the Balancing and Settlement Code (the 'Code') can be found at www.elexon.co.uk/ta/bscrel_docs/bsc_code.html

CONTENTS TABLE

Recommendations	1
Summary of impacted parties and documents	2
1 Description of Proposed Modification and assessment against the Applicable BSC Objectives	2
1.1 Modification Proposal.....	2
1.2 Proposed Modification.....	2
1.3 Issues raised by the Proposed Modification	2
1.4 Assessment of how the Proposed Modification better facilitates Applicable BSC Objectives...	2
1.5 Modification Group's cost benefit analysis of Proposed Modification	2
1.6 Alternative Modification	2
1.7 Governance and regulatory framework assessment	2
2 Costs.....	2
3 Rationale for Panel's recommendations	2
4 Impact on BSC Systems and Parties	2
4.1 BSCCo	2
4.1.1 Removal of process to assign seasonal CALF values	2
4.1.2 Modelling and explanation of Credit Cover Percentage	2
4.1.3 Implementation effort.....	2
4.2 BSC Systems	2
4.3 Parties and Party Agents	2
5 Impact on Code and documentation	2
5.1 Balancing and Settlement Code	2
5.2 Code Subsidiary Documents	2
5.3 Configurable items	2
5.4 BSCCo Memorandum and Articles of Association	2
5.5 Impact on Core Industry Documents and supporting arrangements	2
6 Summary of consultations	2
6.1 Panel's recommendation	2
6.2 Legal text	2
6.3 Recommended Implementation Date	2
6.4 Further comments	2
6.5 Comments and views of the Panel.....	2
7 Summary of Transmission Company analysis	2
7.1 Analysis	2
7.2 Comments and views of the Panel	2
8 Document control.....	2
8.1 Authorities	2
8.2 References.....	2
Annex 1 Legal text	2
Annex 2 Modification Group details	2
Annex 3 Consultation responses.....	2
Annex 4 Clarification of Costs	2

SUMMARY OF IMPACTED PARTIES AND DOCUMENTS

The following parties/documents have been identified as being potentially impacted by Modification Proposal P140.

Parties	Sections of the BSC	Code Subsidiary Documents
Suppliers	<input type="checkbox"/>	A <input type="checkbox"/> BSC Procedures <input checked="" type="checkbox"/>
Generators	<input type="checkbox"/>	B <input type="checkbox"/> Codes of Practice <input type="checkbox"/>
Licence Exemptable Generators	<input type="checkbox"/>	C <input type="checkbox"/> BSC Service Descriptions <input checked="" type="checkbox"/>
Transmission Company	<input checked="" type="checkbox"/>	D <input type="checkbox"/> Service Lines <input type="checkbox"/>
Interconnector	<input checked="" type="checkbox"/>	E <input type="checkbox"/> Data Catalogues <input checked="" type="checkbox"/>
Distribution System Operators	<input type="checkbox"/>	F <input type="checkbox"/> Communication Requirements Documents <input type="checkbox"/>
Party Agents		
Data Aggregators	<input type="checkbox"/>	G <input type="checkbox"/> Reporting Catalogue <input checked="" type="checkbox"/>
Data Collectors	<input type="checkbox"/>	H <input type="checkbox"/> MIDS <input type="checkbox"/>
Meter Operator Agents	<input type="checkbox"/>	J <input type="checkbox"/>
ECVNA	<input type="checkbox"/>	K <input type="checkbox"/>
MVRNA	<input type="checkbox"/>	L <input type="checkbox"/>
BSC Agents		
SAA	<input type="checkbox"/>	M <input checked="" type="checkbox"/> Ancillary Services Agreements <input type="checkbox"/>
FAA	<input type="checkbox"/>	N <input type="checkbox"/> Master Registration Agreement <input type="checkbox"/>
BMRA	<input type="checkbox"/>	O <input type="checkbox"/> Data Transfer Services Agreement <input type="checkbox"/>
ECVAA	<input checked="" type="checkbox"/>	P <input type="checkbox"/> British Grid Systems Agreement <input type="checkbox"/>
CDCA	<input type="checkbox"/>	Q <input checked="" type="checkbox"/> Use of Interconnector Agreement <input type="checkbox"/>
TAA	<input type="checkbox"/>	R <input type="checkbox"/> Settlement Agreement for Scotland <input type="checkbox"/>
CRA	<input checked="" type="checkbox"/>	S <input type="checkbox"/> Distribution Codes <input type="checkbox"/>
Teleswitch Agent	<input type="checkbox"/>	T <input type="checkbox"/> Distribution Use of System Agreements <input type="checkbox"/>
SVAA	<input type="checkbox"/>	U <input type="checkbox"/> Distribution Connection Agreements <input type="checkbox"/>
BSC Auditor	<input type="checkbox"/>	V <input type="checkbox"/>
Profile Administrator	<input type="checkbox"/>	W <input type="checkbox"/> Internal Working Procedures <input checked="" type="checkbox"/>
Certification Agent	<input type="checkbox"/>	X <input type="checkbox"/> Transmission Licence <input type="checkbox"/>
MIDP	<input type="checkbox"/>	
TLFA	<input type="checkbox"/>	
Other Agents		
SMRA	<input type="checkbox"/>	
Data Transmission Provider	<input type="checkbox"/>	

X = Identified in Report for last Procedure
N = Newly identified in this Report

1 DESCRIPTION OF PROPOSED MODIFICATION AND ASSESSMENT AGAINST THE APPLICABLE BSC OBJECTIVES

1.1 Modification Proposal

Modification Proposal P140 "Revised Credit Cover Methodology for Interconnector BM Units" ('P140') was raised by EdF Trading Ltd on 21 August 2003 (reference 1).

The Proposer contends that the current calculation of Credit Assessment Energy Indebtedness (CEI) is not creating a representative estimation of the level of credit risk that Interconnector BM Units present to the market. The CEI calculation estimates the Energy Indebtedness of a Party from the difference between their Account Bilateral Contract Volume (QABC) and their Credit Assessment Credited Energy Volume (CAQCE). Its CAQCE is a composite of the aggregated BM Unit Credit Assessment Import and Export Capabilities (BMCAIC/BMCAEC) for its BM Units multiplied by the Settlement Period Duration (SPD). BMCAIC/BMCAEC is in turn calculated from the Credit Assessment Load Factor (CALF) and Generation and Demand Capacity (GC/DC) values effective for the BM Unit.

Current CALF methodologies seek to make the BMCAIC/BMCAEC values for a BM Unit equivalent to the average load of the BM Unit during a defined period, usually the equivalent season of the preceding year. Thus the CEI generated for a BM Unit will reflect the deviation of its current behaviour from its historical load pattern.

The Proposer contends that historical behaviour is not a realistic guide to current and future trading activity for Interconnector BM Units. This may result in considerable deviation between CAQCE and QABC at any given time, resulting in large magnitudes of either positive or negative CEI being generated. As a consequence, the assessment of potential liabilities, in terms of future Trading Charges, may be significantly inaccurate for Interconnector Users.

The Proposer believes that this is burdensome upon Interconnector Users for two reasons. Firstly, as it necessitates the lodging of excessively high levels of Credit Cover to address periods of peak positive CEI. Secondly, as it necessitates very frequent monitoring of their Credit Cover position.

P140 proposes that the CEI calculation be modified such that CAQCE for Interconnector BM Units be based upon Period FPN (FPN_{ij}) rather than CALF and GC/DC.

It is contended that this would more accurately reflect the actual behaviour of the BM Unit. FPN_{ij} values are considered to be deemed Metered Volumes for Interconnector BM Units, and will only fail to be met in instances where there are technical failures on an Interconnector. Such failures are infrequent.

It is not proposed to apply this methodology to other BM Unit types.

The Proposer believes that this methodology would not be discriminatory as all Interconnector BM Units would be treated identically, and the levels of Credit Cover required as a result of this calculation would be representative of the risk they pose to the market.

The Proposer therefore believes that P140 would better facilitate both Applicable BSC Objectives (c) and (d), through 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; and promoting efficiency in the implementation and administration of the balancing and settlement arrangements.

1.2 Proposed Modification

The half hourly calculation of Credit Cover Percentage (CCP) conducted by the ECVAA after each Gate Closure would be modified such that the CAQCE generated for each Interconnector BM Unit is based upon its FPN_j. The value of FPN_j will be calculated by the ECVAA from the FPN data received for that BM Unit from the Transmission Company, pursuant to suggested new clause Q6.1A.1.

If FPN data has not been received from the Transmission Company for the latest Settlement Period at the time of the CCP calculation, the ECVAA would default the FPN_{ij} used to that calculated for the preceding Settlement Period. This defaulted data would be replaced by actual data in the next ECVAA calculation after receipt of such data.

These changes will be adopted without delaying the timing of the CCP calculation.

The Modification Group's deliberations on the Proposed Modification are detailed within the Assessment Report for Modification Proposal P140 (reference 11).

1.3 Issues raised by the Proposed Modification

The following issues were considered during the Assessment of Proposed Modification P140:

- Principles of Credit Cover and the Energy Indebtedness (EI) calculation;
- Current rules for calculating CEI;
- Current rules for calculating CAQCE;
- Previous ISG and SSMG discussion on this issue;
- Cost/benefit analysis of the Proposed Modification;
- Impact upon BSC Systems, Parties, BSC Agents and the BSCCo;
- Whether the Modification Proposal is unduly discriminatory against other classes of Party;
- Legal text drafting; and
- Implementation Date.

These issues are discussed in the Assessment Report (reference 11) and are not covered further here.

1.4 Assessment of how the Proposed Modification better facilitates Applicable BSC Objectives

The Modification Group considered that the benefits identified by its analysis clearly outweighed the costs. It is perceived that the majority of these benefits relate to the better facilitation of Applicable BSC Objective (c) - '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.'

Of greatest importance was that P140 would considerably reduce the risk to the market of Interconnector Users accumulating unsecured liabilities. The current arrangements can lead to circumstances where the CEI estimation of Trading Charges is a significant underestimate, with analysis indicating that at peak times the Energy Indebtedness of the Interconnector community has been under-estimated by nearly £58m. There is clearly a risk that an Interconnector User could default on making payments of Trading Charges whilst having insufficient Credit Cover lodged. In the event that a Party defaulting on payments runs out of Credit Cover, the FAA would recover the outstanding amounts from all other Trading Parties on the basis of their Default Shares, pursuant to Section N9 of the Code.

An additional benefit would be a reduction in barriers to entry for Interconnector Users. Trading Parties who wish to avoid Credit Default need to lodge sufficient Credit Cover in order that their CCP, which expresses their Energy Indebtedness divided by their Credit Cover, does not breach the thresholds specified in Section M of the Code. The current calculation can create acute short term spikes in positive CEI for Interconnector Users that are unrelated to actual Trading Charges purely because they are exporting greater volumes to, or importing lesser volumes from, the Total System than they were during the equivalent BSC Season of the preceding year. This may result in an over provision of Credit Cover for this BM Unit type that may disincentivise new market entrants. This also creates a distortion in that Interconnector Users may be putting up more credit than other Parties for the same level of indebtedness.

P140 would also provide for better accuracy in the calculation of Energy Indebtedness for Interconnector BM Units therefore reducing an unnecessarily onerous requirement for Energy Indebtedness monitoring, with associated costs, for Interconnector Users when compared to Lead Parties of other BM Unit types.

It is also perceived that P140 may better facilitate, to a lesser extent, Applicable BSC Objective (d) – ‘Promoting efficiency in the implementation and administration of the balancing and settlement arrangements.’ This would result from a reduction in effort required by BSCCo to handle Interconnector CALF issues such as seasonal calculation and appeals processes.

1.5 Modification Group’s cost benefit analysis of Proposed Modification

In assessing the Proposed Modification the Modification Group believed that the Proposed Modification would result in the following BSC Agent costs being incurred²:

For BSC Agent changes: £196,264 in change specific costs, and £299,765 in release costs³, resulting from changes to:

- ECVAA software;
- Interface Definition Document (IDD) Part 1;
- IDD Part 2;
- ECVAA User Requirements Specification;
- ECVAA System Specification;
- ECVAA Design Specification;
- CRA LWI;
- Planned and unplanned Outage Procedures;
- Disaster Recovery Procedures; and
- software testing.

A further annual maintenance charge of £27,477 would be incurred, based upon 14% of the change specific price.

The Modification Group analysed the accuracy of both the current and the proposed methodology in predicting the BM Unit Metered Volumes (QM_{ij}) of Interconnector BM Units as it believed that a key determinant of P140’s benefits must be the extent to which it more accurately estimates BM Unit Metered Volumes.

² These are detailed in greater depth in Section 2 of this document.

³ It should be noted that release costs given are those were P140 to be implemented as a standalone release. There would be some reduction in these costs were it to be incorporated into a release containing other changes.

For each Interconnector BM Unit, for each Settlement Period, on each Settlement Date since NETA go-live, the discrepancy between FPN_{ij} and QM_{ij} , and between CAQCE (currently based upon CALF and GC/DC) and QM_{ij} was calculated⁴. This data was then aggregated to provide a daily indication of the absolute discrepancy between estimation and outcome for both methods of predicting QM_{ij} .

This analysis has been conducted in both MWh and financial terms, with MWh figures converted to £ terms through multiplication by the VAT inclusive Credit Assessment Price (CAP) prevalent at that time. The CAP effective was £29.38 including VAT from 27 March 2001 to 9 October 2003 inclusive, and £21.15 including VAT from 10 October 2003 to the present day.

CEI most typically comprises 8/29ths of the 29 day window over which Energy Indebtedness is assessed. The analysis was therefore focused upon rolling eight day averages.

Headline figures from this analysis are shown in Figure 5 below. In interpreting this table, it should be remembered that the CEI calculation treats a Party as though it was short (i.e. owing money) during those periods where positive CEI is calculated and as though it was long (i.e. owed money) during those periods where negative CEI is calculated.

	Current methodology			Proposed methodology		
	In MWh (estimated imbalance)	In £ (estimated Trading Charges (A))	Cost of Credit ((A) x 1.71%)	In MWh (estimated imbalance)	In £ (estimated Trading Charges (B))	Cost of Credit ((B) x 1.71%)
Maximum under-estimation	-1,961,968	- £ 57,632,802	- £ 985,521	-86,312	-£ 2,535,429	- £ 43,356
Maximum over-estimation	215,273	£ 6,323,659	£ 108,135	2,657	£ 78,060	£ 1,335
Average estimation	-849,435	- £ 24,892,763	- £ 425,666	-25,291	-£ 730,590	- £ 12,493

Figure 5: Relative accuracies of the current and proposed methodologies in predicting Energy Imbalance for Interconnector BM Units since NETA Go-live, over rolling 8 day periods.

The analysis revealed that both the current and the proposed methodologies would have, on average, underestimated Interconnector BM Units' Trading Charges since Go-live, but the analysis indicated that the proposed mechanism offers a significantly more accurate estimation than the current mechanism.

The peak negative CEI for Interconnector BM Units under the current methodology equated to over £57.6m. At that time, the Interconnector community could have had total outstanding Trading Charges of an equivalent or lesser magnitude without the need for having any Credit Cover lodged to cover that amount. The peak negative CEI for the proposed methodology was 23 times smaller with a magnitude of £2.5m.

The average CEI under the current methodology was a negative value equating to £24.9m. Under such conditions, the Interconnector community could have total outstanding Trading Charges of an equivalent or lesser magnitude without the need for having any Credit Cover lodged to cover that amount. The average negative CEI under the proposed methodology was 34 times smaller with a magnitude of approximately £0.7m.

⁴ It should be noted that CEI is generated as $CEI = -(CAQCE - QABC)$, with QABC constituting the Account Bilateral Contract Volume (ie net Volume Notification position). QABC is calculated on a Party Id basis, rather than a BM Unit Id basis. QM_{ij} has therefore been used as a QABC proxy, based upon an assumption that each Party will, on average, seek to adopt a contract position in line with their expected metered volumes.

The peak positive CEI under the current methodology equated to £6.3m. Under the proposed methodology this value was 81 times smaller at under £0.1m. The reduction in the need for provision of Credit Cover against peak periods of positive CEI would therefore have been of the order of £6.2m.

The Modification Group considered that the responses to the second consultation had indicated an average annualised cost of Credit Cover of approximately 1.71%. It was additionally agreed that Parties would seek to lodge Credit Cover against peak periods of positive Energy Indebtedness, in order to avert triggering the Credit Default provisions of the Code. Multiplying the reduction in peak positive CEI by this cost of Credit Cover was therefore considered to result in a reduced cost of Credit Cover to the Interconnector community of approximately £107,000 per annum.

Excluding Interconnector Error Administrator (IEA) BM Units, Modification Group analysis further indicated that the average per Settlement Period discrepancy between FPN_{ij} and QM_{ij} since NETA Go-live was 84.3 MWh. The average per Settlement Period discrepancy between CAQCE (based upon CALF and GC/DC) and QM_{ij} across the same period was 2,857.4 MWh. The use of CALF and GC/DC has therefore been approximately 34 times less accurate than the use of FPN_{ij} would have been over this period. Including IEA BM Units gives a modified average per Settlement Period discrepancy between FPN_{ij} and QM_{ij} since NETA Go-live of 98.5 MWh. The average per Settlement Period discrepancy between CAQCE (based upon CALF and GC/DC) and QM_{ij} across the same period was 2,871.6 MWh. The use of CALF and GC/DC has therefore been approximately 29 times less accurate than the use of FPN_{ij} would have been over this period when IEA BM Units are included. To add further context to the scale of the figures, aggregated Interconnector Capacity per Settlement Period at times of full availability is 1,600 MWh (based upon 2,000 MW and 1,200 MW links between the Total System and France and Scotland respectively). This totals to 614,400 MWh over an eight day period.

1.6 Alternative Modification

Neither the Modification Group, nor any of the respondents to either Consultation Document, identified any Alternative Modifications that would, in their opinion, better address the perceived defect.

1.7 Governance and regulatory framework assessment

Neither the Modification Group, nor any of the respondents to the Consultation Document identified any impact upon the Governance and Regulatory Framework.

2 COSTS⁵

PROGRESSING MODIFICATION PROPOSAL

Demand Led Cost	£ 0
ELEXON Resource	60 Man days £ 9,200

IMPLEMENTATION COSTS

⁵ Clarification of the meanings of the cost terms in this section can be found in annex 7 of this report

		Stand Alone Cost	P140 Incremental Cost	Tolerance
Service Provider⁶ Cost	Change Specific Cost	£ 196,264	£ 196,264	+/- 20% (£39,253)
	Release Cost	£ 299,765	N/A	+/- 20% (£59,953)
	Total Service Provider Cost	£ 496,029	£ 196,264	+/- 20%
Implementation Cost	External Audit	£ 40,000	£ 16,000	+/- 20%
	Design Clarifications	£ 25,000	£ 10,000	+/- 100%
	Additional Resource Costs	£ 0	£ 0	N/A
	Additional Testing and Audit Support Costs	£ 40,000	N/A	+/- 25%
Total Demand Led Implementation Cost		£ 601,029	£ 222,264	+/- 25%

ELEXON Implementation Resource Cost		421 Man days £ 168,400	141 Man days £ 56,400	+/- 5%
Total Implementation Cost		£ 769,429	£ 278,664	+/- 20%

ONGOING SUPPORT AND MAINTENANCE COSTS

	Stand Alone Cost	P140 Incremental Cost	Tolerance
Service Provider Operation Cost	£ 0 per annum	£ 0 per annum	N/A
Service Provider Maintenance Cost	£ 27,477 per annum	£ 27,477 per annum	+/- 20%
ELEXON Operational Cost	£ 0 per annum	£ 0 per annum	N/A

⁶ BSC Agent and non-BSC Agent Service Provider and software Costs

3 RATIONALE FOR PANEL'S RECOMMENDATIONS

The Panel concurred with the findings of the Modification Group, which are summarised below.

It was concluded that Interconnector Users are disproportionately affected by inaccuracies in the CEI calculation. This is due to a greater likelihood that historical performance measures will not accurately predict contemporary behaviour for this BM Unit type.

It was agreed that FPN_{ij} is an accurate proxy for QM_{ij} for Interconnector Users due to its use as the basis for calculating QM_{ij} for this BM Unit type, pursuant to Schedule 5 of the Interconnexion France-Angleterre IFA Access Rules (reference 8) and Appendix VII of the Access & Allocation Code for the Scotland-England Interconnector (reference 9).

It was noted that it was not within the remit of P140 to consider whether FPN_{ij} would provide a better proxy for QM_{ij} for other BM Unit types.

It is considered that P140 may facilitate more effective competition in the market through the realisation of the benefits detailed in Sections 1.4 and 1.5 of this document, namely:

- a reduction in the risk to the market of Interconnector Users accumulating unsecured liabilities for Trading Charges;
- a reduction in barriers to entry for potential Interconnector Users; and
- an increase in the accuracy of the calculation of Energy Indebtedness for Interconnector BM Units.

For the above reasons, the Panel has concluded that P140 would better facilitate Applicable BSC Objective (c) – ‘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’.

In addition, the Panel has considered that a reduction in effort required by BSCCo to handle Interconnector CALF issues, such as seasonal calculation and appeals processes, may better facilitate, to a lesser extent, Applicable BSC Objective (d) – ‘Promoting efficiency in the implementation and administration of the balancing and settlement arrangements’.

One Panel member stated that their support for the Proposed Modification was conditional upon it being incorporated into an existing release with other changes to mitigate the overall costs. ELEXON has confirmed that the suggested Implementation Dates are aligned with scheduled CVA Releases.

One Panel member queried how many Interconnector Users would benefit from the more representative estimation of outstanding Trading Charges that it is contended P140 will provide. As at 17 February 2004, 29 Interconnector Users had Interconnector BM Units on either one or both of the existing Interconnectors. It should be noted that the number of Interconnector Users that may exist at any one time is not limited or prescribed under the Code, and therefore the number of Interconnector Users may be subject to variance from time to time. Implementation of the British Electricity Trading and Transmission Arrangements (BETTA) will result in the disappearance of the Anglo-Scottish Interconnector and the integration of the Moyle Interconnector between Northern Ireland and Great Britain into the Trading Arrangements – both changes that may result in variance in the number of Interconnector BM Units. It was noted that the Modification Group believed that the principal benefit of P140 would accrue to all BSC Parties from an amelioration of the risk that an Interconnector User could expose the market to substantial unsecured liabilities for Trading Charges, rather than from reducing requirements for Credit Cover for Interconnector Users (although this was regarded as a significant benefit in its own right).

One Panel member queried whether the draft legal text appended to the Assessment Report resulted in an obligation for the Transmission Company to develop a new data flow containing FPN data that

would be sent to the ECVAA separately from the existing data flow sent to the BMRA. The Modification Group has modified the legal text in response to this comment. The modified legal text continues to state that FPN data should be provided to the ECVAA to the same timescales as the existing data flow sent to the BMRA. However, it makes clear through modified clause Q1.3.1 that for so long as the same person acts as both BMRA and ECVAA that the Transmission Company shall be treated as having sent such data to both BSC Agents if it has sent the data to one of them. The Transmission Company would not therefore need to develop a new data flow in order to meet its obligations under Q6.1A.1.

4 IMPACT ON BSC SYSTEMS AND PARTIES

An assessment has been undertaken in respect of BSC Systems and Parties and the following have been identified as potentially being impacted by the Proposed Modification.

4.1 BSCCo

The following impacts upon BSCCo systems have been identified.

4.1.1 Removal of process to assign seasonal CALF values

BSCCo would no longer need to calculate CALF values on a seasonal basis for Interconnector BM Units. This would necessitate a number of changes:

- The CALF Guidance document, maintained pursuant to M1.5.1, would need to be amended to reflect the changed treatment of Interconnector BM Units. The changed document would need to be approved by the ISG, which has been given delegated responsibility for this document from the Panel;
- The Trading Operations Market Analysis System (TOMAS) query used by BSCCo Service Delivery to calculate seasonal CALF values should be modified to remove the calculation of Interconnector BM Unit CALF values. It should be noted that this is desirable rather than mandatory – the query could be left unchanged with data that had become irrelevant ignored, although this may adversely impact upon TOMAS performance; and
- The CALF Local Work Instruction (LWI) would be modified to reflect changed CALF procedures.

It should be noted that as CALF will no longer be applicable to Interconnector BM Units there may be a reduction in effort required by BSCCo to handle CALF appeals.

4.1.2 Modelling and explanation of Credit Cover Percentage

The reconciliation of the CCP for a Party whose portfolio contains Interconnector BM Units will become more complex due to a greater number of components within the calculation, and a greater level of dynamism in the level of CAQCE.

This may increase the amount of effort required by BSCCo for analysing and explaining the CCP calculation to Parties.

New TOMAS queries may need to be created in order that the new CEI calculation may be accurately reconciled by Service Delivery.

4.1.3 Implementation effort

Internal Impact Assessments within the BSCCo have suggested a total of 421 man days of effort would be required to implement P140.

This is broken down as follows:

- 386 man days for CVA Programme activity to implement as a stand-alone release. 280 of these relate to fixed release costs, including project management overhead. The remaining 106 man days are for incremental CVA Programme effort required to implement changes to the following as part of a planned CVA Programme Release: the ECVAA User Requirement Specification; ECVAA Service Description; ECVAA System Specification; ECVAA Manual System Specification; ECVAA Operational Services Manual; Interface Definition Document (IDD) Part 1, IDD Part 2, NETA Data File Catalogue; Reporting Catalogue; BSCP01 'Overview of Trading Arrangements'; CALF Guidance document; and the Business Process Model;
- 20 man days for Assurance activity, for providing required support services to the CVA Programme; and
- 15 man days for Service Delivery activity, for amending the CALF Guidelines, updating operational processes, and amending internal models for replicating the calculation of CCP.

4.2 BSC Systems

System / Process	Potential Impact of Proposed/Alternative Modification
Credit Checking Systems	<p>ECVAA calculation of Credit Cover Percentage:</p> <p>The half hourly calculation of CCP by the ECVAA would need to be modified such that the CAQCE generated for each Interconnector BM Unit is made equal to the FPN received for that BM Unit from the Transmission Company, pursuant to new clause Q6.1A.1.</p> <p>Where FPN data is not received from the Transmission Company within required timescales, the ECVAA calculation would default the FPN used to that used for the preceding Settlement Period. This defaulted data would be replaced by actual data in the next ECVAA calculation after receipt of such data.</p> <p>These changes would need to be adopted without significant delay to the timing of when the calculation completes.</p> <p>CRA Processing of CALF values:</p> <p>CRA Operational procedures would need to be modified to reflect that CALF values would no longer be generated for Interconnector BM Units.</p>
Reporting	<p>Modified ECVAA-I014 'Notification Report'</p> <p>The ECVAA-I014 flow, sent daily to Parties, currently includes three separate Credited Energy Volume values:</p> <ul style="list-style-type: none"> • Party value: Credit Assessment Credited Energy Volume (MWh) (CAQCE_{pj}) • Account-level value: Account Period Credit Assessment Credited Energy Volume (MWh) (CAQCE_{aj}) • Cumulative Account-level value: Account Cumulative Credit Assessment Credited Energy Volume (MWh) (CCAQCE_{aj}) <p>This flow would be amended to also include two subtotals for each of these three data items. The first subtotal would show only that relating to Interconnector BM Units, the latter would show only that relating to non-Interconnector BM Units. For the avoidance of doubt, these two</p>

System / Process	Potential Impact of Proposed/Alternative Modification
	subtotals would equal the respective Party, Account-level or Cumulative Account-level value respectively when added together.

4.3 Parties and Party Agents

Four responses were received from Parties in response to the Requirements Specification, one of which was 'No impact'.

The other three identified the following impacts:

- a requirement to modify Credit Cover checking and estimation systems;
- implementation timescales of between six weeks (1 respondent) and three months (2 respondents); and
- implementation costs ranging between £8,000 and £20,000 (averaging approximately £10,000).

5 IMPACT ON CODE AND DOCUMENTATION

5.1 Balancing and Settlement Code

Section M will be modified to reflect that CAQCE calculated by the ECVAA for Interconnector BM Units will be based upon Period FPN data rather than upon CALF and GC/DC and to provide a defaulting rule should such data not be received.

Section Q will be modified to reflect that FPN data will be used by the ECVAA in the calculation of Energy Indebtedness.

The legal text is contained within an attached document.

5.2 Code Subsidiary Documents

The following Code Subsidiary documents will need to be modified to reflect the changed BSC Systems and Processes detailed above:

- ECVAA Service Description;
- NETA Data File Catalogue;
- Reporting Catalogue; and
- BSCP01 'Overview of Trading Arrangements'.

5.3 Configurable items

The following configurable items will need to be modified to reflect the changed BSC Systems and Processes detailed above:

- ECVAA User Requirements Specification;
- ECVAA Manual System Specification;
- ECVAA System Specification;
- ECVAA Operational Services Manual;
- Interface Definition Document Part 1;

- Interface Definition Document Part 2; and
- Business Process Model.

5.4 BSCCo Memorandum and Articles of Association

No changes to the BSCCo Memorandum and Articles of Association have been identified as arising as a consequence of the Proposed Modification.

5.5 Impact on Core Industry Documents and supporting arrangements

No changes to Core Industry Documents and supporting arrangements have been identified as arising as a consequence of the Proposed Modification.

6 SUMMARY OF CONSULTATIONS

9 respondents (42 Parties) submitted representations regarding the consultation on Modification Proposal P140.

Consultation question	Respondent agrees	Respondent disagrees	Opinion unexpressed
Do you agree with the Panel's views on P140 and the provisional recommendation to the Authority contained in the draft Modification Report that P140 should be made?	7 (38)	1 (3)	1 (1)
Do you agree that the legal text provided in the draft Modification Report correctly addresses the defect or issue identified in the Modification Proposal?	6 (37)	-	3 (5)
Do you agree with the Panel's provisional recommendation concerning the Implementation Date for P140?	7 (38)	-	2 (4)
Are there any further comments on P140 that you wish to make?	1 (3)	-	8 (39)

6.1 Panel's recommendation

7 respondents (38 Parties) supported the recommendation of the Panel that the Proposed Modification should be made, with 1 respondent (3 Parties) rejecting this recommendation and 1 respondent (1 Party) expressing no opinion. The respondent who disagreed with the Panel recommendation contended that the capacity of the current methodology to under or overestimate Energy Indebtedness meant that P140 may not always result in a reduction in market exposure to unsecured liabilities for Trading Charges or a reduction in barriers to entry through reduced Credit Cover. They additionally asserted that the cost of P140 may outweigh its benefits.

6.2 Legal text

6 respondents (37 Parties) agreed that the legal text provided in the draft Modification Report correctly addresses the defect or issue identified in the Modification Proposal. 3 respondents (5 Parties) did not specifically agree or disagree, with two (2 Parties) of these offering no opinion. The remaining respondent (3 Parties) questioned whether the ECVAA was being required to calculate Period FPN as part of the P140 solution, and if so whether this was resulting in an inefficient duplication of calculations performed by the SAA. ELEXON can confirm that the SAA calculation of Period FPN is retrospective (as it is aligned with Settlement Runs) whilst the ECVAA calculation of Period FPN for

P140 would need to be prospective (to align with the ECVAA calculation of Energy Indebtedness at Gate Closure). The P140 legal drafting reflects this new requirement and does not result in the re-calculation of data already available.

6.3 Recommended Implementation Date

All respondents who expressed an opinion agreed with the Panel's recommendation concerning the Implementation Date for P140. Two respondents (4 Parties) additionally commented that any Implementation Date should be aligned with scheduled releases in order to mitigate overall costs.

6.4 Further comments

1 respondent (3 Parties) further commented that fundamental problems with the calculation of Energy Indebtedness arise from an inability to obtain accurate metered volumes quickly. The respondent suggests that P140 is an expensive tweak to the current arrangements where fundamental change may be more appropriate.

The responses to the consultation contained no new arguments for or against P140.

6.5 Comments and views of the Panel

The Panel agreed that were the Authority to approve P140 it should be included in a release with other Approved Modifications in order to reduce the overall cost of implementation.

7 SUMMARY OF TRANSMISSION COMPANY ANALYSIS

7.1 Analysis

No impact has been identified resulting from this Modification Proposal that would affect the ability of the Transmission Company to discharge its obligations under the Transmission Licence.

The Transmission Company agrees that P140 meets Applicable BSC Objective c) as it removes an unfair financial burden upon Interconnector Users in meeting Credit Cover obligations.

The Transmission Company initially identified a development cost of £46,000 were it obligated to develop and submit a new data file required in order to provide FPN data for Interconnector BM Units to the ECVAA five minutes prior to Gate Closure. In addition there would be small additional operating costs for the Transmission Company to provide the new FPN data file to the ECVAA on an ongoing basis. It was suggested that a more efficient approach to the submission of this data would be to reuse a data file containing FPN data for all BM Units that is submitted to the BMRA within 15 minutes after Gate Closure pursuant to Code Clause Q.6.1.11. The Modification Group agreed to pursue this latter approach following confirmation from the Transmission Company that it would incur no development costs. The rationale for the Modification Group's decision is set out in Section 7.2 of the Assessment Report (reference 11), with the Transmission Company's analysis contained within Annex 5 of the same document.

The Transmission Company did not identify any consequential changes to Core Industry documents as arising from P140.

7.2 Comments and views of the Panel

The Panel had no comments on the Transmission Company analysis.

8 DOCUMENT CONTROL

8.1 Authorities

Version	Date	Author	Reviewer	Change Reference
0.1	16/02/04	Richard Hall	Change Delivery	Change Delivery Review
0.2	18/02/04	Richard Hall	Change Delivery	For consultation
0.3	01/03/04	Richard Hall	Change Delivery	For Panel Decision
1.0	15/03/04	Richard Hall	n/a	For Authority Decision

8.2 References

Ref	Document	Owner	Issue date	Version
1	Modification Proposal P140 (http://www.elexon.co.uk/docs/ta/modifications/modprops/P140/p140.pdf)	ELEXON	21/08/03	1.0
2	P140 Initial Written Assessment (IWA P140) (http://www.elexon.co.uk/docs/ta/modifications/modprops/P140/P140_IWA.pdf)	ELEXON	05/09/03	1.0
3	Requirements Specification for Modification Proposal P140 'Revised Credit Cover methodology for Interconnector BM Units'	SSMG	29/09/03	1.0
4	Credit Assessment Load Factor Guidance (CG010) (http://www.elexon.co.uk/DOCS/ta/market_data/CALF_Guidance.pdf)	BSC Panel / ISG	24/04/03	5.0
5	BSCP15 'BM Unit Registration' (http://www.elexon.co.uk/docs/ta/bscrel_docs/bscps/v6/BSCP15.pdf)	ELEXON	29/09/03	6.0
6	ISG/24/267 'Suggested amendments to Credit Assessment Load Factor (CALF) treatment of Interconnector BM Units' (http://www.elexon.co.uk/docs/ta/panel/ISG/papers/024_0267.pdf)	ELEXON	28/01/03	1.0
7	ISG/27/309 'Modelling of alternative Interconnector methodologies' (http://www.elexon.co.uk/docs/ta/panel/ISG/papers/027_0309.pdf)	ELEXON	22/04/03	1.0
8	Interconnexion France-Angleterre IFA Access Rules (http://www.nationalgrid.com/uk/activities/other/Definitive_Issue_4.1.pdf)	NGC / RTE	31/07/02	4.0
9	Access & Allocation Code for the Scotland-England Interconnector (http://www.scottish-southern.co.uk/sseggroup/KeyDocumentsPDFs/SSEA_ACode0203.pdf , http://www.scottishpower.com/applications/publish/downloadPublicDocument.jsp?guid=2354e4_efd28_8c268_-7f860a026463&folderPath=/root/ScottishPower%20Media%20Library/Documents%20and%20Reports/&downloadParameter=Attachment)	Scottish Hydro-Electric Transmission Ltd / SP Transmission Limited		
10	Modification Proposal P140 Consultation Document (P140AC10) (http://www.elexon.co.uk/docs/ta/modifications/modprops/P140/P140AC10.pdf)	SSMG	03/11/03	1.0

11	Assessment Report for Modification Proposal P140 (P140AR20) (http://www.elexon.co.uk/docs/ta/panel/papers/72_007a.pdf)	SSMG	12/02/04	2.0
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ANNEX 1 LEGAL TEXT

- Text for Proposed Modification is in an attached document.

ANNEX 2 MODIFICATION GROUP DETAILS

NAME	POSITION	MEMBER
Roger Salomone	Chairman	Y
Richard Hall	Lead Analyst	Y
Neil Cohen	Technical Support	Y
Steve Drummond	EdF Trading Ltd	Y
Mark Manley	British Gas Trading	Y
Paul Jones	Powergen	Y
Mark Pearce	National Grid Company	Y
Sharif Islam	Total Gas & Power Ltd	Y
Rob Barnett	Campbell Carr	Y
Joanne Ellis	Cornwall Consulting Ltd	Y
Jerome Williams	Ofgem	N
Steve Mackay	Ofgem	N
Sanjukta Round	Cornwall Consulting Ltd	N
Neil Smith	Powergen	N
Clare Talbot	National Grid Company	N

ANNEX 3 CONSULTATION RESPONSES

Submissions received in relation to the consultation upon the draft Modification Report for P140 are contained within a separate attachment to this document.

ANNEX 4 CLARIFICATION OF COSTS

There are several different types of costs relating to the implementation of Modification Proposals. ELEXON implements the majority of Approved Modifications under its CVA or SVA Release Programmes. These Programmes incur a base overhead which is broadly stable whatever the content of the Release. On top of this each Approved Modification incurs an incremental implementation cost. In order to give Stakeholders a feel for the estimated cost of implementing an Approved Modification the templates shown in Attachment 1 have three columns:

- Stand Alone Cost** – the cost of delivering the Modification as a stand alone project outside of a CVA or SVA Release, or the cost of a CVA or SVA Release with no other changes included in the Release scope. This is the estimated maximum cost that could be attributed to any one Modification implementation.

- **Incremental Cost** - the cost of adding that Modification Proposal to the scope of an existing release. This cost would also represent the potential saving if the Modification Proposal was to be removed from the scope of a release before development had started.
- **Tolerance** – the predicted limits of how certain the cost estimates included in the template are. The tolerance will be dependent on the complexity and certainty of the solution and the time allowed for the provision of an impact assessment by the Service Provider(s).

The cost breakdowns are shown below:

PROGRESSING MODIFICATION PROPOSAL	
Demand Led Cost	This is the third party cost of progressing a Modification Proposal through the Modification Procedures in accordance with Section F of the Code. Service Provider Impact Assessments are covered by a contractual charge and so the Demand Led cost will typically be zero unless external Legal assistance or external consultancy is required.
ELEXON Resource	This is the ELEXON Resource requirement to progress the Modification Proposal through the Modification Procedures. This is estimated using a standard formula based on the length of the Modification Procedure.

SERVICE PROVIDER ⁷ COSTS	
Change Specific Cost	Cost of the Service Provider(s) Systems development and other activities relating specifically to the Modification Proposal.
Release Cost	Fixed cost associated with the development of the Service Provider(s) Systems as part of a release. This cost encompasses all the activities that would be undertaken regardless of the number or complexity of changes in the scope of a release. These activities include Project Management, the production of testing and deployment specifications and reports and various other standard release activities.
Incremental Release Cost	Additional costs on top of base Release Costs for delivering the specific Modification Proposal. For instance, the production of a Test Strategy and Test Report requires a certain amount of effort regardless of the number of changes to be tested, but the addition of a specific Modification Proposal may increase the scope of the Test Strategy and Test Report and hence incur additional costs.

IMPLEMENTATION COSTS	
External Audit	Allowance for the cost of external audit of the delivery of the release. For CVA BSC Systems Releases this is typically estimated as 8% of the total Service Provider Costs, with a tolerance of +/- 20%. At present the SVA Programme does not use an external auditor, so there is no External Audit

⁷ A Service Provider can be a BSC Agent or a non-BSC Agent, which provides a service or software as part of the BSC and BSC Agent Systems. The Service Provider cost will be the sum of the costs for all Service Providers who are impacted by the release.

	cost associated with an SVA BSC Systems Release.
Design Clarifications	Allowance to cover the potential cost of making any amendments to the proposed solution to clarify any ambiguities identified during implementation. This is typically estimated as 5% of the total Service Provider Costs, with a tolerance of +/- 100%.
Additional Resource Costs	<p>Any short-term resource requirements in addition to the ELEXON resource available. For CVA BSC Systems Releases, this is typically only necessary if the proposed solution for a Modification Proposal would require more extensive testing than normal, procurements or 'in-house' development.</p> <p>For SVA BSC Systems Releases, this will include the management and operation of the Acceptance Testing and the associated testing environment.</p> <p>This cost relates solely to the short-term employment of contract staff to assist in the implementation of the release.</p>
Additional Testing and Audit Support Costs	Allowance for external assistance from the Service Provider(s) with testing, test environment and audit activities. Includes such activities as the creation of test environments and the operation of the Participant Test Service (PTS). For CVA BSC Systems Releases, this is typically estimated as £40k per release with a tolerance of +/- 25%. For SVA BSC Systems Releases this is estimated on a Modification Proposal basis.

TOTAL DEMAND LED IMPLEMENTATION COSTS

This is calculated as the sum of the total Service Provider(s) Cost and the total Implementation Cost. The tolerance associated with the Total Demand Led Implementation Cost is calculated as the weighted average of the individual Service Provider(s) Costs and Implementation Costs tolerances. This tolerance will be rounded to the nearest 5%.

ELEXON IMPLEMENTATION RESOURCE COSTS

Cost quoted in man days multiplied by project average daily rate, which represents the resources utilised by ELEXON in supporting the implementation of the release. This cost is typically funded from the "ELEXON Operational" budget using existing staff, but there may be instances where the total resources required to deliver a release exceeds the level of available ELEXON resources, in which case additional Demand Led Resources will be required.

The ELEXON Implementation Resource Cost will typically have a tolerance of +/- 5% associated with it.

ONGOING SUPPORT AND MAINTENANCE COSTS

ELEXON Operational Cost	Cost, in man days per annum multiplied by project average daily rate, of operating the revised systems and processes post implementation.
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Service Provider Operation Cost	Cost in £ per annum payable to the Service Provider(s) to cover staffing requirements, software or hardware licensing fees, communications charges or any hardware storage fees associated with the ongoing operation of the revised systems and processes.
Service Provider Maintenance Cost	Cost quoted in £ per annum payable to the Service Provider(s) to cover the maintenance of the amended BSC Systems.