P202 Impact Assessment Reponses

1. **BSC Agent Impact Assessment – Full Solution**
2. **BSC Agent Impact Assessment - Workaround**
3. **Party Impact Assessment Reponses**
4. **Transmission Company Analysis**

NETA Change Form

Title		Version No.
P201 'Energy Imbalance Tolerance Band' or P202 'Energy Imbalance Incentive Band'		0.2
		LogicaCMG Reference
		ICR749
ELEXON Reference	**Date CP Received**	**Date IA Issued**
P201 or P202	19-Jul-2006	25-Jul-2006
LogicaCMG Contact Name	**Baseline for Impact Assessment**	
Martin Godden	P201/P202 Requirement Specification dated 18th July 2006 v3.0 [P20IAS]	

Price Breakdown

Item description	Remarks	Price (ex VAT)
Change Specific	Proposed Full Solution - Option 1	£ 139,247
	Option 2	£ 163,166
	Option 3	£ 176,178
	Alternative Full Solution	
	(Small Suppliers) – Option 2	£ 174,101
	Option 3	£ 189,483
	(All Parties) – Option 1	£ 143,880
	Option 2	£ 168,637
	Option 3	£ 182,485
	Optional Functionality	
	Non-Delivery Option 1	£ 24,494
	Non-Delivery Option 2	£ 24,494
	BMRA Reporting	£ 55,843

Release Costs	Proposed Full Solution - Option 1	£ 195,869
	Option 2	£ 195,869
	Option 3	£ 195,869
	Alternative Full Solution	
	(Small Suppliers) – Option 2	£ 195,869
	Option 3	£ 195,869
	(All Parties) – Option 1	£ 195,869
	Option 2	£ 195,869
	Option 3	£ 195,869
	Optional Functionality	
	Non-Delivery Option 1	£ 0
	Non-Delivery Option 2	£ 0
	BMRA Reporting	£ 0

Total Price **(ex VAT)**	**Proposed Full Solution -**	
	Option 1	**£ 335,116**
	Option 2	**£ 359,035**
	Option 3	**£ 372,047**
	Alternative Full Solution	
	(Small Suppliers) – Option 2	**£ 369,970**
	Option 3	**£ 385,352**
	(All Parties) – Option 1	**£ 339,749**
	Option 2	**£ 364,505**
	Option 3	**£ 378,354**
	Optional Functionality	
	Non-Delivery Option 1	**£ 24,494**
	Non-Delivery Option 2	**£ 24,494**
	BMRA Reporting	**£ 60,310**

Price Tolerance	0%
Justification for Price Tolerance	
N/A	

Project Duration	**Proposed Full Solution -** **Option 1** **Option 2** **Option 3** **Alternative Full Solution** **(Small Suppliers) – Option 2** **Option 3** **(All Parties) – Option 1** **Option 2** **Option 3** **Optional Functionality** **Non-Delivery Option 1** **Non-Delivery Option 2** **BMRA Reporting**	26 weeks 26 weeks 26 weeks 26 weeks 26 weeks 26 weeks 26 weeks 26 weeks 3 weeks *Will be absorbed* 3 weeks *into the* 6 weeks *26 weeks above*
Cut Off Date for Inclusion in Specified Release (if applicable)		
N/A		

Operational Price per period (ex VAT)		£0
Rationale		
N/A		

Annual Maintenance Price (ex VAT)	£0
Rationale	
The Annual Maintenance Price is zero under the agreement commencing on 1 January 2005.	

Validity Constraints	
Price and duration assume that this change is developed in isolation and the effects of other changes are excluded. No allowance is included for the final solution being different from the baseline. No allowance is included for supporting Release Audit activities. Any effort will be charged at contracted T&M rates No allowance is included for supporting ELEXON assurance activities. Any effort will be charged at contracted T&M rates No allowance is included for End to End/Participant Testing activities. Any effort will be charged at contracted T&M rates No allowance is included for Walkthrough activities. Any effort will be charged at contracted T&M rates No allowance is included to support ELEXON in parallel run testing activities The validity period for this assessment is 30 days and is based on the following payment schedule: LogicaCMG will invoice 30% on receipt of Purchase Order or authorised start of work, 30% on completion of first build phase, 30% on live implementation and 10% on successful completion of the Success Criteria or one month after live implementation, whichever is sooner	
Authorised Signature	**Date Signed**

Requirements and Solution
Brief Summary of Change
Proposed Modifications P201 and P202 introduce a tolerance band for the application of Imbalance Charges to Supplier Consumption Energy Accounts in varying circumstances. This impact assessment considers a number of options; Proposed Full, Alternative Full and Optional Functionality Solutions for both modifications P201 or P202. These are listed below: **Proposed Full Solution** **Proposed Solution Option 1 Baselined as:** 2.1 Identify and Register Qualifying Parties 2.1 Option 1: BSCCo Maintain Trading Party Grouping 2.6 Option 1: BSCCo Maintain Trading Party Grouping **Proposed Solution Option 2 Baselined as:** 2.1 Identify and Register Qualifying Parties 2.1 Option 2: Central Systems Maintain Trading Party Grouping, SAA report 2.6 Option 2: Central Systems Maintain Trading Party Grouping, SAA report **Proposed Solution Option 3 Baselined as:** 2.1 Identify and Register Qualifying Parties 2.1 Option 3: Central Systems Maintain Trading Party Grouping, SAA and CRA report 2.6 Option 3: Central Systems Maintain Trading Party Grouping, SAA and CRA report **Alternative Full Solution** **Alternative Solution 4.1 (Small Suppliers) Option 2 Baselined as:** 4.1.1 Identify and Register Qualifying Energy Accounts 4.1.1 Option 2: Central Systems Maintain Trading Party Grouping, SAA report 4.1.2 Option 2: Central Systems Maintain Trading Party Grouping, SAA report **Alternative Solution 4.1 (Small Suppliers) Option 3 Baselined as:** 4.1.1 Identify and Register Qualifying Energy Accounts 4.1.1 Option 3: Central Systems Maintain Trading Party Grouping, SAA and CRA report 4.1.2 Option 3: Central Systems Maintain Trading Party Grouping, SAA and CRA report **Alternative Solution 4.2 (All Parties) Option 1 Baselined as:** 4.2.1 Identify and Register Qualifying Energy Accounts 2.1 Option 1: BSCCo Maintain Trading Party Grouping 2.6 Option 1: BSCCo Maintain Trading Party Grouping **Alternative Solution 4.2 (All Parties) Option 2 Baselined as:**

4.2.1 Identify and Register Qualifying Energy Accounts

2.1 Option 2: Central Systems Maintain Trading Party Grouping, SAA report

2.6 Option 2: Central Systems Maintain Trading Party Grouping, SAA report

Alternative Solution 4.2 (All Parties) Option 3 Baselined as:
4.2.1 Identify and Register Qualifying Energy Accounts

2.1 Option 3: Central Systems Maintain Trading Party Grouping, SAA and CRA report

2.6 Option 3: Central Systems Maintain Trading Party Grouping, SAA and CRA report

Optional Functionality

Non-Delivery Option 1 Baselined as:
Appendix 2: Option 1

Non-Delivery Option 2 Baselined as:
Appendix 2: Option 2

BMRA Reporting :
Report Settlement Period level data by BMRA

LogicaCMG's Proposed Solution

There is no differentiation in terms of costs as to whether P201 or P202 is considered thus only a single set of effort and costs estimates has been provided covering both modifications.

Proposed Solution Option 1:

CRA

Modify the Maintain Participant Screen to allow a P201/P202 Qualification flag to be held against the participant's BP role record. This will allow us to specify effective dates for the flag value through the BP role's effective dates. The flag is set based on manual flow from BSCCo Ltd. CRA will report this new registration data to SAA.

SAA

Add new system dated parameters: Tolerance Band Volume (QTB) and Tolerance Price Differential (TPD). Modify the Settlement Calculation F011 function (Calculate Energy Imbalance Cashflows) to change the way the cashflow is calculated, using the new registration data and system parameters to support this. Store the new reporting values in database. Modify the SAA-I014 to include new fields (create a new DTC version of flow).

Proposed Solution Option 2:

CRA

In addition to Option 1:

Create a new table to hold Trading Party Groups (TPG) - an ID and a Description. Create a new user interface screen: Maintain Trading Party Groups to allow operators to manage this data. Extend changes to Maintain Participant Screen so as to allow a TPG ID to be held against a participant BP role record along with the Qualification flag. The role's effective dates can therefore also be used to define the effective date of a party's relationship with a particular TPG. This association will report this data to SAA.

SAA

This modification is specified in Proposed Solution Option 1: SAA.

Proposed Solution Option 3:

CRA

In addition to Proposed Solution Option 2:

Modify the CRA-I014 to include details of each participant's Trading Party Group associations.

SAA

This modification is specified in Proposed Solution Option 1: SAA.

The **Alternative Solution (Small Suppliers)** details no Option 1 as this is not sufficient for this alternative. However Options 2 and 3 have additional functionality to CRA and SAA as detailed below:

Alternative Solution (Small Suppliers) Option 2 :

CRA

This modification is specified in Proposed Solution Option 2: CRA.

SAA

Add a new dated System Parameter: Credited Energy Volume Threshold (CEVT). Modify the SAA-F009 to calculate the total Credited Energy Volume for each TPG for each Settlement Period, and use this data to determine which nominated parties qualify. Extend database to hold new reporting and processing data.

Alternative Solution (Small Suppliers) Option 3:

CRA

This modification is specified in Proposed Solution Option 3: CRA plus additional reporting provided via CRA reports

SAA

This modification is specified in Alternative Solution (Small Suppliers) Option 2: SAA.

The **Alternative Solution (All Parties)** details additional functionality which extends the criteria for its application to Generators and Traders in addition to Suppliers.

Alternative Solution (All Parties) Option 1:

CRA

This modification is specified in Proposed Solution Option 1: CRA, but has a change in CRA Validation.

SAA

This modification is broadly as specified in Proposed Solution Option 1: SAA with a minor detail change.

Alternative Solution (All Parties) Option 2:

CRA

This modification is as specified in Proposed Solution Option 2: CRA, but has a change in CRA Validation.

SAA

This modification is broadly as specified in Proposed Solution Option 1: SAA with a minor detail change.

Alternative Solution (All Parties) Option 3:

CRA

This modification is specified in Proposed Solution Option 3: CRA, but has a change in CRA Validation.

SAA

This modification is broadly as specified in Proposed Solution Option 1: SAA with a minor detail change.

Optional Functionality

The following three options have been assessed as additions to any of the previous solutions. As such they have only additional testing required and whilst they have durations noted, these can be absorbed into the 26 week options above.

Non-Delivery Option 1 & 2:

Modify the "SAA-F015 Calculate non-delivery charges" module.

BMRA Reporting :

Add a new system dated parameter Tolerance Price Differential (TPD). Modify the Settlement Calculation to calculate the indicative Tolerance Price for impacted Settlement Dates. Store the new reporting value in the database. Modify the Publishing functionality to include this new Indicative Tolerance Price (System Prices screen). Update BMRA Help Text to include these details.

Deviation from ELEXON's Solution / Requirements

None

Operational Solution and Impact

None

Testing Strategy

Unit	X	Change Specific	X	End to End	
Module	X	Operational Acceptance	X	Participant Testing	X
System	X	Performance		Parallel Running	
Regression	partial	Volume		Deployment/ Backout	

Other: The common data model will be modified under the SAA changes and SAA regressions testing performed. However BMRA and ECVAA regression testing has been excluded as the data changes should not have any effect and the Operation Acceptance Testing is felt adequate to identify any unforeseen issues. This strategy saves 20 Days testing in all solutions (if the optional BMRA additional changes are required then BMRA

regression tests will be run).
Validated Assumptions
None

Outstanding Issues							
None							
Changes to Service							
Services Impacted							
	BMRA	CDCA	CRA	ECVAA	SAA	TAA	Other
Software	X		X		X		
IDD Part 1 (Docs)	X		X		X		
IDD Part 1 (S'Sheet)			X		X		
IDD Part 2 (Docs)			X		X		
IDD Part 2 (S'Sheet)							
URS	X		X		X		
SS	X		X		X		
DS	X		X		X		
MSS			X				
OSM			X				
LWIs			X				
RTP	None						
Comms	None						
Other	None						
Nature of Documentation Changes							
Changes to reflect solution detailed above.							
Nature / Size of System Changes							

Medium	
Deployment Issues, e.g. Outage Requirements:	None, unless Optional additional BMRA changes are required, in which case a BMRA outage.
Impact on Service Levels:	None
Impact on System Performance:	None
Responsibilities of ELEXON	
Within reasonable levels, ELEXON will make available appropriate staff to assist LogicaCMG during the development of this change.	
Acceptance Criteria	
This is covered by the acceptance criterion 2 in the "CVA Program – Release Acceptance Criteria" document for the Feb03 Release.	
Any Other Information	
Attachments	
P201 or P202 Full Price Presentation v0.2.xls	

NETA Change Form

Title		Version No.
P201 'Energy Imbalance Tolerance Band' or P202 'Energy Imbalance Incentive Band'		0.2
		LogicaCMG Reference
		ICR749
ELEXON Reference	**Date CP Received**	**Date IA Issued**
P201 or P202	19-Jul-2006	25-Jul-2006
LogicaCMG Contact Name	**Baseline for Impact Assessment**	
Martin Godden	P201/P202 Requirement Specification dated 18th July 2006 v3.0 [P20IAS]	

Price Breakdown		
Item description	**Remarks**	**Price (ex VAT)**
Change Specific	Workaround Solutions – Proposed Alternative (Small Suppliers) Alternative (All Parties)	 £ 21,497 £ 23,949 £ 21,497
Release Costs	Workaround Solutions – Proposed Alternative (Small Suppliers) Alternative (All Parties)	 £ 11,432 £ 11,432 £ 11,432

Total Price (ex VAT)	**Workaround Solutions –** **Proposed** **Alternative (Small Suppliers)** **Alternative (All Parties)**	 **£ 32,929** **£ 35,381** **£ 32,929**

Price Tolerance	0%
Justification for Price Tolerance	
N/A	

Project Duration	**Workaround Solutions –** **Proposed** **Alternative (Small Suppliers)** **Alternative (All Parties)**	8 weeks 8 weeks 8 weeks

Cut Off Date for Inclusion in Specified Release (if applicable)
N/A

Operational Price per period (ex VAT)	Workarounds – to Feb 07 LogicaCMG Operated Workarounds – to Jun 07 LogicaCMG Operated	£ 8,300 £ 16,600
Rationale		
The above estimate is based on 1 man hour (Team Leader grade) per elapsed working day for the duration of the workaround.		

Annual Maintenance Price (ex VAT)	£0
Rationale	
The Annual Maintenance Price is zero under the agreement commencing on 1 January 2005.	

Validity Constraints

- Price and duration assume that this change is developed in isolation and the effects of other changes are excluded.
- No allowance is included for the final solution being different from the baseline.
- No allowance is included for supporting Release Audit activities. Any effort will be charged at contracted T&M rates
- No allowance is included for supporting ELEXON assurance activities. Any effort will be charged at contracted T&M rates
- No allowance is included for End to End/Participant Testing activities. Any effort will be charged at contracted T&M rates
- No allowance is included for Walkthrough activities. Any effort will be charged at contracted T&M rates
- No allowance is included to support ELEXON in parallel run testing activities

The validity period for this assessment is 30 days and is based on the following payment schedule:

- LogicaCMG will invoice 50% on receipt of Purchase Order or authorised start of work and 50% on deployment or within one month of the change being ready for deployment
- Operate charge invoicing will be deferred until the de minimis limit has been reached

Authorised Signature	Date Signed

Requirements and Solution

Brief Summary of Change

Proposed Modifications P201 and P202 introduce a tolerance band for the application of Imbalance Charges to Supplier Consumption Energy Accounts in varying circumstances.

This impact assessment considers the Workaround options that have been proposed for the Alternative and |Proposed modifications for P201 or P202. These are listed below :

- **Workaround Proposed Solution Baselined as :**
  5.2 Implementation via a workaround operated by BSC Agent

- **Workaround Alternative Solution 4.1 (Small Suppliers) Baselined as :**
  5.2 Implementation via a workaround operated by BSC Agent – Paragraph :
  To apply to Small Suppliers only i.e. for Trading Party Groups where total Credit Energy Volume is <750MWh.

- **Workaround Alternative Solution 4.2 (All Parties) Baselined as :**
  5.2 Implementation via a workaround operated by BSC Agent – Paragraph :
  To apply to Suppliers, Generators, and Traders.

LogicaCMG's Proposed Solution

Workaround Proposed Solution:
Use semi-automated scripts, run post-Settlement Run for P201/P202 effective Settlement Dates, to reprocess the Calculate Energy Imbalance Cashflow data and its dependant data. Update the existing database data with the recalculated values so that subsequent runs of the SAA-I014 and SAA-I013 contain the P201/P202 compliant data.

Workaround Alternative Solution (Small Suppliers):
Expand the workaround scripts to calculate TPG total CEV for each Settlement Period, and to use these values to identifying qualifying parties.

Workaround Alternative Solution (All Parties):
Expand workaround scripts to consider both Production and Consumption accounts for each qualifying party.

Deviation from ELEXON's Solution / Requirements

None

Operational Solution and Impact

The workaround identified in the "LogicaCMG's Proposed Solution" section would in effect be running the settlement calculations twice as often. This will have an adverse effect on system performance.

Testing Strategy					
Unit	X	Change Specific		End to End	
Module	X	Operational Acceptance		Participant Testing	
System		Performance		Parallel Running	
Regression		Volume		Deployment/ Backout	X
Other:					

Validated Assumptions
None

Outstanding Issues
None

Changes to Service							
Services Impacted							
	BMRA	CDCA	CRA	ECVAA	SAA	TAA	Other
Software							
IDD Part 1 (Docs)							
IDD Part 1 (S'Sheet)							
IDD Part 2 (Docs)							
IDD Part 2 (S'Sheet)							
URS							
SS							
DS							
MSS							
OSM							
LWIs							
RTP	None						
Comms	None						
Other	None						

Nature of Documentation Changes
None

Nature / Size of System Changes
Small

Deployment Issues, e.g. Outage Requirements:	None
Impact on Service Levels:	None
Impact on System Performance:	Utilising the workaround as a long term solution would have a net affect on the overall system performance as there are calculations being performed twice on some cash flows.

Responsibilities of ELEXON

Within reasonable levels, ELEXON will make available appropriate staff to assist LogicaCMG during the development of this change.

Acceptance Criteria

This is covered by the acceptance criterion 2 in the "CVA Program – Release Acceptance Criteria" document for the Feb03 Release.

Any Other Information

Questions regarding the Workaround and P201/ P202 functionality from Adam Lattimore (dated 19th July 2006):

Q1. As part of the script updates will SO13 and SO14 receive updated data and provide the correct price?
The SAA-I013 and SAA-I014 reports will publish the P201 and P202 compliant cashflows within the bounds of the existing data items available on the SAA-I013 and SAA-I014 reports. Data items such as the "Tolerance Price" introduced by P201/ P202 would only be published by the full solution using a new DTC version of these reports.

Q2. What testing will there be for the workaround?
As well as module level testing on the various elements that make up the solution, to prove their correctness, there will also be end to end, integration testing carried out to demonstrate the entire package works correctly as a whole. This end to end testing will be carried out using Live like data.

Q3. Will the work around work on a "short" day?
Yes, the workaround will work for "short" days. We are not currently intending to make the workaround work for "long" days as this would introduce unnecessary additional coding and testing effort.

Q4. Could you explain in detail why the workaround could not be used permanently? We do not intend to implement such an approach, but this would clarify some issues for the Modification Group.

There are a number of reasons why the workaround should not be used permanently :

a) We made a number of design decision for this solution, balancing risk against cost, on the basis that this would only be in operation for a short period of time. The long term operation of a critical service such as SAA requires certain measures to be taken in order to ensure a continuing level of successful operation, taking into account the various possible scenarios that can occur, as well as ensuring our ability to maintain and modify the system over time. While the workaround is reasonably robust it does include a level of risk which we feel we can only comfortably control over a relatively short period of operation.

b) The workaround involves calculating some settlement cashflows twice, once using the P194 baseline and again revised for the P201/ P202 baseline. This will have an adverse affect on the performance of the settlement processing although the actual magnitude of this performance degradation can not be fully estimated.

c) The workaround does not include all aspects of the full solution.

d) In the event of a Demand Control incident or an Emergency Instruction being issued whilst the P201/ P202 workaround was in operation there would be two (or potentially three) manual adjustments to the System Prices and settlement cashflows. The cumulative risk of an error arising from these manual adjustments is still assessed as low, however, given the potential magnitude of such System Prices the impact of any error on Parties could be substantial

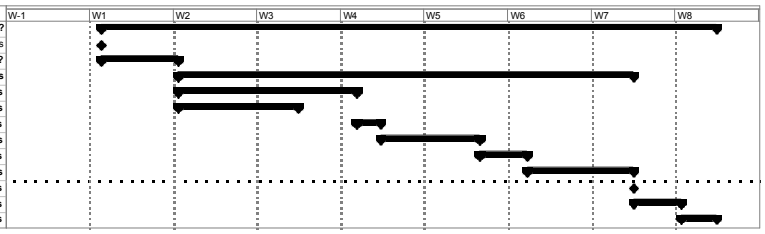
e) A significant risk reduction acknowledged by members of the Modification Group was that the reconciliation runs (at very least the Final Reconciliation run) would be run using the full solution developed according to a normal development cycle. As such any errors in the application of the workaround not previously noticed would be resolved by these reconciliation runs. If the workaround solution was to be run permanently this risk reduction strategy would not exist.

f) The workaround would introduce a two phase settlement calculation process. This is considerably more difficult to maintain in the event either that defects are found in the settlement calculation which must be fixed via the OR process or that a further change to the settlement calculation is approved (for example via another Modification).

g) The workaround as currently envisaged would not include handling of the long day and the testing of this scenario. This would be required for any solution which was to operate beyond October 2007.

Indicative Plan

ID	Task Name	Duration
1	**Project Plan Template**	**36.45 days?**
2	Project Start	0 days
3	**Design**	**4.12 days?**
8	**Design Support**	**27.33 days**
9	**Development**	**10 days**
11	**Test Specification**	**8.38 days**
14	**Build #1 Creation and Installation**	**2 days**
16	**Initial Testing**	**6.67 days**
18	**Build #2 Creation and Installation**	**2 days**
20	**Integration Testing**	**6.67 days**
23	**Participant Testing**	**0 days**
25	**Operational Acceptance Testing**	**2 days**
27	**Deployment**	**3 days**



Attachments

P201 or P202 Workaround Price Presentation v0.2.xls

Responses for CPC00580

Detailed Level Impact Assessment of P201/P202

Carried out by	Comments
Louise Allport **British Energy Power & Energy Trading, British Energy Generation Ltd, British Energy Direct Ltd, British Energy Generation (UK) Ltd, Eggborough Power Ltd**	1. Would the Proposed Modification, as outlined in the attached Requirements Specification, impact your organisation? Yes 2. If yes, please provide a description of the impact, any costs incurred, and the implementation timescale required: The changes required to systems would be significant with an estimation of 60 working days to implement the changes required. As the solution is not yet fully finalised we cannot provide an estimate of the costs likely to be incurred. 3. Please provide any relevant comments on the workaround? 4. Do you believe the Tolerance Price should be reported on the BMRS? No. Given the simplicity of the Tolerance Price calculation from information already provided by BMRS we do not believe it is cost efficient to report the Tolerance Price. 5. What level of reporting do you consider necessary in relation to Trading Party Groups and Qualification (NB: a number of options are identified in the requirements specification)? 6. Any further comments?

Gary Henderson SAIC Ltd **Scottish Power UK plc** **ScottishPower Energy Management Ltd.** **ScottishPower Generation Ltd.** **ScottishPower Energy Retail Ltd.** **SP Manweb plc.** **SP Transmission Ltd.** **SP Distribution Ltd.**	1. Would the Proposed Modification, as outlined in the attached Requirements Specification, impact your organisation? Yes 2. If yes, please provide a description of the impact, any costs incurred, and the implementation timescale required: There would be changes required to various ScottishPower systems and processes to accommodate both the workaround and the final solution. These are estimated at approximately £50000 with a lead time of 6 months. 3. Please provide any relevant comments on the workaround? As previously stated, ScottishPower do not believe that the workaround is a viable option on the basis that the use of a manual workaround of this nature is fraught with potential risk to the entire market. This may leave Parties in an uncertain position, unable to fully validate their Trading Charges. The Assessment Consultation suggests that this workaround could be in operation for a minimum of three months, and potentially for up to 7 months. Any manual process running for that length of time has the potential to cause large problems for all Parties. Without knowing what the proposer's position is, we do not believe the cost and risk to the rest of the market are justified to consider this approach. 4. Do you believe the Tolerance Price should be reported on the BMRS? Yes, ScottishPower believe that the market requires access to all pertinent information to enable Parties to best manage their affairs. 5. What level of reporting do you consider necessary in relation to Trading Party Groups and Qualification (NB: a number of options are identified in the requirements specification)? Option 1 6. Any further comments?

Merel van der Neut Kolfschoten **Centrica**	1. Would the Proposed Modification, as outlined in the attached Requirements Specification, impact your organisation? **Yes.** 2. If yes, please provide a description of the impact, any costs incurred, and the implementation timescale required: **<u>Impact</u>** The Proposed Modification will have an impact in a number of areas. For example, we will have to: - **implement system changes (incl. testing);** - **implement changes to internal reports and validation processes.** **In addition, we will pick up a substantial part of the Logica/Elexon costs associated with the implementation of this Proposed Modification, which requires not only a full implementation but also a manual work around for a significant number of months.** **<u>Costs (normal implementation)</u>** Our initial cost estimate for system changes alone is a minimum of £100,000 - £200,000, but the exact amount very much depends on the details and timescales. We estimate costs associated with non-system changes to be around £30,000 – £40,000. **<u>Implementation timescale (normal implementation)</u>** **A minimum of 5-6 months.** **<u>Alternative Modifications</u>** **The impact of Alternative Modification 2 (all parties) would be similar to the impact of the Proposed Modification. Ignoring the impact on RCRC, the impact of Alternative Modification 1 (small suppliers only) could be less because we would have to pay for only part of the Logica/Elexon costs and our internal costs would be reduced. However this is assuming that applying the Tolerance Band to only small suppliers would not require additional system changes that would significantly increase costs. We would need further details to determine the exact impact.**

Mandeep Basra E.ON UK plc	1. Would the Proposed Modification impact your Organisation? **P201 and P202 would impact E.ON UK significantly. Our systems currently deal with 4 potential imbalance prices: Main sell/buy and market sell/buy. P201 would introduce 5 potential prices (with the addition of short tolerance price) and P202 would introduce 6 potential prices (with the addition of both short and long tolerance prices).** 2. If yes, please provide a description of the impact, any costs incurred, and the implementation timescale required: **Software changes to manage and evaluate the additional potential imbalance prices could take 3 months and could cost £100,000.** 3. Please provide any relevant comments on the workaround? **Although it is welcome that the accuracy of the Central Systems reporting would not be affected, there would still be a cost implication for managing the workaround. Additional staff costs, with on-costs, of circa £100,000 per annum would be incurred pro rata for the duration. These additional internal resources would be required as, with tolerance bands, Main prices could not be used to validate imbalances.** 4. Do you believe the Tolerance price should be reported on the BMRS? **E.ON UK notes that changes to the BMRS would incur significant costs that would be passed onto BSC Parties. However, we do not have a view on the benefit of reporting Tolerance Prices.** 5. **What level of reporting do you consider necessary in relation to Trading Party Groups and Qualification?** Each of the options in the Requirements Specification included SAA reporting at Energy Account and Settlement Period level of the Energy Account Tolerance Qualifying Flag (TBQFaj), which would be essential.

P202 TRANSMISSION COMPANY ANALYSIS AND IMPACT ASSESSMENT – RESPONSE PRO-FORMA

In accordance with paragraph F 2.8 of the Code, please respond to the following questions concerning P202 (including the rationale for each response):

Q	Question	Response
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.	There is no obligation on BSC parties to contract sufficiently to cover their energy position prior to Gate Closure. As such the need for market signals to fully and appropriately inform the market of the likely consequences of imbalance is essential to the efficient and secure functioning of the electricity market. Our principle concern with this proposed modification lies in how P202 will impact on the incentive to balance and the consequential impact that any change in market behaviour, or change in the certainty of market behaviour, will have on the ability of the Transmission Company to discharge its obligation to operate the transmission system in an efficient, economic and coordinated manner. The very fact that the ratio of risk and reward is altered will have implications for parties risk management strategies and their consequential market behaviour. This diminished incentive to balance will impact on the industry costs of system operation. The likely size of these costs will be dependent on the total energy account volume that can take advantage of this tolerance band.

		The consequential reduction in the Transmission Company's ability to fulfil its obligation will be correlated with that value. We also have concerns regarding the ability of participants to restructure their business into multiple energy accounts to more fully exploit this tolerance band. Although recognising that rules have been developed to mitigate against this eventuality, we would highlight that if these rules are ineffective, or leave a loop hole in place, then the consequences for system operation and associated industry costs could be considerable.
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.	This BSC modification will have a detrimental impact on BSC objective b in that it will diminish the incentive to balance, cause the System Operator to increase the number of actions taken to balance the system and consequentially introduce greater cost into the industry. This modification may sustain, or increase the number of suppliers into the market. However, if this level of market participation can only be sustained by the discriminatory socialisation of certain parties' imbalance costs, it is questionable as to whether this is really promoting effective competition in the generation and supply of electricity. This modification will reduce the liquidity in the spot markets as the

		incentive to balance is diminished. This cannot be beneficial in promoting competition in the purchase and sale of electricity. Certainly from this perspective this modification is detrimental to objective c.
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	This modification will alter the IO14 flow format. As such we will need to take account of this change in our IS systems. Given the wide range of alternatives articulated in this consultation document it is not clear as to the extent of these changes but it is likely that they would take approximately 6 months to implement. (We do not believe we are impacted by any work around solution) Any changes to market behaviour may also necessitate changes to system processes to better manage any ensuing market volatility (We do not believe we are impacted by any work around solution)
4	Please outline any potential issues relating to the security of supply arising from the Proposed Modification (and, if applicable, any Alternative Modification).	There is no obligation on BSC parties to contract sufficiently to cover their energy position prior to Gate Closure. The incentive to resolve their position in the forward market will be solely determined by the difference between likely exposure from imbalance and the cost of buying that energy forward. It is therefore imperative that, particularly at times of system stress, the incentives on all participants to cover their energy position are appropriate. The introduction of this modification will diminish that incentive to balance and as such this must have a detrimental impact on the security of supply. The level of this impact will be

		informed by the volume of energy that can take advantage of this proposal. Alternative 2 is of particular concern to us as the analysis, provided by Elexon, indicates that on average 1400MWh of energy is able to take advantage of this tolerance band. This equates to the capacity of approximately 6 large generation BM Units. Given the diminished incentive to balance we are concerned for the implications this modification will have on security of supply.
5	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, implementing the Proposed Modification (and, if applicable, any Alternative Modification).	We believe that P202 will reduce the incentive to balance. This will have implications for the level of balancing activity undertaken by the Transmission Company in balancing the system. The drivers of market length are many and complex. As such it is difficult to translate this reduced incentive to balance into a quantifiable change in market length. This, coupled with the short timeframe of this urgent consultation response, makes a cost assessment relatively difficult and inaccurate and we would like to stress the very approximate nature of this costing. However for the purposes of this assessment we have assumed a status quo for all other drivers of market length. This estimate of first order industry costs has been assessed against alternative 2 which we consider will have the greatest

		impact on SO activity. The estimate is directly related to the volume of energy that can take advantage of this alternative and as such other options can be assessed as a ratio of this cost based on the applicable energy volume they identify. The potential SO costs incurred by P202 will fall into two categories, Extra reserve and extra energy costs to resolve this imbalance in real time. The extra reserve holding will be based on the likely change in accessible capacity and so its enduring level will be informed by market behaviour. Initial estimates for alternative 2 place this around 380MW. The current average availability costs for Standing Reserve are £5/MW/h and the average daily duration of standing reserve periods are between 6 and 8 hours. This equates to extra reserve availability costs of £4,000,000 pa. It is more difficult to estimate the impact on the changes in the real time resolution of energy imbalance. It is likely that the reduction in the incentive to balance will cause the market to go shorter when there is a perception that the market is short. The understanding on how this modification will impact the market when there is a perception that the market will go long is less clear. The tolerance band compensation for spilling,

		in such instances, will provide a premium on SSP and may cause parties to remain long. However participant risk exposure on being energy short or energy long are not symmetrical and as such we would expect the net effect to increase the number of offers taken by the system operator. This will have a material impact on the costs to the industry of system operation.
6	Please provide details of any consequential changes to Core Industry Documents and/or the System Operator Transmission Owner Code that would be required as a result of the implementation of the Proposed Modification (and, if applicable, any Alternative Modification).	We do not believe there are any consequential changes to core industry documents or the STC as a consequence of this proposal.
7	Any other comments on the Proposed Modification (and Alternative Modification if applicable).	We would like to note our concern at the number of issues that remain unresolved in this consultation. This is especially of concern given that this modification has been given urgent status and as such the ability to comment on the final determined solution will be very limited. Questions as to the price premium to be added to the MIDP price, the determination of parties that are eligible for the tolerance band, the size of the tolerance band, the determination as to whether alterations regarding the rules governing non delivery will be included in the modification and the rules to safe guard against the subdivision of energy accounts make any meaningful impact assessment on the operation of the transmission system very difficult to achieve.