

## ASSESSMENT REPORT for Modification Proposal P140 Revised Credit Cover Methodology for Interconnector BM Units

**Prepared by: Settlement Standing Modification Group (SSMG)**

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### RECOMMENDATIONS

The SSMG invites the Panel to;

- **AGREE that the Proposed Modification P140 should be made;**
- **AGREE a provisional Implementation Date for the Proposed Modification P140 of 23 February 2005, should the Authority determination be received on or by 29 June 2004; or 29 June 2005, should the Authority determination be received after 29 June 2004 but on or by 3 November 2004;**
- **AGREE that Modification Proposal P140 be submitted to the Report Phase;**
- **NOTE the development and implementation costs for Proposed Modification P140 of £769,429 including ELEXON effort of 421 man days, with an additional 20% tolerance associated with these estimates; and**
- **AGREE that the draft Modification Report be issued for consultation and submitted to the Panel Meeting of 11 March 2004.**

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## SUMMARY OF IMPACTED PARTIES AND DOCUMENTS

As far as BSCCo has been able to assess 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"/>	
<b>Party Agents</b>			
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"/>	<b>Core Industry Documents</b>	
ECVNA <input type="checkbox"/>	K <input type="checkbox"/>	Grid Code <input type="checkbox"/>	
MVRNA <input type="checkbox"/>	L <input type="checkbox"/>	Supplemental Agreements <input type="checkbox"/>	
<b>BSC Agents</b>			
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"/>	<b>BSCCo</b>	
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"/>	<b>Other Documents</b>	
MIDP <input type="checkbox"/>		Transmission Licence <input type="checkbox"/>	
TLFA <input type="checkbox"/>			
<b>Other Agents</b>			
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.

The Initial Written Assessment (reference 2) was submitted to the BSC Panel ('the Panel') at its meeting on 11 September 2003. The Panel agreed to submit P140 to a three month Assessment Procedure to be carried out by the Settlement Standing Modification Group (SSMG) with the

Assessment Report to be presented at the Panel meeting on 11 December 2003. At that meeting, the Panel requested the Assessment Procedure be extended by a further two months in order that a further consultation might be carried out in support of the cost/benefit analysis, with the Assessment Report to be presented to the Panel meeting on 12 February 2004.

## 1.2 Issues raised by the Proposed Modification

The following issues were considered during the Assessment of P140:

- Principles of the Credit Cover calculation;
- The Terms of Reference (see Annex 7); and
- Previous Imbalance Settlement Group (ISG) and SSMG consideration of this issue.

## 1.3 Assessment of how the Proposed Modification will better facilitate the Applicable BSC Objectives

### 1.3.1 Principles of Credit Cover and the Energy Indebtedness Calculation

Under the BSC trading arrangements, payments to and from Parties in respect of Trading Charges arising on any particular Settlement Day are made, on average, twenty nine calendar days later. Thus, at any given time, Parties may have debts (or be due payments) in respect of Trading Charges incurred, on average, over the previous twenty nine days. The purpose of Credit Cover is to ensure that, should a Party default on payments, sufficient collateral is available to pay these debts.

After Gate Closure for each Settlement Period the Energy Contract Volume Aggregation Agent (ECVAA) calculates the Credit Cover Percentage (CCP) for each Party. CCP reflects their Energy Indebtedness, which is an approximation of their expected Trading Charges for the last 29 days, divided by the amount of Credit Cover they have lodged. Should this CCP exceed defined thresholds then the Credit Default provisions specified in Section M3 of the Balancing and Settlement Code ('the Code') will be triggered, in order to prevent the market from being exposed to unsecured liabilities.

The calculation of Energy Indebtedness is itself a composite of two sub-calculations – Actual Energy Indebtedness (AEI) and Credit Assessment Energy Indebtedness (CEI), with the latter used for that portion of the 29 day period for which Interim Information Settlement Run data is not available. These calculations are prescribed in Section M, 'Credit Cover and Credit Default', of the Code. No attempt is made here to further explain the use of AEI as no changes are suggested to this calculation under P140. An overview of the current rules for calculating CEI is given below so that the basis of the current baseline may be understood.

### 1.3.2 Current rules for calculating Credit Assessment Energy Indebtedness (CEI)

Credit Assessment Energy Indebtedness is calculated as:

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

Where  $QABC_{aj}$  is the Account Bilateral Contract Volume in MWh.

With Credit Assessment Credited Energy Volume (CAQCE) for the Lead Energy Account for a Production BM Unit defined as:

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

With CAQCE for the Lead Energy Account for a Consumption BM Unit defined as:

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

With BM Unit Credit Assessment Export Capability (BMCAEC) defined as:

$$\text{BMCAEC}_i = \text{CALF}_i * \text{GC}_i$$

With BM Unit Credit Assessment Import Capability (BMCAIC) defined as:

$$\text{BMCAIC}_i = \text{CALF}_i * \text{DC}_i$$

With Generation Capacity (GC) defined as:

$$\text{GC} = \text{G} / \text{SPD}$$

Where G is the value of positive  $\text{QM}_{ij}$  notified under Section K3.4.1(a) of the Code in relation to the relevant BSC Season and SPD is the Settlement Period Duration (in hours).

With Demand Capacity (DC) defined as:

$$\text{DC} = \text{D} / \text{SPD}$$

Where D is the value of negative  $\text{QM}_{ij}$  notified under Section K3.4.1(a) of the Code in relation to the relevant BSC Season and SPD is the Settlement Period Duration (in hours).

### **1.3.3 Sub-component of CEI (1): Credit Assessment Load Factor (CALF)**

CALF values are calculated on a seasonal basis by BSCCo according to the prevailing principles or guidance established by the Panel under Code Clause M1.5.1. The Panel has delegated responsibility for maintaining and updating these principles to the Imbalance Settlement Group (ISG).

Currently, BSCCo calculates CALF values on a seasonal basis in accordance with the CALF Guidance document (reference 4). For each BM Unit type, the principle applied seeks to generate a CALF value equivalent to the average historical performance of the BM Unit, or of other BM Units of its type where no historical data is available.

The Lead Party of a BM Unit may raise an appeal against an assigned CALF value within two months of a change to the principles or guidance being determined by the Panel or ISG, or of being notified of a new CALF value. The Panel, or ISG, hear any appeals that are raised.

For further information on CALF, please see Section M1.5 of the Code and the CALF Guidance document ([http://www.elexon.co.uk/DOCS/ta/market\\_data/CALF\\_Guidance.pdf](http://www.elexon.co.uk/DOCS/ta/market_data/CALF_Guidance.pdf)).

### **1.3.4 Sub-component of CEI (2): Generation and Demand Capacity (GC/DC)**

Currently, the Lead Party of each BM Unit sets its own GC/DC values by nominating the maximum magnitude positive and negative BM Unit Metered Volumes ( $\text{QM}_{ij}$ ) that they anticipate the BM Unit will reach during each BSC Season. These half hourly MWh values are then divided by the Settlement Period Duration to give hourly MW Generation and Demand Capacity values. The timescales for  $\text{QM}_{ij}$  submissions are governed by BSCP15 which currently states that a Party should make these at least 10 Working Days prior to the start of a BSC Season.

BSC Parties are obliged to resubmit higher magnitude  $\text{QM}_{ij}$  values mid-season if they become aware that their maximum Metered Volumes will exceed those declared by more than the smaller of 0.5 MW or 1% of GC/DC. The Panel may also request that the Party re-estimate the values they have submitted.

For further information on GC/DC, please see Section K3.4 of the Code and BSCP15 'BM Unit Registration' (reference 5).

### 1.3.5 Worked example of the CEI calculation

As outlined above, the current CAQCE calculation seeks to predict the physical performance of the BM Unit based upon its average historical performance. The CEI calculation then takes the difference between this prediction and the Account Bilateral Contract Volume (QABC) in a Settlement Period as a proxy for expected imbalance volumes.

If a BM Unit experiences high volatility in its Metered Volumes, there may be considerable difference between its actual metered volumes for any given Settlement Period and its average predicted metered volumes. The disparity between the two will be treated as an indicative imbalance volume by which the Party is either short or long.

The reason why this can cause problems may be best understood in the context of a worked example where an Interconnector User experiences a reversal in the direction of their energy flows between BSC Seasons.

Party X is an Interconnector User with two Interconnector BM Units. Figure 1 shows their declared GC/DC values:

BM Unit ID	BM Unit Type	Generation Capacity	Demand Capacity
I_PRODUCTION	Production Interconnector BM Unit	500 MW	0 MW
I_CONSUMPTION	Consumption Interconnector BM Unit	0 MW	- 500 MW

**Figure 1: Declared GC/DC values for the BM Units used in the worked example**

#### 1.3.5.1 Calculation of CALF

Let us assume that during the Summer 2003 BSC Season, the Interconnector User mostly exported energy volumes from the Interconnected System to England and Wales. Over the course of the season, the average hourly metered volume for I\_PRODUCTION was 250 MWh, and the average hourly metered volume for I\_CONSUMPTION was - 50 MWh.

The CALF values applied to the equivalent BSC Season of the subsequent BSC Year (Summer 2004 in this case) will be calculated from dividing this average hourly metered volume of the BM Unit by its GC or DC (dependent on P/C Status). Results of this calculation are shown in Figure 2:

BM Unit ID	Average hourly metered volume (MWh) (numerator) (a)	GC or DC, dependent on P/C Status (MW) (denominator) (b)	CALF ((a) / (b))
I_PRODUCTION	250	500	0.5000
I_CONSUMPTION	- 50	- 500	0.1000

**Figure 2: Calculation of CALF values based upon historical performance data**

#### 1.3.5.2 Calculation of BMCAEC/BMCAIC

Clause M1.6 of the Code states that the BM Unit Credit Assessment Export Capability (BMCAEC) for a Production BM Unit will be its CALF multiplied by the GC. The BM Unit Credit Assessment Import Capability (BMCAIC) for a Consumption BM Unit will be its CALF multiplied by the DC.

Therefore the BMCAEC and BMCAIC calculated for the pair of Interconnector BM Units during the Summer 2004 BSC Season will be as shown in Figure 3:

BM Unit ID	CALF (a)	GC or DC, dependent on P/C Status (b)	BMCAEC / BMCAIC (MW) ((a) * (b))
I_PRODUCTION	0.5000	500	250 (BMCAEC)
I_CONSUMPTION	0.1000	- 500	- 50 (CMCAIC)

**Figure 3: Calculation of BMCAEC/BMCAIC based upon CALF and GC/DC**

### 1.3.5.3 Calculation of CAQCE

The calculation of CAQCE is defined in M1.2 of the Code but may be briefly summarized as the aggregation of all BMCAECs and BMCAICs attributable to a Lead Party, net of any volumes covered by Metered Volume Reallocation Notifications (MVRNs), multiplied by the Settlement Period Duration (0.5).

Assuming no MVRNs are in place and the Lead Party is not Lead Party for any other BM Units, the example would yield a CAQCE per Settlement Period of 100 MWh, based upon  $(250 * 0.5) + (- 50 * 0.5)$ .

### 1.3.5.4 Calculation of CEI

The Credit Assessment Energy Indebtedness for a Trading Party is calculated as:

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

where QABC is the Account Bilateral Contract Volume in MWh.

The sign convention of the CEI calculation is therefore such that in Settlement Periods when the Trading Party has an Account Bilateral Contract Volume that is either more positive, or less negative, than their CAQCE then positive CEI equivalent to the difference will be calculated. Conversely, when the Account Bilateral Contract Volume is either less positive, or more negative, than their CAQCE then negative CEI equivalent to the difference will be calculated. It should be noted that positive CEI implies that the Party will owe money for Trading Charges (as though they were short) whilst negative CEI implies that the Party will be owed money for Trading Charges (as though they were long).

Let us assume that during the Summer 2004 BSC Season, the direction of the Interconnector User's trades reverses and that they mostly import energy volumes to the Interconnected System from England and Wales. Over the course of the season, the average hourly metered volume for I\_PRODUCTION is 50 MW, and the average hourly metered volume for I\_CONSUMPTION was - 250 MW (i.e. an average hourly net flow of -200 MW, equivalent to -100 MWh per Settlement Period).

This means that in an average Settlement Period the CEI calculated for the Trading Party will be:

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

$$\text{Therefore CEI} = -(100 - - 100)$$

$$\text{Therefore CEI} = - 200 \text{ MWh}$$

CEI is used, on average, for approximately eight of the 29 days over which Energy Indebtedness is calculated. If we assume that the above net flow is sustained by the Trading Party over this period, this will result in the under-estimation of their Trading Charges over these days by -£1,624,320, as shown in Figure 4 below.

CEI per SP (a)	SPs per day (b)	Average Settlement Days of CEI in EI calculation (c)	Credit Assessment Price (d)	CEI Estimation of Party's Trading Charges over eight days ((a) * (b) * (c) * (d))
- 200 MWh	48	8	£21.15 (£18 plus VAT)	<b>- £1,624,320</b>

**Figure 4: Calculation of indicative CEI based upon scenario assumptions**

It is important to remember that volumes of CEI generated are aggregated with volumes of AEI when calculating the overall EI of the Party. In the example above, with aggregated CEI at circa -£1.6m, the Party could incur up to £1.6 million of actual trading charges before incurring any positive overall EI. In such a circumstance they could legitimately trade with zero Credit Cover under current trading arrangements.

For the avoidance of doubt, were the figures used in the scenario reversed, with the Interconnector User's behaviour such that it imported rather than exported in the former season and exported rather than imported in the latter, the estimation of the Party's Trading Charges would result in an identical magnitude figure that is positive rather than negative, requiring the Party to lodge excessive Credit Cover.

It should be further noted that this problem is not restricted to volatility in BM Unit behaviour between seasons but can also impact within seasons if the average metered volume is unrepresentative of any given spot point.

For example, let us assume that the seasonal net flows of the Interconnector User is unchanged between the Summer 2003 and the Summer 2004 BSC Season, with a net flow of 100 MWh per Settlement Period exported to England and Wales. This net flow of 100 MWh in the BSC Season is comprised from 50% of Settlement Periods where the net flow is 200 MWh, and 50% of Settlement Periods where the net flow is 0 MWh.

In each Settlement Period where the net flow is 200 MWh, a positive CEI of 100 MWh will be generated, as though the Party were 100 MWh short. Conversely, in each Settlement Period where the net flow is 0 MWh, a negative CEI of -100 MWh will be generated, as though the Party were 100 MWh long.

In this scenario, over the entire BSC Season the net estimation of the Party's imbalance will be balanced, but in every Settlement Period within the BSC Season it will be significantly unrepresentative. If there are a number of consecutive Settlement Periods where the estimation is incorrect in the same direction then significant volumes of positive or negative CEI will be generated that could result in an unrepresentative estimation of the magnitude of the Party's Trading Charges.

It should be noted that it is not contended that the CEI calculation is wholly unproblematic for other kinds of BM Units, but that the magnitude of the problem for Interconnectors is significantly worse due to historical BM Unit behaviour being far less indicative of short term current behaviour. This has complicated previous efforts of both the ISG and the SSMG to consider whether CALF can be made to accurately predict BM Unit Metered Volumes for this BM Unit type.

### 1.3.6 Previous ISG and SSMG discussion on this issue

The principles and guidance applied in the calculation of Interconnector CALF values has been extensively discussed by both the ISG and the SSMG during 2003.

These discussions arose from perceived flaws in the ability of the CEI calculation to generate a representative estimation of the likely physical performance of Interconnector BM Units (as CAQCE) for

the reasons previously detailed. It was identified that this could lead to the calculation of significant magnitudes of negative or positive CEI for Interconnector Users who otherwise only incurred much smaller magnitudes of negative or positive AEI.

A number of alternative CALF methodologies based upon either the historical performance of Interconnector BM Units or the application of class CALFs based upon Interconnector availability were considered by the ISG at its January 2003 meeting (paper ISG/24/267, reference 6), with a decision on whether to implement any of the options deferred until further modeling of the effects of such changes could be conducted.

Separately, Issue 3 'Credit Cover for Interconnectors' was raised with the SSMG by EdF Trading Ltd and discussed at its March 2003 meeting. Issue 3 raised concerns over the calculation of Energy Indebtedness for Interconnector Users and invited discussion regarding whether a better calculation could be formulated. The SSMG reverted this issue back to the ISG to determine whether there is a possible solution through the alteration of the CALF Methodology Guidelines with a proviso that were a Code Modification deemed to be necessary that the issue should return to the SSMG for further discussion.

At both its April and May 2003 meetings, the ISG considered the results of modeling of alternative CALF methodologies (paper ISG/27/309, reference 7). The ISG agreed there was not an obvious change to the current Interconnector CALF methodology that would offer significant benefits. In particular, it was noted that there would be difficulties in achieving equitable treatment of all Parties with some of the methodology options. As a consequence, the ISG agreed that the issue might be better pursued as a Modification to the Code and agreed to refer it back to the SSMG.

The SSMG met to discuss this issue again during July 2003 to discuss what form a Modification to change the CEI calculation could take. The SSMG agreed that Interconnector Users are different to other Parties because their  $FPN_{ij}$  is considered to be their deemed BM Unit Metered Volume. It was therefore agreed that there might be merit in a Modification Proposal whereby the  $FPN_{ij}$ , for Interconnectors only, is used as the Credit Assessment Credited Energy Volume (CAQCE). The SSMG did not believe this should be extended to other BM Unit types as the linkage between  $FPN_{ij}$  and  $QM_{ij}$  was not automatic for other BM Unit types.

P140 was raised in accordance with the possible solution established by the SSMG.

## 1.4 Modification Group's cost benefit analysis of Proposed Modification

In assessing the Proposed Modification the SSMG believed that the Proposed Modification would result in the following BSC Agent costs being incurred<sup>1</sup>:

For BSC Agent changes: £196,264 in change specific costs, and £299,765 in release costs<sup>2</sup>.

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;

<sup>1</sup> These are detailed in greater depth in Section 2 of this document.

<sup>2</sup> 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.

- CRA LWI;
- Planned and unplanned Outage Procedures;
- Disaster Recovery Procedures; and
- software testing.

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

The SSMG 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.

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 calculated<sup>3</sup>. 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.**

<sup>3</sup> 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 analysis revealed that both the current and the proposed methodology would have, on average, under-estimated 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 this 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.

The peak positive CEI under the current methodology equated to £6.3m. Under the proposed methodology this value was of 81 times lesser magnitude 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 SSMG considered that the responses to the second consultation had indicated an average annualised cost of Credit Cover of approximately 1.71% (see Section 6 of this document). 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.

The 8 day trend of aggregated under and over-estimation of Interconnector BM Units physical positions, used as the basis for Figure 5 and taken as the deviation between the two methodologies and the BM Unit Metered Volumes ( $QM_{ij}$ ), is shown in Figure 7, Annex 10. These estimated physical imbalances, multiplied by the relevant effective CAP, are shown as £ amounts in Figure 8, Annex 10.

Excluding IEA BM Units, SSMG 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 use of  $FPN_{ij}$  would have been over this period<sup>4</sup>. 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 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.

The SSMG considered that the benefits identified by its analysis clearly outweighed the costs.

Of greatest importance was that it 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

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<sup>4</sup> Relative accuracy of the current and proposed methodologies in predicting  $QM_{ij}$  for Interconnector BM Units since NETA go-live are shown in Figure 6, Annex 10.

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. 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 that are unrelated to actual Trading Charges. This may be resulting 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 others for the same level of indebtedness.

P140 would also provide for better accuracy in the calculation of EI for Interconnector BM Units. The current calculation can result in significant peaks and troughs in positive and negative CEI that are not representative of the likely actual Trading Charges of the Interconnector User. This may lead to an unnecessarily onerous requirement for EI monitoring, with associated costs, for Interconnector Users when compared to Lead Parties of other BM Unit types.

## 1.5 Alternative Modification

Neither the SSMG nor any of the respondents to the Consultation Document identified any Alternative Modifications that might better address the perceived defect.

## 2 COSTS<sup>5</sup>

### PROGRESSING MODIFICATION PROCEDURES

<b>Demand Led Cost</b>	£ 0
<b>ELEXON Resource</b>	60 Man days (equating to approximately £9,200)

### IMPLEMENTATION COSTS

		<b>Stand Alone Cost</b>	<b>P140 Incremental Cost</b>	<b>Tolerance</b>
<b>Service Provider<sup>6</sup> Cost</b>	Change Specific Cost	£ 196,264	£ 196,264	+/- 20% (£39,253)
	Release Cost	£ 299,765	N/A	+/- 20% (£59,953)

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

<sup>6</sup> BSC Agent and non-BSC Agent Service Provider and software Costs

	Total Service Provider Cost	£ 496,029	£ 196,264	+/- 20%
<b>Implementation Cost</b>	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%
<b>Total Demand Led Implementation Cost</b>		£ 601,029	£ 222,264	+/- 25%

<b>ELEXON Implementation Resource Cost</b>		421 Man days £ 168,400	141 Man days £ 56,400	+/- 5%
<b>Total Implementation Cost</b>		£ 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

### 3 RATIONALE FOR MODIFICATION GROUP'S RECOMMENDATIONS TO THE PANEL

This section summarises the rationale for the SSMG recommendations, further detail can be found in the body of this report.

#### 3.1 Proposed Modification

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

The SSMG further 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.

The SSMG considered that P140 may facilitate more effective competition in the market through the realisation of the benefits detailed in Section 1.4 of this document:

- 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 SSMG 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 SSMG considered that the decrease in BSCCo resourcing required for handling 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’.

### **3.2 Implementation Dates**

In accordance with responses to the impact assessment, the recommended Implementation Date for Proposed Modification P140 allows a 34 week lead time following an Authority decision in order to progress the relevant changes through the industry review and approval process. Furthermore, the recommended Implementation Dates are consistent with the BSCCo CVA Release strategy.

## **4 IMPACT ON BSC SYSTEMS AND PARTIES**

### **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 received 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 newly irrelevant data 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 BSCCo resources required 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 time the BSCCo needs to resource 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 is 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><b>ECVAA calculation of Credit Cover Percentage:</b></p> <p>The half hourly calculation of Credit Cover Percentage 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.</p> <p>These changes would need to be adopted without significant delay to the timing of when the calculation completes.</p>

System / Process	Potential Impact of Proposed/Alternative Modification
	<p><b>CRA Processing of CALF values:</b></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><b>Modified ECVAA-I014 'Notification Report'</b></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"> <li>• Party value: Credit Assessment Credited Energy Volume (MWh) (CAQCE<sub>pi</sub>)</li> <li>• Account-level value: Account Period Credit Assessment Credited Energy Volume (MWh) (CAQCE<sub>ai</sub>)</li> <li>• Cumulative Account-level value: Account Cumulative Credit Assessment Credited Energy Volume (MWh) (CCAQCE<sub>ai</sub>)</li> </ul> <p>This flow would be amended to also include two sub totals for each of these three data items. The first sub total 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 sub totals would equal the respective Party, Account-level or Cumulative Account-level value respectively when added together.</p>

### 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 draft 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 Process 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**

## **6.1 Explanation of Consultations**

The SSMG conducted two consultations regarding P140. The first was sought to establish whether there was agreement in the perception of the defect and support for the Proposed Modification. The second consultation, requested by the Panel, sought further substantiation for the cost/benefit analysis of P140. The results of these consultations are presented separately below.

## 6.2 First Consultation

Consultation question	Respondent agrees	Respondent disagrees	Opinion unexpressed
1) Do you believe Interconnector Users are disproportionately disadvantaged by the current CEI calculation?	6	1	0
2) Do you support the use of a different methodology for calculating CAQCE for Interconnector BM Units?	7	0	0
3) Do you support the use of Period FPN as the CAQCE for Interconnector BM Units?	7	0	0
4) Do you believe there are any alternative approaches not considered by the group that might better resolve the perceived defect?	0	7	0
5) Do you believe P140 would better facilitate achievement of the Applicable BSC Objectives?	7	0	0

## 6.3 Modification Group's summary of the consultation responses

Seven consultation responses were received, representing the views of 34 BSC Parties.

The majority of respondents (33 Parties) agreed that Interconnector Users are disproportionately disadvantaged by the current CEI calculation on the basis that the current calculation can generate levels of Energy Indebtedness that are unrepresentative of the risk that they pose to the market. One respondent (1 Party) disagreed on this question, stating that Interconnector Users may be either disproportionately disadvantaged or advantaged by the current calculation.

All respondents (34 Parties) supported the use of a different methodology for calculating CAQCE for Interconnector BM Units. Respondents giving a rationale for their answer cited an increase in the ability of the CEI calculation to reflect the risk that a Party presents to the market that would result from such a change. Two respondents (2 Parties) considered that a more representative CEI calculation would reduce overall risks to the BSC community, with one (1 Party) additionally considering that this would reduce barriers to entry. One respondent (2 Parties) considered that historical data (upon which the current CAQCE calculation is based) cannot be reliably used to accurately predict the performance of Interconnector BM Units.

All respondents (34 Parties) supported the use of Period FPN as the CAQCE for Interconnector BM Units. Again, the predominant rationale for this was due to an increase in the ability of the CEI calculation to accurately predict the physical performance of the BM Unit. Two respondents (11 Parties) noted that FPNs are considered to be metered volumes ( $QM_{ij}$ ) for Interconnector BM Units and that this ensured that they would represent a good proxy in the CEI calculation.

None of the respondents (34 Parties) suggested any alternative approaches not considered by the group that might better resolve the perceived defect.

All respondents (34 Parties) believed that P140 would better facilitate achievement of the Applicable BSC Objectives. Five out of seven (19 Parties) believed it would better facilitate Applicable BSC Objective c), one (14 Parties) believed it would better facilitate both Applicable BSC Objectives c) and d), and one (1 Party) did not state which it would better facilitate. The rationales used in responding to this question were reiterations of those used for previous questions. Three respondents (25 Parties)

cited a reduction in barriers to entry through the alleviation of the risk that an Interconnector User might accrue excessive unrepresentative positive CEI that they would have to lodge Credit Cover against. Four respondents (18 Parties) also contended that it would mitigate against the market being exposed to risk if Interconnector Users may be in a position to provide too little Credit Cover under the current arrangements.

#### **6.4 Comments and views of the Modification Group**

The SSMG discussed a specific concern raised by one respondent that their support for using Period FPN in the CEI calculation was predicated upon FPNs becoming deemed metered volumes in lieu of actual metered volumes.

The Transmission Company attendee provided assurance that this was the case for the French Interconnector, with the Mid Channel Nominations (MCNs) provided by Users for this Interconnector link providing the basis both for the FPNs and the BM Unit Metered Volume ( $QM_{ij}$ ) calculated for these BM Units. BSCCo reported back that similar provisions existed for the Scottish Interconnector with FPNs providing a basis for the Expected Transfer of the Interconnector User. The Scottish Interconnector Administrator is obligated to determine deemed metered volumes for each BM Unit by integrating its Expected Transfer across the Settlement Period, and this figure is submitted onward to the SAA for use in Settlement as a  $QM_{ij}$  value. The determination of deemed metered volumes for both the Scottish and French Interconnectors is governed by the respective agreements for the two links.

The SSMG agreed that FPNs are the source data for deemed metered volumes for the two Interconnectors and no minority views were expressed.

## 6.5 Second Consultation

Consultation question	Respondent agrees	Respondent disagrees	Opinion unexpressed
1) How would your organisation be affected by the under-estimation of Trading Charges for Interconnector Users resulting from the current Energy Indebtedness calculation?	See summary below / Annex 4		
2) Please can you provide an estimation of the annual cost to your organisation of lodging Credit Cover against Trading Charges. This figure should be expressed as a percentage of the face value of the Credit Cover.	See summary below / Annex 4		
3) Would your organisation reduce the levels of Credit Cover they have lodged were Modification Proposal P140 to be approved and implemented?	4	4	1
4) Do you agree with the SSMG's view that the benefits of P140 (outlined in Section 4 of the Second Consultation Document) outweigh the costs (per Section 7 of the Second Consultation Document) sufficiently that P140 will better facilitate achievement of the Applicable BSC Objectives?	5	2	2
5) Are there any further comments on P140 that you wish to make?	4	4	1

## 6.6 Modification Group's summary of the consultation responses

Nine consultation responses were received, representing the views of 34 BSC Parties.

Eight respondents (33 Parties) answered the first consultation question on the impact of the under-estimation of Interconnector Trading Charges. The most prevalent argument put forward by six respondents (26 Parties), was that the current calculation left significant potential for Parties to be exposed to the risk of an Interconnector User's actual Trading Charges being unsecured. Several identified that this exposure would potentially require cost recovery from other Parties were the Interconnector User to default on payments. One respondent (1 Party) noted that in extreme circumstances, this could result in costs being passed on to customers through price increases. One respondent (6 Parties) noted that high levels of CEI may be generated at times where the Interconnector User is heavily in demand due to high market prices, and that the impact on EI may be as high as the difference between zero and full utilisation of available Interconnector capacity. One Interconnector User (1 Party) noted that their EI, and the amount of Credit Cover they have lodged against it, is primarily driven by the CEI calculation rather than the AEI estimation of outstanding Trading Charges.

Four respondents (23 Parties) gave an estimation of the annualised cost of Credit Cover to their organisation<sup>7</sup>. The range of these figures was between 0.85% and 4%, averaging 1.71%.

<sup>7</sup> A fifth respondent who gave an exact figure in answer to this question requested the BSCCo remove this from both the Annexes to this Assessment Report and these headline statistics to respect their confidentiality.

Four respondents (14 Parties) stated that they would reduce their Credit Cover were P140 to be approved. Two (3 Parties) of these indicated that they would do so to bring it in line with their Trading Charges, with the other two (11 Parties) not giving explicit reasons. Four respondents (19 Parties) stated that they would not reduce their Credit Cover as P140 would not impact their activities sufficiently to warrant such a change.

Five respondents (24 Parties) concurred with the SSMG's belief that the benefits of P140 would outweigh the costs sufficiently that it would better facilitate achievement of the Applicable BSC Objectives. Of these, two (2 Parties) cited an amelioration of the risk that the EI calculation might expose the market to unsecured liabilities for Trading Charges, and three (4 Parties) stated that competition on the Interconnector would be better facilitated. A further benefit related to costs put forward by one respondent (2 Parties) is that P140 would negate the need for Interconnector Users to appeal CALF values, resulting in BSCCo savings.

Two respondents (8 Parties) disagreed, believing that the costs of P140 would outweigh the benefits. One (3 Parties) of these argued that savings would be small compared to costs, with the overall benefit of P140 lessened by the likelihood of many Interconnector Users also having other BM Unit types in their portfolio who would be covered by the same Credit provision. It was further contended by that respondent that P140 was discriminatory in favour of Interconnector Users as it resulted in a more accurate calculation of EI purely for this BM Unit type.

## **6.7 Comments and views of the Modification Group**

The SSMG considered the arguments put forward against P140 carefully.

The SSMG disagreed with the opinion that P140 might be considered discriminatory as it resulted in a more accurate calculation of EI only for Interconnector Users. The SSMG considers that P140 will result in an EI calculation that accurately reflects the outstanding Trading Charges of the Party and does not result in excessive and unrealistic over and under-estimations. It would therefore be realistic, rather than favourable, in its treatment of Interconnector BM Units. This will flow through to the major benefit of P140, which is perceived as a reduction in the exposure of the whole market to risk of Interconnector Users accruing unsecured liabilities for Trading Charges. The SSMG believes this will benefit all Parties, not simply Interconnector Users, and that there is not therefore a persuasive case to suggest that P140 is discriminatory.

For similar reasons, the SSMG did not agree with the respondents who suggested that costs outweighed benefits, as it was believed that this viewpoint had been formed from looking purely at benefits in terms of cost of Credit Cover reductions for Interconnector Users, and did not fully take into account the amelioration in market risk benefiting all Parties that would be facilitated by P140. The SSMG retained the belief that there is clear statistical evidence<sup>8</sup> to suggest risk amelioration benefits will significantly outweigh costs.

It was noted that one respondent had suggested that changes to CALF methodologies might be an alternative (though sub-optimal) approach to the perceived defect were P140 to be rejected, but that consideration of CALF methodologies fell outside the scope of the Modification Procedures and had been considered by the ISG<sup>9</sup>.

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<sup>8</sup> For further details, please see Section 1.4 of this document.

<sup>9</sup> For further details, please see Section 1.3.6 of this document.

## 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 identified a development cost of £46,000 were it 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 re-use 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 Transmission Company did not identify any consequential changes to Core Industry documents as arising from P140.

Please see Annex 4 for the Transmission Company Analysis and Impact Assessment Pro-forma.

### 7.2 Comments and views of the Modification Group

The SSMG acknowledged the Transmission Company's suggestion that costs could be reduced by adopting a solution that re-used the existing FPN data file sent to the Balancing Mechanism Reporting Agent ('BMRA') after Gate Closure, pursuant to Q6.1.11, and requested that the ECVAA consider a solution based upon this approach as part of their Detailed Level Impact Assessment. In such a solution, for the most recent Settlement Period within the CCP calculation, where Period FPN data had not been received prior to commencement of the half hourly calculation of CCP, it would default to use Period FPN for the preceding Settlement Period. Additionally, at each Credit Check the ECVAA would need to integrate the Period FPN for the preceding Settlement Period into the calculation in order to avoid simply smearing one defaulted Period FPN value across all Settlement Periods in the CEI calculation.

The solution proposed by the ECVAA based upon this approach resulted in a higher change specific cost for ECVAA changes resulting from a greater degree of complexity required in the solution. The increase in ECVAA Change Specific costs (£39,152) was of a slightly lesser magnitude to the decrease in Transmission Company costs (£46,000) resulting from the adoption of this solution.

The SSMG acknowledged that adopting this approach would ordinarily result in one Settlement Period of defaulted data being present in the calculation of CEI at any given time<sup>10</sup>, but believed the impact of this defaulted data would be small, as the overall EI calculation is derived from 29 days data. This solution was regarded as having greater merit than requiring the Transmission Company to implement a new pre Gate Closure data flow for several reasons.

Firstly, it would ensure that the effectiveness of the solution adopted remained under the governance of the Code. The Interconnection Agreements are not Code Subsidiary documents and the BSCCo could not therefore oblige the Interconnector Administrators not to amend FPN data between the timing of any pre Gate Closure data flow and Gate Closure. This would not appear to be a likely event under the current Interconnection Agreements, but could not be precluded against by BSCCo were these to be amended or renegotiated. There would therefore be a risk that declarations in a pre Gate

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<sup>10</sup> ECVAA operational experience has been that receipt of the existing half-hourly FPN data flow from the Transmission Company ordinarily occurs after the calculation of CCP has taken place.

Closure data flow could become de-coupled from actual FPNs were the nature of the Interconnection Agreements to change. Re-using the existing post Gate Closure FPN data flow obviates this risk.

Secondly, it would extend the use of an existing concept and set of definitions (for FPN) rather than requiring the adoption of a new concept and set of definitions to express the data derived in a pre Gate Closure flow, which would have been necessary to avoid logical conflicts in the definition of when Physical Notification data becomes 'final'. The SSMG noted the existing complexity of Section M, 'Credit Cover and Credit Default', of the Code, and perceived benefits in an approach that minimised the changes required to incorporate P140.

The SSMG considered whether it would be appropriate to delay the calculation of CCP that takes place after Gate Closure until the existing flow of FPN data from the Transmission Company to the BMRA had been received, in order to allow the ECVA solution detailed above to be applied without the defaulting of data for one Settlement Period.

It was noted that this would result in a delay of the calculation of CCP for all Parties, regardless of whether they had Interconnector BM Units within their portfolio. This would delay a Party entering Level 2 Credit Default (pursuant to M3.3) being notified as such to the market via the Balancing Mechanism Reporting Service ('BMRS'), whilst leaving the commencement of the Credit Default Refusal Period triggered by that event unchanged. This would therefore result in a reduction in the time available to the counterparties of the Party in Credit Default to modify their contract position accordingly. This was considered to be an undesirable and avoidable side-effect of delaying the calculation of CCP. The SSMG therefore did not support delaying this calculation in order to integrate the existing Transmission Company FPN dataflow. It should be noted that the agreed solution does not preclude such a step being taken in future, and could be applied with, or without, a delay to the calculation of CCP.

## 8 DOCUMENT CONTROL

### 8.1 Authorities

Version	Date	Author	Reviewer	Change Reference
0.1	19/11/03	Richard Hall	Roger Salomone	Peer review
0.1	19/11/03	Richard Hall	Neil Cohen	Peer review
0.2	24/11/03	Richard Hall	SSMG	SSMG review
0.3	27/11/03	Richard Hall	SSMG	SSMG review
0.4	01/12/03	Richard Hall	Change Delivery	Technical & Quality review
1.0	05/12/03	Richard Hall	Panel	For decision
1.1	23/01/04	Richard Hall	Roger Salomone	Peer review
1.2	27/01/04	Richard Hall	SSMG	SSMG review
2.0	12/02/04	Richard Hall	Panel	For decision

### 8.2 References

Ref	Document	Owner	Issue date	Version
1	Modification Proposal P140 ( <a href="http://www.elexon.co.uk/docs/ta/modifications/modsprop/P140/p140.pdf">http://www.elexon.co.uk/docs/ta/modifications/modsprop/P140/p140.pdf</a> )	ELEXON	21/08/03	1.0
2	P140 Initial Written Assessment (IWA P140) ( <a href="http://www.elexon.co.uk/docs/ta/modifications/modsprop/P140/P140_IWA.pdf">http://www.elexon.co.uk/docs/ta/modifications/modsprop/P140/P140_IWA.pdf</a> )	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) ( <a href="http://www.elexon.co.uk/DOCS/ta/market_data/CALF_Guidance.pdf">http://www.elexon.co.uk/DOCS/ta/market_data/CALF_Guidance.pdf</a> )	BSC Panel / ISG	24/04/03	5.0
5	BSCP15 'BM Unit Registration' ( <a href="http://www.elexon.co.uk/docs/ta/bscrel_docs/bscps/v6/BSCP15.pdf">http://www.elexon.co.uk/docs/ta/bscrel_docs/bscps/v6/BSCP15.pdf</a> )	ELEXON	29/09/03	6.0
6	ISG/24/267 'Suggested amendments to Credit Assessment Load Factor (CALF) treatment of Interconnector BM Units' ( <a href="http://www.elexon.co.uk/docs/ta/panel/ISG/papers/024_0267.pdf">http://www.elexon.co.uk/docs/ta/panel/ISG/papers/024_0267.pdf</a> )	ELEXON	28/01/03	1.0
7	ISG/27/309 'Modelling of alternative Interconnector methodologies' ( <a href="http://www.elexon.co.uk/docs/ta/panel/ISG/papers/027_0309.pdf">http://www.elexon.co.uk/docs/ta/panel/ISG/papers/027_0309.pdf</a> )	ELEXON	22/04/03	1.0
8	Interconnexion France-Angleterre IFA Access Rules ( <a href="http://www.nationalgrid.com/uk/activities/other/Definitive_Issue_4.1.pdf">http://www.nationalgrid.com/uk/activities/other/Definitive_Issue_4.1.pdf</a> )	NGC / RTE	31/07/02	4.0
9	Access & Allocation Code for the Scotland-England Interconnector ( <a href="http://www.scottish-southern.co.uk/ssegroup/KeyDocumentsPDFs/SSEA_ACode0203.pdf">http://www.scottish-southern.co.uk/ssegroup/KeyDocumentsPDFs/SSEA_ACode0203.pdf</a> , <a href="http://www.scottishpower.com/applications/publish/downloadPublicDocument.jsp?guid=2354e4_efd288c268_7f860a026463&amp;folderPath=/root/ScottishPower%20Media%20Library/Documents%20and%20Reports/&amp;downloadParameter=Attachment">http://www.scottishpower.com/applications/publish/downloadPublicDocument.jsp?guid=2354e4_efd288c268_7f860a026463&amp;folderPath=/root/ScottishPower%20Media%20Library/Documents%20and%20Reports/&amp;downloadParameter=Attachment</a> )	Scottish Hydro-Electric Transmission Ltd / SP Transmission Limited		
10	Modification Proposal P140 Consultation Document (P140AC10) ( <a href="http://www.elexon.co.uk/docs/ta/modifications/modsprop/P140/P140AC10.pdf">http://www.elexon.co.uk/docs/ta/modifications/modsprop/P140/P140AC10.pdf</a> )	SSMG	03/11/03	1.0

## ANNEX 1 DRAFT LEGAL TEXT

- Text for Proposed Modification is in the 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 (FIRST CONSULTATION)

Consultation issued on 3 November 2003.

Representations were received from the following parties:

No.	Company	File Number	No. BSC Parties Represented	No. Non-Parties Represented
1.	Powergen	P140_ASS_001	14	0
2.	EDF Trading Ltd	P140_ASS_002	2	0
3.	EDF Energy	P140_ASS_003	9	0
4.	Scottish Power	P140_ASS_004	6	0
5.	British Gas Trading	P140_ASS_005	1	0
6.	Entergy-Koch	P140_ASS_006	1	0
7.	Total Gas and Power	P140_ASS_007	1	0

**P140\_ASS\_001 – Powergen**

<b>Respondent:</b>	Powergen
<b>No. of BSC Parties Represented</b>	14
<b>BSC Parties Represented</b>	Powergen UK plc, Powergen Retail Limited, Cottam Development Centre Limited, TXU Europe Drakelow Limited, TXU Europe Ironbridge Limited, TXU Europe High Marnham Limited, Midlands Gas Limited, Western Gas Limited, TXU Europe (AHG) Limited, TXU Europe (AH Online) Limited, Citigen (London) Limited, Severn Trent Energy Limited (known as TXU Europe (AHST) Limited), TXU Europe (AHGD) Limited and Ownlabel Energy Limited
<b>No. of Non BSC Parties Represented</b>	-
<b>Non BSC Parties represented</b>	-
<b>Role of Respondent</b>	Supplier, Generator, Trader & Exemptable Generator.

<b>Q</b>	<b>Question</b>	<b>Response</b>	<b>Rationale</b>
1.	Do you believe Interconnector Users are disproportionately disadvantaged by the current CEI calculation?  <i>Please give rationale</i>	Yes	Simply as a result of the volatility of their volumes, the CEI calculation generally appears to perform less accurately for interconnector user BMUs than for more conventional BMUs.
2.	Do you support the use of a different methodology for calculating CAQCE for Interconnector BM Units?  <i>Please give rationale</i>	Yes	
3.	Do you support the use of Period FPN as the CAQCE for Interconnector BM Units?  <i>Please give rationale</i>	Yes	The use of FPNs would appear to be a sensible way forward as long as FPNs continue to be used as the interconnector equivalent of metered volumes.
4.	Do you believe there are any alternative approaches not considered by the group that might better resolve the perceived defect?  <i>Please give rationale</i>	No	

Q	Question	Response	Rationale
5.	<p>Do you believe P140 would better facilitate achievement of the Applicable BSC Objectives</p> <p><i>Please give rationale and state objective(s)</i></p>	Yes	<p>Providing for more accurate credit cover requirements from interconnector Users will result in benefits for all Parties as well as those using the interconnectors. Clearly, an over-calculation of indebtedness can be seen as a potential barrier to entry for interconnector users. Additionally, all parties are exposed if interconnector users are providing far too little credit. Therefore it could be argued that objective c) and d) are better facilitated.</p> <p>Objective d) is probably offset to some extent by the cost of implementation.</p>

**P140\_ASS\_002 – EDF Trading Ltd**

<b>Respondent:</b>	EDF Trading Ltd
<b>No. of BSC Parties Represented</b>	2
<b>BSC Parties Represented</b>	EDF Trading Ltd and EdF (Generation)
<b>No. of Non BSC Parties Represented</b>	None
<b>Non BSC Parties represented</b>	N/a
<b>Role of Respondent</b>	Trader/ Generator

<b>Q</b>	<b>Question</b>	<b>Response</b>	<b>Rationale</b>
1.	<p>Do you believe Interconnector Users are disproportionately disadvantaged by the current CEI calculation?</p> <p><i>Please give rationale</i></p>	Yes	<p>The current CEI calculation can result in significant positive or negative magnitudes of CEI that are disproportionate to the risks the Interconnector User poses to the market. This can therefore disproportionately disadvantage Interconnector Users when they have to pay large sums of Credit Cover and at sometimes short notice. It can also disadvantage the rest of the market when the CEI calculation determines a negative figure.</p>
2.	<p>Do you support the use of a different methodology for calculating CAQCE for Interconnector BM Units?</p> <p><i>Please give rationale</i></p>	Yes	<p>Absolutely, the results of the analysis out show that the historical data can not be reliably used to accurately predict the performance of the interconnector BM Units. A different methodology for calculating CAQCE has to be found.</p>

Q	Question	Response	Rationale
3.	<p>Do you support the use of Period FPN as the CAQCE for Interconnector BM Units? <i>Please give rationale</i></p>	Yes	<p>The use of Period FPN as the CAQCE for Interconnector BM Units appears to be a good way of using trading data for Interconnector Users, that bears a good correlation to the risks posed to the market.</p> <p>Unlike other BMUs, Interconnector BMUs have to submit their 'FPN' data significantly in advance of Gate Closure and they are committed to those volumes ie they must deliver. They are monitored by the Interconnector Administrator and the only reason for the DMVs being different from the FPNs is for reasons of unavailability of the interconnector. Therefore, the FPN data is a reasonable and accurate measure for the interconnector BM Units in the CEI calculation.</p>
4.	<p>Do you believe there are any alternative approaches not considered by the group that might better resolve the perceived defect? <i>Please give rationale</i></p>	No	
5.	<p>Do you believe P140 would better facilitate achievement of the Applicable BSC Objectives <i>Please give rationale and state objective(s)</i></p>	Yes	<p>P140 will better facilitate the achievement of Applicable BSC Objective (c) "Promoting effective competition..."</p> <p>Reducing the risk of excessive credit cover on Interconnector Users will help reduce the barriers to new market entrants which must facilitate more effective and efficient competition in the market Moreover, the use of more accurate figures will improve the overall accuracy of the calculation of Energy Indebtedness will improve and will lead to better risk protection for all BSC Parties.</p>

**P140\_ASS\_003 – EDF Energy**

<b>Respondent:</b>	EDF Energy
<b>No. of BSC Parties Represented</b>	9
<b>BSC Parties Represented</b>	EDF Energy plc, London Electricity plc, Jade Power Generation Ltd, Sutton Bridge Power Ltd, West Burton Power, London Power Networks plc, EPN Distribution Ltd, Seeboard Power Networks plc, Seeboard Energy Ltd,
<b>No. of Non BSC Parties Represented</b>	
<b>Non BSC Parties represented</b>	
<b>Role of Respondent</b>	Supplier / Generator / Party Agent / Distribution Business

<b>Q</b>	<b>Question</b>	<b>Response</b>	<b>Rationale</b>
1.	Do you believe Interconnector Users are disproportionately disadvantaged by the current CEI calculation?  <i>Please give rationale</i>	Yes	EDF Energy believe that the current CEI calculation can result in significant magnitudes of CEI, being either positive or negative, and that this does disproportionately disadvantage Interconnector Users.  The analysis that was carried out shows that the historical data will not accurately predict that future and present performance of the interconnector BM Units.
2.	Do you support the use of a different methodology for calculating CAQCE for Interconnector BM Units?	Yes	EDF Energy does support the use of a different methodology for calculating CAQCE.
3.	Do you support the use of Period FPN as the CAQCE for Interconnector BM Units?  <i>Please give rationale</i>	Yes	EDF Energy supports the use of Period FPN as the CAQCE for Interconnector BM Units.  The FPN is an accurate measure as it is used for the deemed metered volumes for the interconnector BM Units. Through using these more accurate figures, the overall accuracy of the calculation of Energy Indebtedness will improve, which will lead to better risk protection for BSC Parties.

Q	Question	Response	Rationale
4.	<p>Do you believe there are any alternative approaches not considered by the group that might better resolve the perceived defect?</p> <p><i>Please give rationale</i></p>	No	
5.	<p>Do you believe P140 would better facilitate achievement of the Applicable BSC Objectives</p> <p><i>Please give rationale and state objective(s)</i></p>	Yes	<p>EDF Energy believe that P140 will better facilitate the achievement of Applicable BSC Objective (c) "Promoting effective competition..."</p> <p>By reducing the risk of accumulating liabilities on interconnector users, this will in turn reduce the barriers to new market entrants. This will facilitate more effective and efficient competition in the market</p>

**P140\_ASS\_004 – Scottish Power**

<b>Respondent:</b>	Man Kwong Liu (SAIC Ltd)
<b>No. of BSC Parties Represented</b>	6
<b>BSC Parties Represented</b>	Scottish Power UK plc; ScottishPower Energy Management Ltd.; ScottishPower Generation Ltd; ScottishPower Energy Retail Ltd.; SP Transmission Ltd; SP Manweb plc.
<b>No. of Non BSC Parties Represented</b>	
<b>Non BSC Parties represented</b>	
<b>Role of Respondent</b>	Supplier / Generator / Trader / Consolidator / Exemptable Generator / Party Agent

<b>Q</b>	<b>Question</b>	<b>Response</b>	<b>Rationale</b>
•	Do you believe Interconnector Users are disproportionately disadvantaged by the current CEI calculation?  <i>Please give rationale</i>	Yes	We agree that Interconnector Users are disproportionately affected by inaccuracies in the CEI calculation due to a greater likelihood that historical performance measures will not accurately predict short term current performance for this BM Unit type.
•	Do you support the use of a different methodology for calculating CAQCE for Interconnector BM Units?  <i>Please give rationale</i>	Yes	As mentioned above, Interconnector users are disadvantaged. We therefore agree that there needs to be a more accurate calculation methodology.  We also believe that this should be extended to all Production BMUs, as the same problem with historical CALF values vs. current trading patterns applies to generating units. FPN submitted represents Party's best estimate of BMU output and is near to real time. Production account imbalances, like Interconnector imbalances, only tend to occur due to technical failure.
•	Do you support the use of Period FPN as the CAQCE for Interconnector BM Units?  <i>Please give rationale</i>	Yes	FPN submitted represents Party's best estimate of BMU output and is near to real time.

Q	Question	Response	Rationale
•	<p>Do you believe there are any alternative approaches not considered by the group that might better resolve the perceived defect?</p> <p><i>Please give rationale</i></p>	No	
•	<p>Do you believe P140 would better facilitate achievement of the Applicable BSC Objectives</p> <p><i>Please give rationale and state objective(s)</i></p>	Yes	<p>This Modification will result in a more accurate estimate of potential balancing charges, enabling the release of excess credit cover collateral posted with Elexon. We therefore believe P140 would better facilitate Applicable BSC Objective (c) – ‘Promoting effective competition.....’</p>

**P140\_ASS\_005 – British Gas Trading**

<b>Respondent:</b>	Mark Manley
<b>No. of BSC Parties Represented</b>	
<b>BSC Parties Represented</b>	British Gas Trading
<b>No. of Non BSC Parties Represented</b>	
<b>Non BSC Parties represented</b>	
<b>Role of Respondent</b>	

<b>Q</b>	<b>Question</b>	<b>Response</b>	<b>Rationale</b>
1.	Do you believe Interconnector Users are disproportionately disadvantaged by the current CEI calculation?  <i>Please give rationale</i>	No	BGT believe that Interconnectors can be disproportionately advantaged or disadvantaged by the CEI calculation. An element of the calculation, which utilises average historical data, is unrepresentative of the actions of the Interconnector for the forthcoming BSC Season. This can lead to an Interconnector Users indebtedness being under or over stated.
2.	Do you support the use of a different methodology for calculating CAQCE for Interconnector BM Units?  <i>Please give rationale</i>	Yes	BGT do support the use of a different methodology for the calculation of Interconnector BM Units CAQCE. Based on the analysis provided the proposed methodology is much more accurate than the existing methodology. BGT support developments that more accurately reflect Parties indebtedness and thereby reduce the risks faced by the BSC community.

Q	Question	Response	Rationale
3.	<p>Do you support the use of Period FPN as the CAQCE for Interconnector BM Units?</p> <p><i>Please give rationale</i></p>	Yes	<p>As this improves the accuracy of the calculation BGT are supportive of the use of the Period FPN for BM Units. This is predicated on the fact that the FPN's become the deemed-metered volumes for the interconnector in the absence of actual meter readings. There is a caveat to BGT's support of the modification, in respect of concerns about gaming opportunities. BGT believes the current process has checks in place to ensure FPN submissions are not erroneous and are in accordance with the Parties acquired capacity on the link. BGT would like confirmation that this assurance exists in respect of FPN submissions on the Interconnector.</p>
4.	<p>Do you believe there are any alternative approaches not considered by the group that might better resolve the perceived defect?</p> <p><i>Please give rationale</i></p>	No	
5.	<p>Do you believe P140 would better facilitate achievement of the Applicable BSC Objectives</p> <p><i>Please give rationale and state objective(s)</i></p>	Yes	<p>BGT believe P140 does better facilitate achievement of Applicable BSC Objective (c). The proposed solution will ensure that Interconnector Users energy indebtedness is more accurately calculated. This will ensure Interconnector Users will be required to post a representative amount of credit cover. This should reduce barriers to entry and thereby encourage competition in the sale and generation of electricity.</p> <p>The accurate derivation of Parties energy indebtedness will also minimises the risk faced by all BSC Parties. Accurate calculation will ensure that an Interconnector Users indebtedness is not understated whilst also reducing the potential for BSC Parties to be exposed to an unrecoverable debt. For Parties with Interconnector BM Units it will also remove the potential for an erroneous positive indebtedness to be utilised to offset a Parties negative indebtedness for its portfolio credit position.</p>

**P140\_ASS\_006 – Entergy-Koch Trading Europe Ltd**

<b>Respondent:</b>	<i>Adam Cooper</i>
<b>No. of BSC Parties Represented</b>	<i>1</i>
<b>BSC Parties Represented</b>	<i>Entergy-Koch Trading Europe Ltd</i>
<b>No. of Non BSC Parties Represented</b>	
<b>Non BSC Parties represented</b>	
<b>Role of Respondent</b>	<i>Trader</i>

<b>Q</b>	<b>Question</b>	<b>Response</b>	<b>Rationale</b>
1.	Do you believe Interconnector Users are disproportionately disadvantaged by the current CEI calculation?  <i>Please give rationale</i>	Yes	The analysis seems to indicate that there may be times when Interconnector users are disadvantaged by the current credit arrangements. Equally, other participants may be disadvantaged when the credit arrangements underestimate the level of exposure.
2.	Do you support the use of a different methodology for calculating CAQCE for Interconnector BM Units?  <i>Please give rationale</i>	Yes	The different methodology appears to result in a significant improvement in the calculation of CAQCE. This should better facilitate the achievement of the relevant objectives through improving credit arrangements that will decrease overall risks. Lower risks will reduce the barriers to entry and allow more competition to emerge between parties.
3.	Do you support the use of Period FPN as the CAQCE for Interconnector BM Units?  <i>Please give rationale</i>	Yes	See the answer above.
4.	Do you believe there are any alternative approaches not considered by the group that might better resolve the perceived defect?  <i>Please give rationale</i>	No	The proposal seems to be the most practical approach to solving the anomaly in the current arrangements.

Q	Question	Response	Rationale
5.	Do you believe P140 would better facilitate achievement of the Applicable BSC Objectives  <i>Please give rationale and state objective(s)</i>	Yes	The proposal will improve BSC Objective (c) as better-targeted credit arrangements will result in lower risks for individual parties and all system users. The level of risk is an important element in the decision to participate in a market, as is the efficient application of credit rules that are not discriminatory. Greater levels of participation should lead to increased competition to the benefit of end customers.

**P140\_ASS\_007 – Total Gas & Power**

<b>Respondent:</b>	Total Gas & Power Ltd
<b>No. of BSC Parties Represented</b>	1
<b>BSC Parties Represented</b>	Total Gas & Power Ltd
<b>No. of Non BSC Parties Represented</b>	None
<b>Non BSC Parties represented</b>	N/A
<b>Role of Respondent</b>	Trader / Supplier

<b>Q</b>	<b>Question</b>	<b>Response</b>	<b>Rationale</b>
1.	Do you believe Interconnector Users are disproportionately disadvantaged by the current CEI calculation?  <i>Please give rationale</i>	Yes	The analysis supports the view that significant inaccuracies in the CEI calculation are more likely for interconnector users since historical performance does not accurately predict short-term performance for this BM Unit type due to volatility in the volumes used under the present methodology.
2.	Do you support the use of a different methodology for calculating CAQCE for Interconnector BM Units?  <i>Please give rationale</i>	Yes	The proposed methodology appears to result in a significant improvement in the calculation of CAQCE.
3.	Do you support the use of Period FPN as the CAQCE for Interconnector BM Units?  <i>Please give rationale</i>	Yes	TG&P consider this to be the most pragmatic method for addressing the defect in the current arrangements.
4.	Do you believe there are any alternative approaches not considered by the group that might better resolve the perceived defect?  <i>Please give rationale</i>	No	

Q	Question	Response	Rationale
5.	Do you believe P140 would better facilitate achievement of the Applicable BSC Objectives  <i>Please give rationale and state objective(s)</i>	Yes	Reducing the risk of excessive credit cover will enable interconnector users to place credit levels commensurate with their trading activities. Better valuation of this risk should in turn promote effective competition.

## ANNEX 4 CONSULTATION RESPONSES (SECOND CONSULTATION)

Consultation issued on 6 January 2004.

Where a respondent provided financial information in their response to question 1, 2 or 3, they were individually contacted to establish whether they wished for this information to be made publicly visible in the Assessment Report. If they wished for this information to be kept confidential, it has been removed, with a comment to reflect this inserted in square brackets. All confidential information will be provided to the Authority, pursuant to clause F.2.10.3 of the Code.

Representations were received from the following parties:

No	Company	File Number	No. BSC Parties Represented	No. Non-Parties Represented
1.	Entergy-Koch Trading Limited	P140_ASS_001	1	0
2.	Scottish Power UK plc	P140_ASS_002	6	0
3.	EDF Trading Ltd and EDF (Generation)	P140_ASS_003	2	0
4.	Aquila Networks plc	P140_ASS_004	1	0
5.	British Gas Trading	P140_ASS_005	1	0
6.	National Grid	P140_ASS_006	1	0
7.	Powergen	P140_ASS_007	14	0
8.	Scottish and Southern Energy	P140_ASS_008	5	0
9.	British Energy Power & Energy Trading Ltd	P140_ASS_009	3	0

### P140\_ASS\_001 – Entergy-Koch Trading Limited

<b>Respondent:</b>	Entergy-Koch Trading Limited
<b>No. of BSC Parties Represented</b>	1
<b>BSC Parties Represented</b>	ENTERGY
<b>No. of Non BSC Parties Represented</b>	none
<b>Non BSC Parties represented</b>	N/A
<b>Role of Respondent</b>	Trader

Q	Question	Response	Rationale
1	<p>How would your organisation be affected by the under-estimation of Trading Charges for Interconnector Users resulting from the current Energy Indebtedness calculation?  <i>Please provide quantitative detail of the extent of this risk, if possible.</i></p> <p><b>Please note that any financial information provided in response to this question will be treated in strictest confidence.</b></p>		<p>Since EKT's only BM unit is the interconnector, its CAQCE (excl IC units) is zero, therefore EKT is only required to provide Credit Cover calculated on actual trading imbalance charges accrued over the previous 29 days. Since NETA Go-Live EKT has not accrued trading charges in any one 29 period of over [ <sup>11</sup> ]. Due to the current methodology for calculating IC energy indebtedness basing the CALF on historic data, EKT has a BMCAEC of [ <sup>11</sup> ] and a BMCAIC of [ <sup>11</sup> ] per SP. During Dec-03 EKT imported an average of [ <sup>11</sup> ] MW per SP, which according to the current calculation meant that EKT would effectively be out of balance for [ <sup>11</sup> ] MW per SP requiring extra credit cover of [ <sup>11</sup> ] for the estimated 8 days where actual data is not available.</p>
2.	<p>Please can you provide an estimation of the annual cost to your organisation of lodging Credit Cover against Trading Charges. This figure should be expressed as a percentage of the face value of the Credit Cover.  <i>Please give rationale.</i></p> <p><b>Please note that any financial information provided in response to this question will be treated in strictest confidence.</b></p>	[ <sup>11</sup> ] %	<p>This equates to the charges levied by EKT's bank to provide the letter of credit.</p>
3.	<p>Would your organisation reduce the levels of Credit Cover they have lodged were Modification Proposal P140 to be approved and implemented?  <i>Please give rationale and magnitude of any reduction.</i></p> <p><b>Please note that any financial information provided in response to this question will be treated in strictest confidence.</b></p>	Yes	<p>EKT would reduce credit cover from [ <sup>11</sup> ] to [ <sup>11</sup> ], in line with actual historic imbalance charges.</p>

<sup>11</sup> Financial data provided in response to this question removed from Assessment Report at respondent request.

<b>Q</b>	<b>Question</b>	<b>Response</b>	<b>Rationale</b>
4.	Do you agree with the SSMG's view that the benefits of P140 (outlined in Section 4 of the attached Second Consultation Document) outweigh the costs (per Section 7) sufficiently that P140 will better facilitate achievement of the Applicable BSC Objectives <i>Please give rationale and state objective(s)</i>	Yes	The benefit of tracking actual imbalances rather than estimated imbalances will avoid charges being under-estimated for counterparts who export on the IC and will also reduce the cost of trading on the IC thereby facilitating greater competition.
5.	Are there any further comments on P140 that you wish to make?	No	

**P140\_ASS\_002 – Scottish Power UK plc**

<b>Respondent:</b>	John W Russell (SAIC Ltd)
<b>No. of BSC Parties Represented</b>	6
<b>BSC Parties Represented</b>	Scottish Power UK plc; ScottishPower Energy Management Ltd.; ScottishPower Generation Ltd; ScottishPower Energy Retail Ltd.; SP Transmission Ltd; SP Manweb plc.
<b>No. of Non BSC Parties Represented</b>	0
<b>Non BSC Parties represented</b>	
<b>Role of Respondent</b>	Supplier / Generator / Trader / Consolidator / Exemptable Generator / Party Agent

<b>Q</b>	<b>Question</b>	<b>Response</b>	<b>Rationale</b>
1.	<p>How would your organisation be affected by the under-estimation of Trading Charges for Interconnector Users resulting from the current Energy Indebtedness calculation? <i>Please provide quantitative detail of the extent of this risk, if possible.</i></p> <p><b>Please note that any financial information provided in response to this question will be treated in strictest confidence.</b></p>		<p>Additional Credit Cover required can be significant where market prices in period used for Energy Indebtedness calculation are significantly lower than actual market prices. Under existing methodology, historical low market prices may result in low Interconnector utilisation and hence a low CALF value. High current market prices result in higher Interconnector utilisation and notified contract volumes but the low historical CALF value applied results in a high Energy Indebtedness value. The impact on energy Indebtedness could be as high as difference between zero and full utilisation of available Interconnector capacity.</p>
2.	<p>Please can you provide an estimation of the annual cost to your organisation of lodging Credit Cover against Trading Charges. This figure should be expressed as a percentage of the face value of the Credit Cover. <i>Please give rationale.</i></p> <p><b>Please note that any financial information provided in response to this question will be treated in strictest confidence.</b></p>	<p>[ figure provided, removed from Assessment Report at respondent request ]</p>	<p>Opportunity cost between interest paid on credit cover by Elexon and Company cost of capital.</p>

Q	Question	Response	Rationale
3.	<p>Would your organisation reduce the levels of Credit Cover they have lodged were Modification Proposal P140 to be approved and implemented?</p> <p><i>Please give rationale and magnitude of any reduction.</i></p> <p><b>Please note that any financial information provided in response to this question will be treated in strictest confidence.</b></p>	<b>Yes</b>	Potential reduction [ figure provided, removed from Assessment Report at respondent request ].
4.	<p>Do you agree with the SSMG's view that the benefits of P140 (outlined in Section 4 of the attached Second Consultation Document) outweigh the costs (per Section 7) sufficiently that P140 will better facilitate achievement of the Applicable BSC Objectives</p> <p><i>Please give rationale and state objective(s)</i></p>	<b>Yes</b>	This Modification will result in a more accurate estimate of potential balancing charges, enabling the release of excess credit cover collateral posted with Elexon. We therefore believe P140 would better facilitate Applicable BSC Objective (c) – 'Promoting effective competition.....'
5.	<p>Are there any further comments on P140 that you wish to make?</p>	<b>No</b>	

**P140\_ASS\_003 – EDF Trading Ltd and EDF (Generation)**

<b>Respondent:</b>	<i>Steve Drummond</i>
<b>No. of BSC Parties Represented</b>	2
<b>BSC Parties Represented</b>	<i>EDF Trading Ltd and EDF (Generation)</i>
<b>No. of Non BSC Parties Represented</b>	<i>None</i>
<b>Non BSC Parties represented</b>	<i>N/A</i>
<b>Role of Respondent</b>	<i>Trader/Generator</i>

<b>Q</b>	<b>Question</b>	<b>Response</b>	<b>Rationale</b>
1.	<p>How would your organisation be affected by the under-estimation of Trading Charges for Interconnector Users resulting from the current Energy Indebtedness calculation? <i>Please provide quantitative detail of the extent of this risk, if possible.</i></p> <p><b>Please note that any financial information provided in response to this question will be treated in strictest confidence.</b></p>		<p>Our view is that the amount of Credit Cover required to be posted by a Party should equate as close as possible to the risk posed by that Party on the rest of the market. At present the CEI calculation for Interconnector Users can produce some very odd results that require careful action to avoid or monitor and respond to, or it can seriously underestimate the CEI and pose a greater risk to other parties not involved in interconnector trading. Underestimation of CC is as bad as overestimation and any effort to correct miscalculations should be supported.</p>
2.	<p>Please can you provide an estimation of the annual cost to your organisation of lodging Credit Cover against Trading Charges. This figure should be expressed as a percentage of the face value of the Credit Cover. <i>Please give rationale.</i></p> <p><b>Please note that any financial information provided in response to this question will be treated in strictest confidence.</b></p>	1	<p>The amount of credit cover needed has varied considerably over the past two years, from £2m to £15m and it is kept under control at the moment and by regularly appealing the CALF values assigned to our BMUs.</p>

Q	Question	Response	Rationale
3.	<p>Would your organisation reduce the levels of Credit Cover they have lodged were Modification Proposal P140 to be approved and implemented?</p> <p><i>Please give rationale and magnitude of any reduction.</i></p> <p><b>Please note that any financial information provided in response to this question will be treated in strictest confidence.</b></p>	Yes	<p>It would be to a value that was closer to the risk posed to the market ie that it couldn't deliver to the market at times of short term within day Interconnector unavailability.</p>
4.	<p>Do you agree with the SSMG's view that the benefits of P140 (outlined in Section 4 of the attached Second Consultation Document) outweigh the costs (per Section 7) sufficiently that P140 will better facilitate achievement of the Applicable BSC Objectives</p> <p><i>Please give rationale and state objective(s)</i></p>	Yes	<p>Half the cost can probably be discounted because this mod would not be implemented as a stand alone project. Nevertheless the cost is high, but its benefit is through getting a more meaningful figure into the Credit Cover calculation. This is likely to encourage use of the interconnectors and will negate the need to regularly appeal the particular CALF calculations by IUs. Objectives C and D would be bettered.</p>
5.	<p>Are there any further comments on P140 that you wish to make?</p>	Yes	<p>Were this Mod not to go ahead, then another possibility that would help the Interconnector Users (especially those who are not portfolio parties) by calculating CALF on a different basis for those BMUs. Since the risk is correlated to the availability of the interconnector in question then use of a Load Factor that is close to that of the interconnector maybe a cheap and viable alternative. This doesn't solve the problems for all but it would help and be less costly to operate.</p>

**P140\_ASS\_004 – Aquila Networks PLC**

Good Morning,

Aquila Networks PLC would like to return a response of 'No Comment' to P140 Assessment Consultation (SECOND CONSULTATION).

Regards,

Deborah Hayward  
Distribution Support Office &  
Deregulation Control Group  
Aquila Networks plc

**P140\_ASS\_005 – British Gas Trading**

<b>Respondent:</b>	Mark Manley
<b>No. of BSC Parties Represented</b>	
<b>BSC Parties Represented</b>	British Gas Trading
<b>No. of Non BSC Parties Represented</b>	
<b>Non BSC Parties represented</b>	
<b>Role of Respondent</b>	

<b>Q</b>	<b>Question</b>	<b>Response</b>	<b>Rationale</b>
1.	<p>How would your organisation be affected by the under-estimation of Trading Charges for Interconnector Users resulting from the current Energy Indebtedness calculation? <i>Please provide quantitative detail of the extent of this risk, if possible.</i></p> <p><b>Please note that any financial information provided in response to this question will be treated in strictest confidence.</b></p>		<p>BGT would be impacted by the current calculation in the event of Party entering Level 2 Credit Default and insufficient credit cover being lodged to cover that Party's Trading Charge liability. In this scenario due to the smearing liability, BSC Party's would assume responsibility for that under recovery. In line with the funding share calculation BGT would be liable for a significant proportion of the under recovery. The effect on BGT would be dependent upon the size of the Party and the level of under recovery. In extreme circumstances i.e. a large BSC Party defaulting on their liability the scale of the short fall may not be able to be borne by BGT within our current pricing structure and may need to be passed through to customers in the form of a price increase.</p> <p>It is very difficult to quantify the risk but based on the analysis provided as part of the consultation the effect could be significant.</p>
2.	Please can you provide an	%	

Q	Question	Response	Rationale
	<p>estimation of the annual cost to your organisation of lodging Credit Cover against Trading Charges. This figure should be expressed as a percentage of the face value of the Credit Cover.</p> <p><i>Please give rationale.</i></p> <p><b>Please note that any financial information provided in response to this question will be treated in strictest confidence.</b></p>		
3.	<p>Would your organisation reduce the levels of Credit Cover they have lodged were Modification Proposal P140 to be approved and implemented?</p> <p><i>Please give rationale and magnitude of any reduction.</i></p> <p><b>Please note that any financial information provided in response to this question will be treated in strictest confidence.</b></p>	No	<p>BGT note the benefits of this modification proposal and support the proposal, as it will more accurately reflect Interconnector Users' energy indebtedness. Interconnector Users may be part of a larger organisation and have other credit risks from Supplier or Generator related activities. Therefore this modification would mean that the benefits of more accurately representing the credit position for the Interconnector would feed through into the Portfolio position. The risks of entering Level 2 Credit Default, which could be financial, or PR related are significant. In view of the size of those risks and the relatively small scale of benefits that BGT could accrue from reducing its credit cover, BGT would not at this point be looking to reduce the levels of credit cover lodged.</p> <p>Despite BGT's intention not to reduce the level of credit cover lodged BGT still believe this modification significantly improves the current baseline. BGT believes the perceived benefit of Party's being able to reduce the amount of credit cover lodged is a bit of a 'red herring'. BGT believe the main benefit derived from this proposal is via Party's energy indebtedness being more accurately represented. Based on the analysis undertaken by BSCCo the proposed methodology calculates energy indebtedness much more accurately. BGT believes it is essential that BSC Party's energy indebtedness is represented as accurately as possible so it reduces the likelihood and more importantly the potential level of bad debt.</p>
4.	Do you agree with the SSMG's view that the benefits of P140 (outlined	Yes	BGT stated its support for this modification proposal during the first assessment

Q	Question	Response	Rationale
	in Section 4 of the attached Second Consultation Document) outweigh the costs (per Section 7) sufficiently that P140 will better facilitate achievement of the Applicable BSC Objectives <i>Please give rationale and state objective(s)</i>		consultation and BGT continues to support this proposal. Whilst noting the implementation costs, the level of inaccuracies between the current and the proposed methodology illustrates the potential for a bad debt to mask a Party's energy indebtedness. The effect of a bad debt and the way that would be smeared amongst BSC Party's could distort competition. Therefore any improvements in the calculation will reduce that distortion and thereby better facilitate competition in the generation and supply of electricity.
5.	Are there any further comments on P140 that you wish to make?	No	No

### P140\_ASS\_006 – National Grid

<b>Respondent:</b>	Name National Grid
<b>No. of BSC Parties Represented</b>	One
<b>BSC Parties Represented</b>	<i>Please list all BSC Parties responding on behalf of (including the respondent company if relevant).</i>
<b>No. of Non BSC Parties Represented</b>	None
<b>Non BSC Parties represented</b>	<i>Please list all non BSC Parties responding on behalf of (including the respondent company if relevant).</i> None
<b>Role of Respondent</b>	<i>(Supplier/Generator/ Trader / Consolidator / Exemptable Generator / BSC Agent / Party Agent / other – please state)</i> BSC Party

Q	Question	Response	Rationale
1.	How would your organisation be affected by the under-estimation of Trading Charges for Interconnector Users resulting from the current Energy Indebtedness calculation? <i>Please provide quantitative detail of the extent of this risk, if possible.</i> <b>Please note that any financial information provided in response to this question will be treated in strictest confidence.</b>		Underestimation of Trading Charges would not adversely affect the IEA except to the extent that if the Company (ies) were to go into default then the cost would be passed to all Market Participants. We would not expect however such charges to be onerous, given that the exposure would be limited to the difference between the actual and the estimated subject to a maximum limited by the physical flow.

Q	Question	Response	Rationale
2.	<p>Please can you provide an estimation of the annual cost to your organisation of lodging Credit Cover against Trading Charges. This figure should be expressed as a percentage of the face value of the Credit Cover.</p> <p><i>Please give rationale.</i></p> <p><b>Please note that any financial information provided in response to this question will be treated in strictest confidence.</b></p>	%	Low annual cost to the organisation in percentage terms.
3.	<p>Would your organisation reduce the levels of Credit Cover they have lodged were Modification Proposal P140 to be approved and implemented?</p> <p><i>Please give rationale and magnitude of any reduction.</i></p> <p><b>Please note that any financial information provided in response to this question will be treated in strictest confidence.</b></p>	No	The credit cover provisions that we make relate to our activities as Interconnector Error Administrator only. Our credit cover position is based on the management of the sum of deemed metered volumes against the actual deemed metered volumes and we manage the flow around these levels. On this basis it is unlikely that we would modify our level credit cover as a direct result of any changes brought forward by this modification.
4.	<p>Do you agree with the SSMG's view that the benefits of P140 (outlined in Section 4 of the attached Second Consultation Document) outweigh the costs (per Section 7) sufficiently that P140 will better facilitate achievement of the Applicable BSC Objectives</p> <p><i>Please give rationale and state objective(s)</i></p>		We believe that the intent of the modification provides a more accurate solution for Interconnector Users, as it utilises latest available information as the basis for credit calculation rather than an estimation approach. As a result the costs for Interconnector Users are reduced and we believe that the incidence of default for this group of Parties would also be reduced. However we support the views expressed by the Panel that the implementation costs are significant and suggest that further consideration needs to be given to alternative options for implementation. Additionally it must be beholden upon Market Participants to quantify the benefits associated with this modification and hence justify its implementation. A number of issues were raised in the impact assessment that need to be resolved (as outlined below) and that could assist with providing a reduced cost implementation option.

Q	Question	Response	Rationale
5.	Are there any further comments on P140 that you wish to make?	Yes	<p>The proposed solution for P140 is based on a requirement for National Grid to produce and submit a separate data file containing Interconnector BMU FPNs pre-Gate Closure. However, as PN data only becomes finalised at Gate Closure we do not believe we can satisfy this requirement. If this solution is adopted any supporting legal text will need to acknowledge the fact that this data is more correctly "latest available PN data" rather than FPN. We understand that Elexon are considering this issue. We believe that there is a risk that any PN data provided pre-Gate Closure may subsequently be revised after our submission to ECVA and result in incorrect credit calculations.</p> <p>FPN data is already available within an existing report provided by National Grid to the BMRA. Whilst this information is provided on a timescale not later than 15 minutes following Gate Closure, we believe that this is suitable to meet the requirements of the credit checking calculation. Utilising the existing flow would avoid unnecessary development work and the associated timescales and complexity could be avoided. Additionally this approach would ensure that the finalised ie. Gate Closure PN was provided and there was no risk of credit calculations being undertaken using incorrect data. We believe that the use of data from an existing information flow could offer a reduced cost solution and address some of the concerns on the cost benefit of the modification.</p> <p>We have already identified that we would require a period of at least six months notice in order to implement the proposed changes required for this modification based on the development and provision of a separate file solution. We would like to add that against the background of commitments on other modifications and our planned systems releases we would be unable to implement this change for the November '04 BSC Systems Release.</p>

### P140\_ASS\_007 – Powergen

<b>Respondent:</b>	Powergen
<b>No. of BSC Parties Represented</b>	14
<b>BSC Parties Represented</b>	Powergen UK plc, Powergen Retail Limited, Cottam Development Centre Limited, TXU Europe Drakelow Limited, TXU Europe Ironbridge Limited, TXU Europe High Marnham Limited, Midlands Gas Limited, Western Gas Limited, TXU Europe

	(AHG) Limited, TXU Europe (AH Online) Limited, Citigen (London) Limited, Severn Trent Energy Limited (known as TXU Europe (AHST) Limited), TXU Europe (AHGD) Limited and Ownlabel Energy Limited
<b>No. of Non BSC Parties Represented</b>	-
<b>Non BSC Parties represented</b>	-
<b>Role of Respondent</b>	Supplier, Generator, Trader & Exemptable Generator.

Q	Question	Response	Rationale
1.	<p>How would your organisation be affected by the under-estimation of Trading Charges for Interconnector Users resulting from the current Energy Indebtedness calculation? <i>Please provide quantitative detail of the extent of this risk, if possible.</i></p> <p><b>Please note that any financial information provided in response to this question will be treated in strictest confidence.</b></p>		We would be less exposed to the potential risk of an interconnector Party defaulting for a period when its trading charges had been significantly underestimated by the present methodology.
2.	<p>Please can you provide an estimation of the annual cost to your organisation of lodging Credit Cover against Trading Charges. This figure should be expressed as a percentage of the face value of the Credit Cover. <i>Please give rationale.</i></p> <p><b>Please note that any financial information provided in response to this question will be treated in strictest confidence.</b></p>	%	The answer to this question depends on the particular method, or combination of methods, a Party is using to provide credit cover. Providing cash will incur that Party's cost of capital, whilst letters of credit generally cost around 1% of the face value of the credit cover <sup>12</sup> .
3.	<p>Would your organisation reduce the levels of Credit Cover they have lodged were Modification Proposal P140 to be approved and implemented? <i>Please give rationale and magnitude of any reduction.</i></p> <p><b>Please note that any financial information provided in response to this question will be treated in strictest confidence.</b></p>	No	The consultation appears to suggest that interconnector Parties would on average be required to increase the amount of credit cover held, as the present arrangements appear to underestimate interconnector trading charges. We do not think that it will considerably alter our credit cover levels.

<sup>12</sup> Respondent indicates that this is a general estimate of industry cost of Credit Cover and should not be taken as party specific.

Q	Question	Response	Rationale
4.	Do you agree with the SSMG's view that the benefits of P140 (outlined in Section 4 of the attached Second Consultation Document) outweigh the costs (per Section 7) sufficiently that P140 will better facilitate achievement of the Applicable BSC Objectives <i>Please give rationale and state objective(s)</i>	Yes	On balance we would agree, although the quoted costs do appear to be high.
5.	Are there any further comments on P140 that you wish to make?	No	

### **P140\_ASS\_008 – Scottish and Southern Energy**

Dear Sirs,

This response is sent on behalf of Scottish and Southern Energy, Southern Electric, Keadby Generation Ltd., Medway Power Ltd., and SSE Energy Supply Ltd.

In relation to the five questions contained within your note of 6th January 2004, and the associated Modification Report for P140, we have the following comments to make (subject to all the financial information we have provided in response to questions 1, 2 and 3 being treated in strictest confidence):-

Q1 How would your organisation be affected by the under-estimation of Trading Charges for Interconnector Users resulting from the current Energy Indebtedness calculation? Please provide quantitative detail of the extent of this risk, if possible. Please note that any financial information provided in response to this question will be treated in strictest confidence.

We believe we would be adversely affected should a Party get into credit difficulty and other market participants are required to provide funding in accordance with their Default Shares.

Q2 Please can you provide an estimation of the annual cost to your organisation of lodging Credit Cover against Trading Charges. This figure should be expressed as a percentage of the face value of the Credit Cover. Please give rationale. Please note that any financial information provided in response to this question will be treated in strictest confidence.

[ figure provided, removed from Assessment Report and headline figures in Section 6 of this document at respondent request ].

Q3 Would your organisation reduce the levels of Credit Cover they have lodged were Modification Proposal P140 to be approved and implemented? Please give rationale and magnitude of any reduction. Please note that any financial information provided in response to this question will be treated in strictest confidence.

On balance, if P140 were approved, we believe it is likely to lead to a reduction in the levels of credit cover lodged.

Q4 Do you agree with the SSMG's view that the benefits of P140 (outlined in Section 4 of the attached Second Consultation Document) outweigh the costs (per Section 7) sufficiently that P140 will better facilitate achievement of the Applicable BSC Objectives Please give rationale and state objective(s)

On balance we do not believe that the benefits of P140 would outweigh the implementation costs.

**Q5** Are there any further comments on P140 that you wish to make?

We are concerned at the comments in the last paragraph in section 1 "Introduction" of the consultation document. Whilst we endorse the principle of reducing the amount of 'repeat' information contained in documentation associated with Modifications sent out, we believe there is a responsibility on Elexon (where this approach is followed) to facilitate the availability of this 'repeat' information documentation to all BSC Parties; i.e. those unable to participate in the Modification Group meetings etc.

In particular, we believe that were there is a list of "Related Documents" (as listed in Annex II of this consultation document) then copies of these related documents should either be placed on the Elexon website (within the specific page relating to the Modification in question) or a website address be provided to allow BSC parties to easily find the documentation. Otherwise this approach of referring to (but not making easily available to all BSC Parties) related documentation should be curtailed.

Regards

Garth Graham  
Scottish and Southern Energy plc

**P140\_ASS\_009 – British Energy Power & Energy Trading Ltd**

<b>Respondent:</b>	<i>Martin Mate</i>
<b>No. of BSC Parties Represented</b>	<i>3</i>
<b>BSC Parties Represented</b>	<i>British Energy Power &amp; Energy Trading Ltd, British Energy Generation Ltd, Eggborough Power Ltd</i>
<b>No. of Non BSC Parties Represented</b>	<i>-</i>
<b>Non BSC Parties represented</b>	<i>-</i>
<b>Role of Respondent</b>	<i>Supplier/Generator/Trader/Consolidator/Exemptable Generator/Party Agent</i>

<b>Q</b>	<b>Question</b>	<b>Response</b>	<b>Rationale</b>
1.	<p>How would your organisation be affected by the under-estimation of Trading Charges for Interconnector Users resulting from the current Energy Indebtedness calculation? <i>Please provide quantitative detail of the extent of this risk, if possible.</i></p> <p><b>Please note that any financial information provided in response to this question will be treated in strictest confidence.</b></p>		<p>Impact on British Energy:</p> <p>(a) The BSC may not provide warning that a Party which is an interconnector user is trading while unable to pay its debts; and</p> <p>(b) BE would be required to fund a market share (about 13%) of any unpaid BSC charges in the event that a Party which is an interconnector user fails to pay its trading charges. This is in addition to the bilateral risk associated with trading with a party using the interconnector.</p> <p>BE is not using it's Interconnector BM Units in a significant way, so is not currently directly affected by the related credit requirements.</p>

Q	Question	Response	Rationale
2.	<p>Please can you provide an estimation of the annual cost to your organisation of lodging Credit Cover against Trading Charges. This figure should be expressed as a percentage of the face value of the Credit Cover.</p> <p><i>Please give rationale.</i></p> <p><b>Please note that any financial information provided in response to this question will be treated in strictest confidence.</b></p>	%	Not directly relevant.
3.	<p>Would your organisation reduce the levels of Credit Cover they have lodged were Modification Proposal P140 to be approved and implemented?</p> <p><i>Please give rationale and magnitude of any reduction.</i></p> <p><b>Please note that any financial information provided in response to this question will be treated in strictest confidence.</b></p>	No	Not applicable.

Q	Question	Response	Rationale
4.	<p>Do you agree with the SSMG's view that the benefits of P140 (outlined in Section 4 of the attached Second Consultation Document) outweigh the costs (per Section 7) sufficiently that P140 will better facilitate achievement of the Applicable BSC Objectives</p> <p><i>Please give rationale and state objective(s)</i></p>	No	<p>We suspect that most interconnector users have access to credit at a cost no more than 5%, with most large players having access to much lower rates, say 1%. The maximum recent over-provision of credit, for a short period, is indicated to be £6.2m. Eliminating this over-provision would save <b>at most</b> between £62k and £300k/annum for those providing it. Most parties using the interconnector are active in other areas of the market, where the credit indebtedness provisions are also approximate, and probably choose to post sufficient credit in a consolidated form to avoid credit defaults arising from shortcomings of the credit calculations overall. Over-provision for interconnector BM Units is capable of covering other parts of a party's portfolio. We do not consider the level of real saving justifies the cost, which could be in excess of £1m. BSC Objective (d) (cost efficiency) is not met.</p> <p>Additionally, it should be noted that the credit indebtedness calculation is approximate for all parties, and probably results in under or over provision in many cases. Improving the approximation just for interconnectors can be considered not to meet BSC Objective (c), because it discriminates in favour of interconnectors. A proposal which improves the accuracy of the credit indebtedness calculation for all parties might be more successful in meeting both BSC objectives (b) and (c).</p>

Q	Question	Response	Rationale
5.	Are there any further comments on P140 that you wish to make?	Yes	<p>It is disappointing that the costs appear to have escalated so dramatically since the first consultation in November 2003. Costs could exceed £1m, whereas a figure nearer £250k was indicated at the initial consultation. Why have the costs been estimated as part of a stand-alone release? Would they be less as part of a timetabled major release?</p> <p>The proposal has considerable merit in improving the accuracy of routine credit calculations for interconnectors, but should not be restricted just to interconnector BM Units. PN is probably a better estimate of metering than GC/DC/CALF for most BM Units which provide PN. Those which do not provide PN, or routinely provide inaccurate PN, could be excluded by use of a software flag. Note that the BSC quantity "Period Expected Metered Volume, QME" (PN + accepted bid/offers) would be a better measure than PN, and software should be readily available to determine it in near real time.</p> <p>A proposal with more merit would allow real or estimated meter data for all BM Units to be transferred to the credit calculation at a much earlier stage, with default data for missing values set so as to incentivise early provision of meter data. Use of PN data could be a fallback, with GC/DC/CALF for BM Units which for some reason cannot have real metering collected or estimated quickly and/or do not submit PN. Unfortunately, extrapolation of the cost estimate for P140 suggests that such a modification is unlikely to be cost-benefit justified.</p> <p>It is a concern that current methods of estimating Interconnector BM Unit energy may at times be producing a significant underestimate of relevant parties actual credit indebtedness. Our comments above relating to more wide-ranging improvements to the credit indebtedness estimation method apply equally to this effect.</p>

## ANNEX 5 TRANSMISSION COMPANY ANALYSIS

1. What impact, if any, will the Modification have on your organisation?

- The proposed solution for this modification impacts on our systems and processes. The solution identifies a requirement on the Transmission Company to produce and submit a separate data file containing Interconnector BMU FPNs.

2. What implementation timescale, if applicable, would your organisation require to implement the changes associated with the Modification?

- We would require a period of at least six months notice in order to implement the proposed changes required for this modification. This implementation timescale would be subject to review against the background of commitments on other modifications and our planned systems releases.
- The requirements specification proposes the submission of a new file containing Interconnector BMU FPN data. However, we would suggest that although Interconnector PN data is currently submitted by 1pm on the day ahead this data only becomes finalised at Gate Closure. In addition this data is already available within an existing report provided by National Grid to the BMRA. Whilst this information is provided on a timescale not later than 15 minutes following Gate Closure, if this was deemed suitable to meet the requirements of the credit checking calculation, additional development work and the associated timescales could be avoided. Additionally this approach would ensure that the finalised ie. Gate Closure PN was provided.

3. What costs, if any, would your organisation incur to implement the changes associated with the Modification?

- Working on the basis of the provision of a new separate data file, we would estimate a cost of approximately £46k to carry out the necessary work to introduce this change.

4. If the Modification is not applicable to your organisation, please indicate why (e.g. proposed methodology change will not apply to Parties whose portfolio does not contain Interconnector BM Units).

- N/A

5. Any other comments:

- N/A

<b>Q</b>	<b>Question</b>	<b>Response</b>
1	Please outline any impact of the Proposed Modification (and, if applicable, any Alternative Modification) on the ability of the Transmission Company to discharge its obligations efficiently under the Transmission Licence and on its ability to operate an efficient, economical and co-ordinated transmission system.	No impact has been identified resulting from this modification proposal on the ability of the Transmission Company to discharge its obligations under the Transmission Licence.
2	Please outline the views and rationale of the Transmission Company as to whether the Proposed Modification (and, if applicable, any Alternative Modification) would better facilitate achievement of the Applicable BSC Objectives.	We agree that the Modification proposal meets applicable objective c) in promoting effective competition in the generation and supply of electricity as it removes an unfair financial burden currently impacting on interconnected parties in meeting credit cover obligations.
3	Please outline the impact of the Proposed Modification (and, if applicable, any Alternative Modification) on the computer systems and processes of the Transmission Company, including details of any changes to such systems and processes that would be required as a result of the implementation of the Proposed Modification (and, if applicable, any Alternative Modification)	One of the proposed implementation options places a requirement on the Transmission Company to develop and submit a new data file. If this option is chosen our systems and processes will need to be updated to provide for and acknowledge this requirement. We believe that there is a more efficient approach to the submission of this data as outlined in our response to the detailed level impact assessment.
4	Please provide an estimate of the development, capital and operating costs (broken down in reasonable detail) which the Transmission Company anticipates that it would incur in, and as a result of,	If the implementation option outlined above is chosen we have estimated that we will incur development costs of £46k. Under this option we would also incur a small element of additional operating cost in providing the file to the ECVAA on

	implementing the Proposed Modification (and, if applicable, any Alternative Modification).	an ongoing basis. Additionally see response to question 3 above.
5	Please provide details of any consequential changes to Core Industry Documents that would be required as a result of the implementation of the Proposed Modification (and, if applicable, any Alternative Modification).	None identified.
6	Any other comments on the Proposed Modification (and Alternative Modification if applicable).	No comments.

## ANNEX 6 BSC AGENT IMPACT ASSESSMENTS

Please see the attached document entitled P140 DLIA Change Form v0.3

## ANNEX 7 PARTY IMPACT ASSESSMENTS

Organisation	Comments
<b>John Russell</b> Scottish Power	<p><b>What impact, if any, will the Modification have on your organisation?</b> This Modification will result in a more accurate estimate of potential balancing charges, enabling the release of excess credit cover collateral posted with Elexon. To take account of the proposed changes, ScottishPower will require to amend their credit cover checking and estimating systems.</p> <p><b>What implementation timescale, if applicable, would your organisation require to implement the changes associated with the Modification?</b> A minimum of 3 months will be required.</p> <p><b>What costs, if any, would your organisation incur to implement the changes associated with the Modification?</b> Costs incurred will be minimal (approx. £12k) compared to the opportunity cost of collateral locked up at Elexon.</p> <p><b>If the Modification is not applicable to your organisation, please indicate why (e.g. proposed methodology change will not apply to Parties whose portfolio does not contain Interconnector BM Units).</b> As stated above; the Modification is applicable.</p> <p><b>Any other comments:</b> Could this be extended to all Production BMUs? as the same problem with historical CALF values vs. current trading patterns applies to generating units. FPN submitted represents Party's best estimate of BMU output and is near to real time. Production account imbalances, like interconnector imbalances, only tend to occur due to technical failure.</p>
<b>Dave Morton</b> EDF Energy, Supplier Response	<p><b>What impact, if any, will the Modification have on your organisation?</b> Requires system changes.</p> <p><b>What implementation timescale, if applicable, would your organisation require to implement the changes associated with the Modification?</b> Would require at least 3 months lead time.</p> <p><b>What costs, if any, would your organisation incur to implement the changes associated with the Modification?</b> Approximately £8,000.</p>
<b>Rachael Gardener</b> Aquila Networks	No impact.
<b>Saeed Patel</b> EDF Trading Limited	<p><b>What impact, if any, will the modification have on EDFT and EDFGEN01?</b></p> <p>System enhancements will need to be undertaken for the capture and display of the ECVA-1014 Daily Notification report for BMU Id's EDFT and EDFGEN01.</p>

	<p>The system enhancements will need to include the new amended flow for Interconnector BMU's for the Credit Assessment Credit Credited Energy Volume (MWh) (CAQCE<sub>pj</sub>).</p> <p>Internal processes and procedures for the monitoring and forecasting of Credit Cover position will require amending as a result of the modification.</p> <p><b>What implementation timescale, if applicable, would EDFT require to implement the changes associated with the modifications?</b></p> <p>After evaluating the change requirements document we have estimated 6 weeks notice for implementation. The timescales provide sufficient time for the development, testing and user acceptance of the changes made to the notification system and internal procedures and processes.</p> <p><b>What costs, if any, would EDFT incur to implement the changes associated with the modifications?</b></p> <p>We estimate the cost of implementing the change amounts to £15k to £20k. However, we believe the cost of the solution is likely to be offset by a reduction in Credit Cover requirements through a more realistic and accurate calculation of Credit Cover for Interconnector BMU units.</p>
<p><b>Claire Talbot</b> NGC</p>	<p><b>What impact, if any, will the Modification have on your organisation?</b></p> <p>The proposed solution for this modification impacts on our systems and processes. The solution identifies a requirement on the Transmission Company to produce and submit a separate data file containing Interconnector BMU FPNs.</p> <p><b>What implementation timescale, if applicable, would your organisation require to implement the changes associated with the Modification?</b></p> <p>We would require a period of at least six months notice in order to implement the proposed changes required for this modification. This implementation timescale would be subject to review against the background of commitments on other modifications and our planned systems releases.</p> <p>The requirements specification proposes the submission of a new file containing Interconnector BMU FPN data. However, we would suggest that although Interconnector PN data is currently submitted by 1pm on the day ahead this data only becomes finalised at Gate Closure. In addition this data is already available within an existing report provided by National Grid to the BMRA. Whilst this information is provided on a timescale not later than 15 minutes following Gate Closure, if this was deemed suitable to meet the requirements of the credit checking calculation, additional development work and the associated timescales could be avoided. Additionally this approach would ensure that the finalised ie. Gate Closure PN was provided.</p> <p><b>What costs, if any, would your organisation incur to implement the changes associated with the Modification?</b></p> <p>Working on the basis of the provision of a new separate data file, we would estimate a cost of approximately £46k to carry out the necessary work to introduce this change.</p>

## ANNEX 8 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:

<b>PROGRESSING MODIFICATION PROCEDURES</b>	
<b>Demand Led Cost</b>	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.
<b>ELEXON Resource</b>	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 Procedures.

<b>SERVICE PROVIDER<sup>13</sup> COSTS</b>	
<b>Change Specific Cost</b>	Cost of the Service Provider(s) Systems development and other activities relating specifically to the Modification Proposal.
<b>Release Cost</b>	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.
<b>Incremental Release Cost</b>	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.

<b>IMPLEMENTATION COSTS</b>	
<b>External Audit</b>	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

<sup>13</sup> 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.
<b>Design Clarifications</b>	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%.
<b>Additional Resource Costs</b>	<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>
<b>Additional Testing and Audit Support Costs</b>	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 at 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**

<b>ELEXON Operational Cost</b>	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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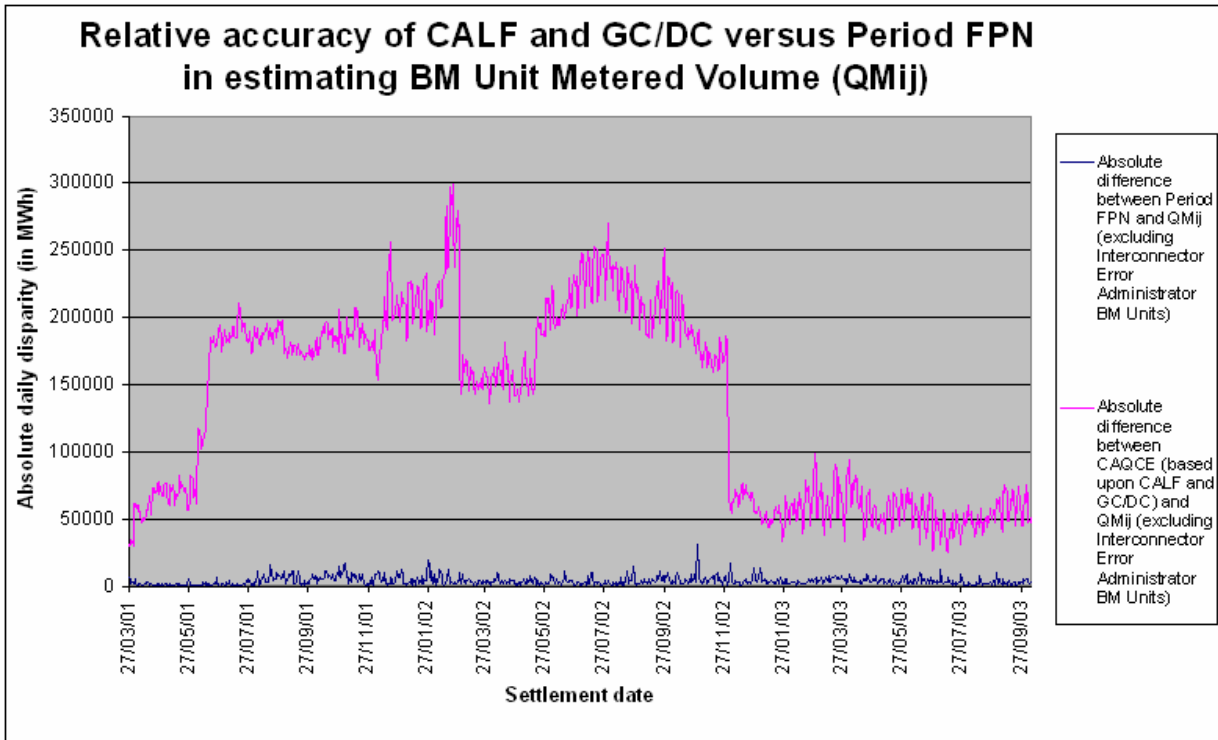
<b>Service Provider Operation Cost</b>	Cost in £ per annum payable to the Service Provider(s) to cover staffing requirements, software or hardware licensing fees, communications charges or any hardware storage fees associated with the ongoing operation of the revised systems and processes.
<b>Service Provider Maintenance Cost</b>	Cost quoted in £ per annum payable to the Service Provider(s) to cover the maintenance of the amended BSC Systems.

## ANNEX 9 TERMS OF REFERENCE

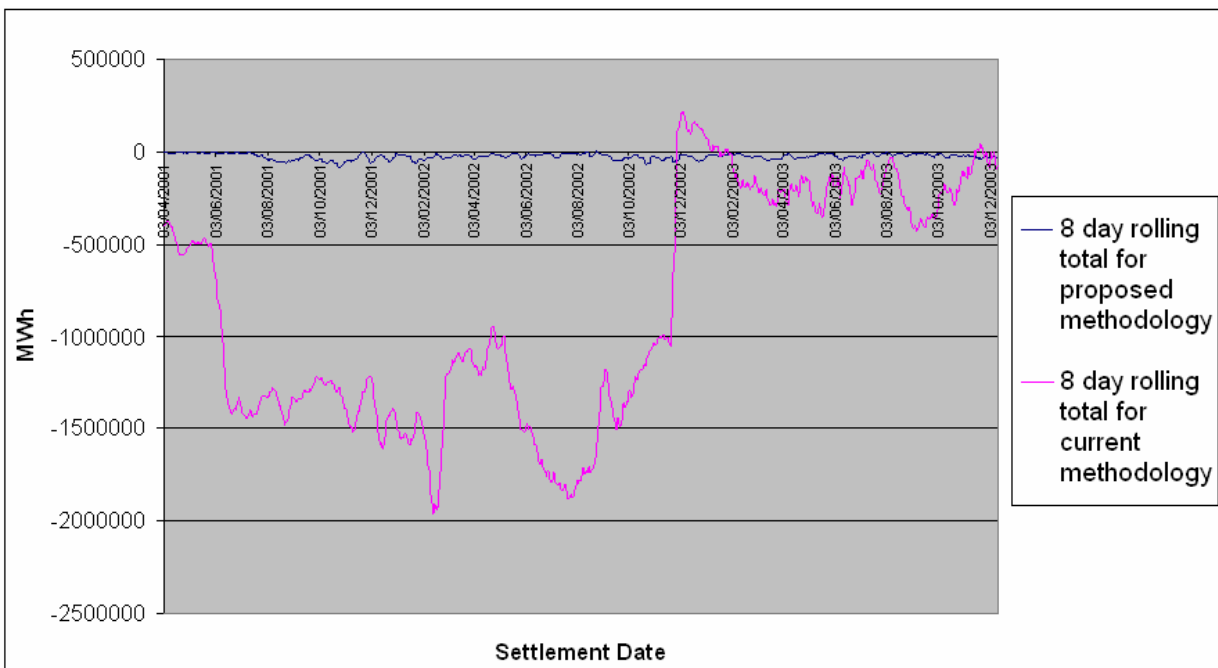
- the need to determine the impact upon the systems and processes used by the BSC Agent Systems (in particular ECVAA and CRA);
- the need to determine the impact upon the timing and performance of the calculation of Credit Cover Percentage (CCP) carried out for each Settlement Period by the ECVAA;
- the need to determine whether or not FPNs are a good proxy for Deemed Metered Volumes historically (as submitted by the Interconnector Administrator to SAA after the event);
- if FPNs are determined to have been a good proxy for Deemed Metered Volumes historically, there will be a need to determine whether controls are in place to ensure that this continues to be the case in future;
- whether there will be difficulties calculating CCP during periods of Interconnector outages and any possible solutions to this (if required);
- the need to determine the impact upon the systems and processes used by BSCCo for maintaining and monitoring current components of the CEI calculation; and
- whether the Modification Proposal is unduly discriminatory against other classes of Party.

### ANNEX 10 DATA CHARTS

**Figure 6: Relative accuracies of the current and proposed methodologies in predicting  $QM_{ij}$  for Interconnector BM Units since NETA go-live**



**Figure 7: 8 day total MWh deviation between current and proposed methodologies and actual BM Unit Metered Volumes since NETA Go-live.**



**Figure 8: 8 day total estimated outstanding Trading Charges for Interconnector Users, based upon CEI estimated imbalance multiplied by the CAP, for both current and proposed methodologies since NETA Go-live.**

