

MODIFICATION REPORT for Modification Proposal P217 'Revised Tagging Process and Calculation of Cash Out Prices'

Prepared by: ELEXON¹ on behalf of the BSC Panel

Date of Issue: 11 July 2008

Document Reference: P217RR

Reason for Issue: For Authorisation

Version Number: 1.0

This document has been distributed in accordance with Section F2.1.10 of the Balancing and Settlement Code.²

Proposed Modification P217 seeks to improve the main Energy Imbalance Price calculation by introducing a new set of rules to replace the existing tagging rules and by using disaggregated Balancing Services Adjustment Data (BSAD). The intention of the new rules is to remove or replace costs that arise from balancing actions that resolve transmission constraints, which are not considered suitable for inclusion in a pure energy price. Proposed Modification P217 would also reduce the Price Average Reference (PAR) volume to 100MWh.

Alternative Modification P217 is identical to the Proposed Solution except that the current PAR volume of 500MWh would be retained.

BSC PANEL'S RECOMMENDATIONS

Having considered and taken into due account the contents of the P217 draft Modification Report, the BSC Panel recommends:

- **that Proposed Modification P217 should not be made;**
- **that Alternative Modification P217 should be made;**
- **an Implementation Date for Proposed and Alternative Modification P217 of 05 November 2009 if an Authority decision is received on or before 30 October 2008, or 16 March 2010 if an Authority decision is received after 30 October 2008 but on or before 25 February 2009; and**
- **the proposed text for modifying the Code.**

¹ ELEXON Ltd fulfils the role of the Balancing and Settlement Code Company ('BSCCo').

² The current version of the Code can be found at <http://www.elexon.co.uk/bscrelateddocs/BSC/default.aspx>

CONTENTS TABLE

Summary of Impacted Parties and Documents	3
1 Description of Modification	4
1.1 Background	4
1.2 Proposed Modification	4
1.3 Alternative Modification	5
2 Areas Raised by the Terms of Reference	5
3 Implementation Approach and Costs.....	5
4 Rationale for Modification Group's Recommendations to the Panel	7
4.2 Implementation Date	13
4.3 Legal Text.....	13
5 Rationale for Panel's Recommendations to the Authority.....	13
5.1 Panel's Consideration of Assessment Report.....	13
5.2 Results of Report Phase Consultation.....	18
5.3 Panel's Consideration of Draft Modification Report and Consultation responses	20
5.4 Panel's Final Recommendation to the Authority	21
6 Terms Used in this Document	21
7 Document Control	22
7.1 Authorities	22
7.2 Attachments.....	22
7.3 References.....	22
Appendix 1: Legal Text	23
Appendix 2: Process Followed	28
Appendix 3: Assessment Report	30
Appendix 4: Report Phase Consultation Responses	30

Intellectual Property Rights, Copyright and Disclaimer

The copyright and other intellectual property rights in this document are vested in ELEXON or appear with the consent of the copyright owner. These materials are made available for you for the purposes of your participation in the electricity industry. If you have an interest in the electricity industry, you may view, download, copy, distribute, modify, transmit, publish, sell or create derivative works (in whatever format) from this document or in other cases use for personal academic or other non-commercial purposes. All copyright and other proprietary notices contained in the document must be retained on any copy you make.

All other rights of the copyright owner not expressly dealt with above are reserved.

No representation, warranty or guarantee is made that the information in this document is accurate or complete. While care is taken in the collection and provision of this information, ELEXON Limited shall not be liable for any errors, omissions, misstatements or mistakes in any information or damages resulting from the use of this information or action taken in reliance on it.

SUMMARY OF IMPACTED PARTIES AND DOCUMENTS

As far as the Modification Group has been able to assess, the following parties/documents would be impacted by P217.

Please note that this table represents a summary of the full impact assessment results contained in Appendix 3.

Parties		BSC Sections		Code Subsidiary Documents	
Distribution System Operators	<input type="checkbox"/>	A	<input type="checkbox"/>	BSC Procedures	<input checked="" type="checkbox"/>
Generators	<input checked="" type="checkbox"/>	B	<input type="checkbox"/>	Codes of Practice	<input type="checkbox"/>
Interconnectors	<input checked="" type="checkbox"/>	C	<input checked="" type="checkbox"/>	BSC Service Descriptions	<input type="checkbox"/>
Licence Exemptable Generators	<input checked="" type="checkbox"/>	D	<input type="checkbox"/>	Party Service Lines	<input type="checkbox"/>
Non-Physical Traders	<input checked="" type="checkbox"/>	E	<input type="checkbox"/>	Data Catalogues	<input checked="" type="checkbox"/>
Suppliers	<input checked="" type="checkbox"/>	F	<input type="checkbox"/>	Communication Requirements Document	<input type="checkbox"/>
Transmission Company	<input checked="" type="checkbox"/>	G	<input checked="" type="checkbox"/>	Reporting Catalogue	<input checked="" type="checkbox"/>
Party Agents		H	<input type="checkbox"/>	Core Industry Documents	
Data Aggregators	<input type="checkbox"/>	I	<input type="checkbox"/>	Ancillary Services Agreement	<input type="checkbox"/>
Data Collectors	<input type="checkbox"/>	J	<input type="checkbox"/>	Data Transfer Services Agreement	<input type="checkbox"/>
Meter Administrators	<input type="checkbox"/>	K	<input type="checkbox"/>	Distribution Code	<input type="checkbox"/>
Meter Operator Agents	<input type="checkbox"/>	L	<input type="checkbox"/>	Distribution Connection and Use of System Agreement	<input type="checkbox"/>
ECVNA	<input type="checkbox"/>	M	<input type="checkbox"/>	Grid Code	<input type="checkbox"/>
MVRNA	<input type="checkbox"/>	N	<input type="checkbox"/>	Master Registration Agreement	<input type="checkbox"/>
BSC Agents		O	<input type="checkbox"/>	Supplemental Agreements	<input type="checkbox"/>
SAA	<input checked="" type="checkbox"/>	P	<input type="checkbox"/>	Use of Interconnector Agreement	<input type="checkbox"/>
FAA	<input type="checkbox"/>	Q	<input checked="" type="checkbox"/>	BSCCo	
BMRA	<input checked="" type="checkbox"/>	R	<input type="checkbox"/>	Internal Working Procedures	<input checked="" type="checkbox"/>
ECVAA	<input type="checkbox"/>	S	<input type="checkbox"/>	BSC Panel/Panel Committees	
CDCA	<input type="checkbox"/>	T	<input checked="" type="checkbox"/>	Working Practices	<input type="checkbox"/>
TAA	<input type="checkbox"/>	U	<input checked="" type="checkbox"/>	Other	
CRA	<input type="checkbox"/>	V	<input checked="" type="checkbox"/>	Market Index Data Provider	<input type="checkbox"/>
SVAA	<input type="checkbox"/>	W	<input type="checkbox"/>	Market Index Definition Statement	<input type="checkbox"/>
Teleswitch Agent	<input type="checkbox"/>	X	<input checked="" type="checkbox"/>	Connection and Use of System Code	<input type="checkbox"/>
BSC Auditor	<input type="checkbox"/>	Z	<input type="checkbox"/>	System Operator-Transmission Owner Code	<input type="checkbox"/>
Profile Administrator	<input type="checkbox"/>			Transmission Licence	<input checked="" type="checkbox"/>
Certification Agent	<input type="checkbox"/>				
Other Agents					
Supplier Meter Registration Agent	<input type="checkbox"/>				
Unmetered Supplies Operator	<input type="checkbox"/>				
Data Transfer Service Provider	<input type="checkbox"/>				

1 DESCRIPTION OF MODIFICATION

This section outlines the solution for the Proposed Modification and Alternative Modification, as developed by the P217 Modification Group ('the Group') during the Assessment Procedure.

For a full description of the original Modification Proposal as submitted by RWE Npower ('the Proposer'), and the background to the proposal, please refer to the P217 Initial Written Assessment (IWA).

1.1 Background

Background

A BSC Party pays or receives Energy Imbalance Charges when its credited energy (e.g. metered volume or volume reallocation) does not match its notified contract volume (e.g. energy sale or purchase). Energy Imbalance Charges are calculated on the basis of Energy Imbalance Prices and the volume of the imbalance. Imbalance settlement, or 'cash out', is designed so that the main Energy Imbalance Price reflects the short term energy costs incurred by the System Operator (SO) in rectifying the residual imbalance.

Why was P217 raised?

The Proposer believes that the main Energy Imbalance Price is currently being polluted by expensive actions that the SO has taken in order to manage transmission constraints. The current tagging processes do not always remove these expensive actions from the main Energy Imbalance Price. Under P217, a new set of rules would replace the current tagging processes. These include tagging, flagging and classification processes for actions taken by the SO. The Proposer suggests that this would make the main Energy Imbalance Price more reflective of the short term energy balancing costs the SO would incur if transmission constraints did not exist.

1.2 Proposed Modification

The P217 Proposed Modification would introduce:

- The disaggregation of BSAD;
- The concept of flagging:
 - SO identification, (referred to as 'flagging'), of balancing actions deemed as potentially being impacted by transmission constraints;
 - Flagging of actions currently classed as Excluded Emergency Acceptances; and
 - Continuous Acceptance Duration Limit (CADL) flagging of short duration actions.
- The concept of classification, where a flagged action would retain its price if it were less expensively priced than the most expensive unflagged action in its stack (Buy or Sell);
- A Replacement Price for any unpriced balancing actions (that is, actions classified as Flagged (unpriced)) that enter into the Net Imbalance Volume (NIV). The Replacement Price would be calculated from a volume-weighted average of the 100MWh of the most expensively priced actions (from the perspective of the SO) remaining in the NIV; and
- A reduced Price Average Reference (PAR) volume of 100MWh.

For a full description of the Proposed Modification solution see Section 2 of the P217 Assessment Report (See Appendix 3). For the Report Phase consultation the P217 Assessment Report can be accessed via the BSC Website at:

<http://www.elexon.co.uk/changeimplementation/ModificationProcess/modificationdocumentation/modProposalView.aspx?propID=237>

For a high level description of the solution and a comparison against the current arrangements see the P217 Assessment Report Panel presentation slides (Attachment 3).

1.3 Alternative Modification

The Alternative Modification is identical to the Proposed Solution apart from the PAR volume being set at the current value of **500MWh**.

2 AREAS RAISED BY THE TERMS OF REFERENCE

The following areas were considered by the Modification Group during the Assessment Procedure for P217:

- The detailed rules for the calculation of the main Energy Imbalance Price;
- The detailed rules for the ex-ante constraint flagging methodology for identifying locational transmission constraints as developed by the Transmission Company;
- The detailed rules for the calculation of the Replacement Price, including the size of the 'chunk' used to determine the Replacement Price;
- The PAR volume for the main Energy Imbalance Price;
- The required governance arrangements for the P217 arrangements, and any interaction with the BSAD Methodology Statement;
- Whether there would be any issues completing the proposed tagging process within the existing prompt price reporting timescales;
- The detailed treatment of BSAD under the proposed arrangements. This included consideration of disaggregated BSAD, the inclusion of BSAD in the calculation of the main Energy imbalance Price and Option fees (via the BPA and SPA) in the calculation of the main Energy Imbalance Price;
- The Group's justification for the inclusion of reserve in the main Energy Imbalance Price calculation;
- The required reporting under P217; and
- Detailed analysis of the impact on Energy Imbalance Prices.

These issues are discussed in the Assessment Report contained in Appendix 3, and are not covered further here.

3 IMPLEMENTATION APPROACH AND COSTS

The implementation costs of both P217 Proposed and Alternative Modifications would be:

BSC Agent

	Implementation Cost	Tolerance
BSC Agent	£292,030	0%

The BSC Agent would require 35 weeks to implement the change. For full discussion on the BSC Agent's implementation options and approach see Section 3.14 of the P217 Assessment Report (See Appendix 3).

BSCCo

	Implementation Cost	Tolerance
BSCCo	£129,780	10%

The BSCCo costs are split into 270 man days or £59,400 to implement the change (update Code Subsidiary Documentation, testing and deployment), and £70,380 (+/- 20% tolerance) to update the Trading Operations Market Assurance System (TOMAS³) to the P217 arrangements.

BSCCo would require an additional 8 weeks to implement P217 following the BSC Agent implementation in order to complete user acceptance testing.

Transmission Company

	Implementation Cost	Contingency
Transmission Company	£658,000	£167,000

The Transmission Company implementation timescale is 12 months. It should be noted that the Transmission Company implementation costs are not recovered through BSC charges, (as is the case with BSC Agent and BSCCo implementation costs), but through Balancing Services Use of System (BSUoS) charges.

Parties and Party Agents

5 Parties responded to the impact assessment. All noted medium to low impacts as a result of P217. Impact assessments had been received from 4 larger Parties and one smaller Party. The highest cost impact was £50,000, and the longest implementation period was 6 - 12 months. However, most Parties reported lower costs and shorter implementation timescales. Parties reported they would be required to change their systems to accept the new SAA I0-14 flow and the new BMRS data.

³ TOMAS is the BSCCo market monitoring system that processes various industry flows and performs price modelling. It would need to be updated to correctly model the P217 Imbalance Pricing arrangements.

4 RATIONALE FOR MODIFICATION GROUP'S RECOMMENDATIONS TO THE PANEL

4.1.1 Conclusion

The **MAJORITY** view of the Group is that the Alternative Modification **WOULD** better facilitate the achievement of Applicable BSC Objectives (b), (c) and (d) when compared to the current Code baseline and the Proposed Modification.

The **MAJORITY** view of the Group is that the Proposed Modification **WOULD NOT** better facilitate the achievement of Applicable BSC Objectives (b), (c) and (d) when compared to the current Code baseline. Note that this is a different majority view from that consulted on by the Group⁴.

A **MINORITY** view of the Group is that **NEITHER** the Proposed Modification **NOR** the Alternative Modification **WOULD** better facilitate the achievement of Applicable BSC Objectives when compared to the current Code baseline.

4.1.2 Proposed Modification

The **MINORITY** view of the Modification Group is that the Proposed Modification **WOULD** better facilitate the achievement of Applicable BSC Objectives (b), (c) and (d) when compared to the current Code baseline, for the reasons given in the second column of the table below.

The **MAJORITY** view of the Modification Group is that the Proposed Modification **WOULD NOT** better facilitate the achievement of Applicable BSC Objectives (b), (c) and (d) when compared to the current Code baseline, for the reasons given in the third column of the table below.

Applicable BSC Objective	BETTER facilitates the Applicable BSC Objective against the current baseline	DOES NOT BETTER facilitate the Applicable BSC Objective against the current baseline
(a)	<ul style="list-style-type: none"> Neutral 	<ul style="list-style-type: none"> Neutral
(b)	<ul style="list-style-type: none"> P217 Proposed would provide a more cost reflective main Energy Imbalance Price as the impact of transmission constraints would be significantly reduced. This would increase the degree to which the energy costs of the SO in balancing the system are accurately reflected in Energy Imbalance Prices. Cost reflective Energy Imbalance Prices and the appropriate targeting of those are essential to provide the 	<ul style="list-style-type: none"> P217 Proposed Modification is likely to lead to greater transparency of the location, frequency and duration of active transmission constraints, even if the identification of constraint boundaries would not be explicitly revealed. This extra information and transparency may lead to Parties pricing more keenly in an area with an active transmission constraint. This could increase the SO balancing costs.

⁴ The Group's initial majority view was that the Proposed Modification **WOULD** better facilitate the achievement of Applicable BSC Objectives (b), (c) and (d) when compared to the current Code baseline. This is primarily due to the variance in members present at each meeting.

Applicable BSC Objective	BETTER facilitates the Applicable BSC Objective against the current baseline	DOES NOT BETTER facilitate the Applicable BSC Objective against the current baseline
	<p>correct incentives for Parties to balance.</p> <ul style="list-style-type: none"> With Parties facing the correct incentives to balance, P217 Proposed would reduce the SO costs for balancing the System when compared to the current arrangements. (Note that, although BSUoS costs are outside of the BSC, the Transmission Company's analysis estimates an anticipated £4 million reduction in BSUoS costs per annum with the implementation of P217 Proposed). This would be beneficial to the efficient operation of the GB transmission system. By moving towards a more marginal pricing methodology, P217 Proposed Modification would provide more appropriate signals for market participants to balance. 	<ul style="list-style-type: none"> The increased visibility of transmission constraints could give BSC Parties with larger generation portfolios the ability to move contracted generation load in or out of the transmission constraint zone and thereby exacerbate the boundary value. Such activity could require the SO to procure or sell greater levels of generation, potentially at an unattractive premium, to secure the system. The more marginal pricing regime of P217 Proposed Modification may mean that some generators would withhold capacity to self hedge rather than offering this in the balancing mechanism. This would increase the SO costs for balancing the system.
(c)	<ul style="list-style-type: none"> P217 Proposed Modification should result in a more cost reflective main Energy Imbalance Price by accurately reflecting only the energy costs incurred by the SO to resolve the net imbalance on the system. This would result in the costs of balancing being more accurately targeted on those Parties out of balance. This would enhance market competition given that Parties would be faced with the correct incentives. P217 Proposed Modification would introduce greater transparency into the imbalance pricing arrangements. Participants would be able to attain a greater understanding of how the main Energy Imbalance Price would be calculated and which areas were constrained. Transparency facilitates competition by encouraging new entrants and providing for more favourable arrangements for existing Parties to operate under. As areas affected by transmission constraints would be visible to all Parties, this would act as a counter to the potential for detrimental changes in behaviour. It is possible that any pricing or locational load swapping activity would be visible to 	<ul style="list-style-type: none"> Introducing a more marginal PAR volume could reduce competition as smaller Parties, who have historically proved less able to balance, would be subject to a generally higher SBP when they and the system are short. Introducing a more marginal price may amplify any imperfections of the P217 methodology (as set out in Section 3.2). P217 Proposed Modification does not explicitly exclude reserve from the main Energy Imbalance Price Calculation. In the view of a Group member reserve should be considered a system action and under P217 should be flagged. This would provide for more cost reflective prices.

Applicable BSC Objective	BETTER facilitates the Applicable BSC Objective against the current baseline	DOES NOT BETTER facilitate the Applicable BSC Objective against the current baseline
	<p>the general market community.</p> <ul style="list-style-type: none"> The Imbalance Pricing Guidance document would reduce one of the barriers to entry – the difficulty for new entrants to understand the imbalance pricing arrangements. 	
(d)	<ul style="list-style-type: none"> The Imbalance Pricing Guidance documents should increase the efficiency of the operation of the BSC as there would be greater industry understanding in how imbalance prices are calculated thereby reducing Imbalance Pricing related questions to ELEXON. 	<ul style="list-style-type: none"> P217 Proposed Modification is a more complex solution than the current baseline. P217 Proposed Modification has a significant BSCCo and BSC Agent implementation cost.

4.1.3 Alternative Modification

The **MAJORITY** view of the Group is that the Alternative Modification **WOULD** better facilitate the achievement of Applicable BSC Objectives (b), (c) and (d) when compared to the current Code baseline, for the reasons given in the second column of the table below.

The **MINORITY** view of the Group is that the Alternative Modification **WOULD NOT** better facilitate the achievement of Applicable BSC Objectives (b), (c) and (d) when compared to the current Code baseline, for the reasons given in the third column of the table below.

Applicable BSC Objective	BETTER facilitates the Applicable BSC Objective against the current baseline	DOES NOT BETTER facilitate the Applicable BSC Objective against the current baseline
(a)	<ul style="list-style-type: none"> Neutral. 	<ul style="list-style-type: none"> Neutral.
(b)	<ul style="list-style-type: none"> Same arguments as for the Proposed Modification aside from the anticipated reduction in BSUoS charges. Under the Alternative Modification the Transmission Company's analysis reports an estimated £150,000 increase in BSUoS charges per year. This is listed right as a disadvantage of the Alternative Modification. 	<ul style="list-style-type: none"> P217 Alternative Modification could increase the Transmission Company's costs for balancing the System when compared to the current arrangements. Whilst not a BSC cost, the Transmission Company's analysis reports an estimated £150,000 increase in BSUoS costs per year with the implementation of P217 Alternative. This increase arises from the Transmission Company's assessment of the expected changes in the NIV and changes in the relative levels of reserve requirement under the Alternative Modification. For more details see Attachment 7 of the P217 Assessment Report (See Appendix 3).

Applicable BSC Objective	BETTER facilitates the Applicable BSC Objective against the current baseline	DOES NOT BETTER facilitate the Applicable BSC Objective against the current baseline
		<ul style="list-style-type: none"> Other arguments are the same as the Proposed Modification.
(c)	<ul style="list-style-type: none"> Same arguments as for the Proposed Modification. 	<ul style="list-style-type: none"> P217 Alternative Modification does not explicitly exclude reserve from the main Energy Imbalance Price Calculation. In the view of a Group member reserve should be considered a system action and under P217 should be flagged. This would provide for more cost reflective prices.
(d)	<ul style="list-style-type: none"> Same arguments as for the Proposed Modification. 	<ul style="list-style-type: none"> Same arguments as for the Proposed Modification.

4.1.4 Proposed vs. Alternative

The **MAJORITY** view of the Group is that the Alternative Modification **WOULD** better facilitate the achievement of Applicable BSC Objectives (b), (c) or (d) when compared to the Proposed Modification.

A **MINORITY** of Group members believed the Proposed Modification **WOULD** better facilitate the achievement of Applicable BSC Objectives (b), (c) or (d) when compared to the Alternative Modification.

The following reasons were given:

Applicable BSC Objective	Proposed is better than Alternative	Alternative is better than Proposed
(a)	<ul style="list-style-type: none"> Neutral. 	<ul style="list-style-type: none"> Neutral.
(b)	<ul style="list-style-type: none"> A PAR level of 500MWh was introduced under Approved Modification P205 in order to reduce the impact of transmission constraints on the main Energy Imbalance Price (The baseline at the time being a PAR level of 100MWh). P217 has been shown to reduce the impact of transmission constraints. Therefore, keeping a PAR of 500MWh (as set out in Alternative) would result in less cost reflective prices than a PAR level of 100MWh. By providing a more marginal price and removing the predominant effects of transmission constraints, P217 	<ul style="list-style-type: none"> Keeping the current PAR level of 500MWh, as well as addressing the primary defect, mitigates some of the uncertainty that surrounds the introduction of new and complex arrangements. Until the solution has been implemented, and several months of data gathered, the full impact of how accurate P217 is at reflecting only the energy costs of balancing is difficult to assess. Therefore it is pragmatic to retain a PAR of 500MWh until the P217 arrangements (were it to be approved) had been proven to remove non-energy actions. A number of imperfections with the methodology have been identified and recognised as an artefact of the solution (see section 3.2). The

Applicable BSC Objective	Proposed is better than Alternative	Alternative is better than Proposed
	<p>Proposed Modification would provide a more cost reflective price. These costs are then appropriately targeted on those Parties who are out of balance providing appropriate incentives to balance. This reduces the SO's costs for balancing the System when compared to P217 Alternative. Note that whilst these are not BSC costs the Transmission Company estimated the following impact on BSUoS charges:</p> <ul style="list-style-type: none"> ▪ Proposed - £4 million reduction; and ▪ Alternative - £150,000 increase. <ul style="list-style-type: none"> • 	<p>majority of the Group believes these imperfections would not cause anomalies that would occur often. However, without large amounts of actual simulation analysis, it is impossible to be sure (the Group only had 5 days of data in which an actual simulation took place). Introducing a more marginal PAR volume may amplify any anomalies from the imperfections in the methodology that have been identified during the Assessment of P217 (as set out in section 3.2). For example, one unrepresentative action setting the main Energy Imbalance Price.</p> <ul style="list-style-type: none"> • The more marginal pricing regime of P217 Proposed may mean that some generators would hold capacity to self hedge rather than offering this in the balancing mechanism. This would increase the SO costs for balancing the system.
(c)	<ul style="list-style-type: none"> • P217 Proposed Modification would be more cost reflective when compared to the Alternative. This more marginal main Energy Imbalance Price would result in the costs of balancing being more accurately targeted on those Parties out of balance. Therefore P217 Proposed Modification would provide greater market competition given that Parties would be faced with the correct incentives. 	<ul style="list-style-type: none"> • Introducing a more marginal PAR volume could reduce competition as smaller Parties who have historically proved less able to balance would be subject to generally higher SBP when they are short, and the system is short. Therefore the less marginal PAR volume of P217 Alternative Modification would be preferable. • Previous analysis from Modification Proposal P205 indicated that a PAR of 500MWh would still provide the appropriate signals at time of system stress.
(d)	<ul style="list-style-type: none"> • Neutral. 	<ul style="list-style-type: none"> • Neutral.

A number of Group members reiterated their view that, while they theoretically agreed with the more marginal pricing methodology which would be delivered by the Proposed Modification, they preferred the Alternative Modification because they wanted to minimise the risk associated with introducing the P217 arrangements. These members believed that the Group's majority preference for the PAR volume of 500MWh over a PAR volume of 100MWh did not prevent the PAR volume being reduced at some point in the future. The suggestion was that perhaps PAR could be reviewed at a point where there was a greater understanding of how well the P217 arrangements operated in real life.

4.1.5 Group members that preferred neither the Proposed Modification or the Alternative Modification

The **MINORITY** view of the Group is that **NEITHER** the Proposed Modification nor the Alternative Modification **WOULD** better facilitate the achievement of Applicable BSC Objectives when compared to the current Code baseline.

The reasons for this view are outlined above in the column '**DOES NOT BETTER facilitate the Applicable BSC Objective against the current baseline**' in Section 4.1.2 and 4.1.3.

4.2 Implementation Date

The Modification Group agreed the following recommended implementation approach for both the Proposed Modification and the Alternative Modification:

- 05 November 2009 if an Authority decision is received on or before 30 October 2008; or
- 16 March 2010 if an Authority decision is received after 30 October 2008 but on or before 25 February 2009.

The Group noted the longest implementation period requested was 12 months (by the Transmission company and one Party). The Group also considered that the Authority had indicated that they would be considering P211 and P217 together, and the P211 decision date was 16 October 2008. A decision date around that period would suggest the first implementation date should be the November 2009 BSC Systems Release. It was noted that the decision date did not need to be the same as P211 and could be a later date that would still allow implementation as part of the November 2009 Release. The Group therefore set the first decision date as Thursday 30 October 2009, with the Implementation Date on 5 November 2009.

For the second Implementation Date BSCCo noted that the next available BSC Systems Release would be the February 2010 Release. However, the next available Implementation Date for the Transmission Company would be 16 March 2010 owing to their implementation strategy. The Group therefore had two options:

1. Implement the BSC changes during the February 2010 Release. The changes would not go live until 16 March 2010 when the Transmission Company changes would be implemented.
2. Alternatively wait until the June 2010 Release so that both BSCCo and the Transmission Company can implement the changes simultaneously.

The Group preferred the first option: implement the BSC changes as part of the February 2010 Release with the go-live date being set for the Transmission Company's release date on 16 March 2010.

4.3 Legal Text

The Modification Group has reviewed the text and agreed that it delivers the solution developed by the Group.

In terms of the overall approach, the equations in Section T and Annex T-1 have been simplified based on the set of new definitions. Some detail has been removed from Section T, and some (for example, NIV and CADL calculations) have been moved to Annex T-1. While drafting the text, the opportunity has been taken to produce a more logical construction of Section T as a whole.

Annex T-1 has been fully redrafted and broken into three parts. The first part essentially steps through the derivation of the stacks (or ranked sets) through providing definitions and identifying what would be tagged, flagged and classified. Part 2 provides the detail of how each of the flagging, tagging and classification actually occurs to obtain those ranked sets in Part 1. Part 3 identifies what would be reported.

There are also changes to Section Q to reflect the reporting requirements and Section C to include an obligation on BSCCo to produce an Imbalance Pricing Guidance document.

5 RATIONALE FOR PANEL'S RECOMMENDATIONS TO THE AUTHORITY

5.1 Panel's Consideration of Assessment Report

The Panel considered the P217 Assessment Report at its meeting on 12 June 2008. This section summarises the Panel's discussions in formulating its provisional recommendation for inclusion in the draft Modification Report. Details of the Report Phase consultation responses, the Panel's discussion of the responses and its final recommendation to the Authority can be found in Sections 5.2, 0 and 5.4 respectively.

Rationale for the Replacement Price

One Panel member questioned the reason for having a Replacement Price. Another Panel member answered that there were occasions when unpriced volume would be present in the NIV. In the current arrangements this unpriced volume is effectively ignored. However, under P217 it is proposed that a new approach is adopted. The Modification Proposal views that as the unpriced volume has entered the NIV, it can be considered to be resolving the short term energy imbalance of the transmission system. The flagging and classification processes have deemed the original price of this volume to be polluted. Therefore, an appropriate replacement price is required so that the entire NIV can be used in the pricing calculations.

There are various possible ways of deriving a replacement price. It could be considered that the price of the unpriced volume should be slightly higher than the most expensive priced volume, as this was the last action which was regarded as taken in merit. Any additional volume would be expected to be more expensively priced. However, this is difficult to do in practice as it would require an extrapolation. Another solution is that the unpriced volume should be assigned the same price as the most expensive priced volume. This is simpler and would lead to the Replacement Price being set using the marginal price of the all the priced actions. However, there is a chance with a marginal approach that a small unrepresentative action would set the Replacement Price, thus giving an unrepresentative Replacement Price. This is because the flagging might not always be perfect. In the interest of a robust solution, the Group therefore agreed by majority that the Replacement Price should be set by a volume weighted average of the 100MWh of most expensively priced actions. This volume has been designated the Replacement Price Average Reference (RPAR).

Simplicity vs. complexity

A member noted their disappointment that P217 made the Imbalance Pricing arrangements more complex. The member had been hoping that P217 would simplify the arrangements. The member viewed the complexity of the arrangements as a potential barrier for entry as new Parties would have difficulty understanding their Imbalance charges. The member suggested the current arrangements were complex enough and the P217 arrangements would add new stages (and therefore complexity) to the Imbalance Pricing arrangements.

Another member commented that they considered the P217 solution to be no more complex than the current arrangements. One member suggested that the calculation of the main Energy Imbalance Price was prone to complexity, due to the underlying complexity of the electricity market. In their view the concern was not complexity but appropriate complexity. The member noted that P217 clearly sets out what actions should be in the price and what actions should not be in the price, and that the increased complexity is balanced by improved clarity and a more representative main Energy Imbalance Price being generated.

One member commented that the Panel should be concerned with the increase in complexity with regards to assessing future Imbalance Pricing Modification Proposals. With each additional layer of complexity the main Energy Imbalance Price becomes more difficult to assess. There may come a point when, with growing complexity, the Assessment Procedure timetable required to complete all the necessary analysis becomes prohibitive. It may be better to focus on creating a set of arrangements which makes accuracy compromises in order to improve simplicity.

Impact of the increased transparency of constraint information under P217

One member noted their concern that the increase in transparency under P217 (through the publishing of flagging details) could lead to an increase in the potential for some Parties to mis-use the information. ELEXON answered that there were two opposing views about increased transparency. The first view is that increased information could lead to Parties in transmission constraint regions pricing more keenly. This could be particularly problematic with regards to transmission constraints that are transient and less well known to the industry. Keener pricing could lead to an increase in balancing costs for the Transmission Company. This view was held by a minority of Group members and consultation respondents. One member commented that Generators would be able to "hit and run" making it harder for authorities to initiate enforcement action. The

member also noted concern that it was assumed that self-policing would happen, although the incentives had not been properly considered. There is a possibility that the incentives to police and report would probably only fall on small Parties and demand-side companies (as they have nothing to gain by colluding on not reporting).

The counter view is that increased transparency would lead to more efficient pricing, improve competition, and would allow the industry to police itself from keen pricing activities. If a Party changed its pricing strategy on the basis of a Balancing Mechanism Unit (BMU) becoming flagged, that information would be available to all. This view was held by the majority of Group members and consultation respondents.

One member commented that when assessing an Imbalance Pricing Modification Proposal they consider whether there will be an impact on market power, beneficial or not. The electricity industry has inherent issues with market power as, regardless of size, generators will at times operate within a transmission constraint, and this locational advantage can be exploited by increasing prices of Bids and Offers. Other organisations have access to fast response peaking plant so are able to balance more easily. In the member's view the objective of an Imbalance Pricing Modification Proposal should be to reduce market power. Another member was concerned that P217 would reinforce the current market power situation.

One Panel member commented that they were less concerned about the impact of increased transparency of constraints under P217. Currently most generators and the larger Suppliers monitor the market closely. This allows them to quickly understand where transmission constraints occur. P217 would lead to greater transparency for all participants, not just those who have the resources to monitor the conditions at the moment. The member did not believe the increased transparency of constraints under P217 would have a significant impact on participant behaviour.

Consideration of alternatives other than a change in PAR

One member questioned why the Group developed an Alternative based around different PAR volumes rather than a more fundamental change to the way the constraint flagging processes worked. In their view the different volumes of PAR had distracted from the more important issue of the removal of constraint actions from the main Energy Imbalance Price. ELEXON explained that the Group considered a number of alternative solutions during the Assessment Procedure. These included:

- Removing NIV tagging;
- Setting the RPAR volume to 1MWh;
- Removing the classification process so that all flagged actions become unpriced;
- Reordering the processes so that NIV tagging occurred before classification; and
- And calculating the Replacement Price using an Ex-Post Unconstrained Schedule.

In each case the Group carefully considered the alternative, and in each case the majority of the Group believed the alternative was not better than the Proposed Modification. Within the constrained Assessment Procedure timetable the Group was only able to develop one P217 solution and so significant departures from that solution were not possible. During the Assessment Procedure it was found that a change to PAR could lead to significant changes in the main Energy Imbalance Price. The Group also noted the Authority decision of P194 and P205 which indicated that a reduction in system pollution could merit a reduction in PAR volume. On balance the majority of the Group believed the current PAR volume to be the better solution, but a minority favoured using a reduced PAR volume and a more marginal pricing approach. The Group viewed solutions using different PAR volumes to be a valid Proposed and Alternative Modification.

A member questioned why the Group did not consider a solution that could be implemented in time for winter 2008, particularly given current rising energy prices. A potential solution would be to flag constraint actions ex-post so that their price could be removed from the calculation of the main Energy Imbalance Price. ELEXON noted that the Terms of Reference had not set out that the Group should develop a solution

that could be in place by winter 2008, and that the focus was the removal of inappropriate transmission constraint actions. The solution proposed by the Panel member had not been suggested by any Group member or consultation respondent and so had not been developed by the Group.

Future review of the value of PAR and RPAR

A Panel member noted that the Group had suggested that a post-implementation review should be conducted on the P217 arrangements, should they be implemented. A number of the Group had theoretically preferred a more marginal PAR volume but believed that the current PAR volume should be implemented until actual data is available. The member questioned what could be learnt from actual data that the Group was not able to determine from their analysis. ELEXON explained that the majority of analysis had been conducted on data which had been flagged ex-post. Separately the Transmission Company had also carried out a control room simulation of the P217 solution over a number of days. Although the control room simulation suggested the SO would be able to flag to a relatively high degree of accuracy, it was not possible to completely confirm this until P217 was implemented and the effect on Parties' behaviour was observed. Once implemented, the Group viewed that data could be gathered for an extended period of time and a more accurate assessment of the appropriate volume of PAR could be made.

A Panel member commented that they agreed that a post-implementation review of the volumes of PAR and RPAR would be appropriate.

Reserve

One member noted that they would have liked to have seen reserve actions flagged by the System Operator. ELEXON commented that P217 did not propose any changes to the treatment of reserve. Owing to the tight timetable, and the Panel instruction to focus on the primary defect (transmission constraints), the Group had not developed any changes to the treatment of reserve as part of P217. The Group had briefly discussed potential changes to the treatment of reserve and also noted that P217 would put in place a constraint flagging framework that could be adapted by the future Modification Proposal to include reserve.

5.1.2 Applicable BSC Objectives

a) Proposed Modification

The **UNANIMOUS** provisional view of the Panel was that the Proposed Modification **WOULD NOT** better facilitate the achievement of any of the Applicable BSC Objectives when compared to the current Code baseline.

b) Alternative Modification

The **MAJORITY** provisional view of the Panel was that the Alternative Modification **WOULD** better facilitate the achievement of Applicable BSC Objectives (b) and (c) when compared to the current Code baseline and the Proposed Modification.

The **MINORITY** provisional view of the Panel was that the Alternative Modification **WOULD NOT** better facilitate the achievement of Applicable BSC Objectives (b) and (c) when compared to the current Code baseline and the Proposed Modification.

c) Better facilitates the Applicable BSC Objectives

As the arguments for the Proposed and the Alternative Modification are similar, the common arguments are listed below. The reasons for the Panel's preference of the Alternative over the Proposed can be found in 5.1.2 (e).

Applicable BSC Objective (b)

- P217 would reduce the impact of transmission constraints on main Energy Imbalance Price. This would increase the degree to which the energy costs of the SO in balancing the system are accurately reflected in Energy Imbalance Prices. Cost reflective Energy Imbalance Prices are essential to provide the correct incentives for Parties to balance. This would improve the efficiency of the operation of the Transmission System.

Applicable BSC Objective (c)

- P217 would produce more cost reflective Imbalance Prices – more accurately targeted at out of balance Parties, enhancing market competition;
- Under P217 there would be greater transparency of information for all participants; and
- The Imbalance Pricing Guidance document would increase industry understanding of Imbalance Pricing, reducing one barrier to entry.

The Panel agreed that the Proposed Modification would have a neutral impact on Applicable BSC Objective (a).

Overall the Panel believed that Applicable BSC Objective (d) was either not better facilitated, or that P217 would have a neutral impact on Applicable BSC Objective (d). The reason for this is that P217 would increase the complexity of the Imbalance Pricing arrangements. However, the majority of the Panel agreed that any disadvantages related to Applicable BSC Objective (d) would be more than compensated by the advantages of P217 in relation to Applicable BSC Objectives (b) and (c).

d) Does not better facilitate the Applicable BSC Objectives

A minority of the Panel believed P217 would not better facilitate Applicable BSC Objectives (b) and (c) for the following reasons:

Applicable BSC Objective (b)

- The publishing of transmission constraints could potentially reduce the efficiency of the operation of the Transmission System by leading some Parties to price more keenly; and
- P217 does not remove all system pollution from the calculation of the main Energy Imbalance Price, only transmission constraints.

Applicable BSC Objective (c)

- P217 does not explicitly exclude reserve from the main Energy Imbalance Price Calculation. A minority view of the Panel is that reserve should be flagged under P217. This would provide for more cost reflective prices.

A minority of the Panel believed the analysis conducted during the Assessment Procedure was incomplete and did not provide enough information in order to decide whether P217 better facilitated the Applicable BSC Objectives against the current Code baseline.

e) Reasons for the Panel's preference of the Alternative over the Proposed

- Retaining the PAR volume at 500MWh would reduce some of the uncertainty that surrounds the introduction of the new arrangements. Following implementation an operation review could be carried out to determine whether any change to the PAR volume would be required;
- It mitigates against the potential for some transmission constraints not to be correctly identified by the new methodology;

- The degree of transmission constraints entering the main Energy Imbalance Price would be better understood after a period of implementation; and
- The Proposed Modification would increase the volatility of the main Energy Imbalance Price. This could reduce competition, as smaller Parties who historically have been less able to balance would be subjected to high main Energy Imbalance Prices.

f) Provisional recommendation to the Authority

The Panel therefore agreed a majority provisional recommendation to the Authority that:

- The Proposed Modification **SHOULD NOT** be made; and that
- The Alternative Modification **SHOULD** be made.

5.1.3 Implementation Date

The Panel agreed with the Modification Group's views regarding the implementation.

5.1.4 Legal Text

The Panel reviewed the draft text and agreed that it addresses the defect identified by the Modification Proposal.

5.2 Results of Report Phase Consultation

6 responses were received to the Report Phase Consultation.

Q	Question	Yes	No	Neutral/Other
1	Do you agree with the Panel's provisional recommendation to the Authority contained in the draft Modification Report that Proposed Modification P217 should not be made?	4	2	0
2	Do you agree with the Panel's provisional recommendation to the Authority contained in the draft Modification Report that Alternative Modification P217 should be made?	5	1	0
3	Do you agree with the Panel's provisional recommendation concerning the Implementation Date for P217?	6	0	0
4	Do you agree with the Panel's view that the legal text provided in the draft Modification Report delivers the solution agreed by the Modification Group?	6	0	0

5.2.1 Views on the Panel's provisional recommendation that the Proposed Modification should not be made

The Report Phase consultation responses contained no new arguments in addition to those previously expressed during the Assessment Procedure.

The respondents that did not support the Panel recommendation to reject the Proposed Modification did so as they believed it to better facilitate the Applicable BSC Objectives when compared to the current baseline. One respondent noted that they believed the Proposed Modification better facilitated the Applicable BSC Objectives when compared to the Alternative Modification. The respondent believed that the Proposed

Modification would make main Energy Imbalance Prices more cost reflective when compared to the Alternative Modification due to it producing prices that are more marginal.

5.2.2 Views on the Panel's provisional recommendation that the Alternative Modification should be made

The Report Phase consultation responses contained no new arguments in addition to those previously expressed during the Assessment Procedure.

The respondent that did not support the Panel recommendation to approve the Alternative Modification did so for the following three reasons:

- Reserve related actions should be excluded from the main Energy Imbalance Price;
- The P217 solution would allow constraint flagged actions to retain their price in certain circumstances; and
- The more transparent reporting of transmission constraints under P217 could result in Parties using the information to manipulate the Transmission System.

5.2.3 Views on the Panel's provisional recommendation concerning the Implementation Date

Respondents agreed with the Panel's provisional recommendation regarding the proposed Implementation Date. Two respondents noted the extensive system development and testing that would be required to the Transmission Company's systems in order to implement P217.

5.2.4 Views on the legal text

Respondents agreed with the Panel view that the legal text delivers the solution agreed by the Modification Group.

In addition one Modification Group member provided further comments on the legal text. These comments were either typographical or for the purposes of clarification. No changes have been made to the nature or intent of the solution. These amendments can be found in Appendix 1.

ELEXON also completed a further review on the legal text and identified an additional default rule that would be required relating to the Replacement Price. Details of this additional rule can be seen in section 5.2.4.1 below.

ELEXON also identified:

- cross referencing changes required in Section G, U and V as a result of the proposed renumbering of Section T;
- an additional reporting requirement in Section V as a result of the P217 solution;
- some minor additions to Table X-3 of Annex X-2 to reflect the new terminology proposed by P217; and
- some minor clarifications and typographical corrections which reduce the potential for misinterpretation.

For full details of the proposed amendments see Appendix 1.

5.2.4.1 Additional default rule regarding the Replacement Price

An additional default rule has been defined for the Replacement Price. In the situation where the Market Price is undefined (i.e. where the denominator of the Market Price equation is equal to zero) an additional default rule has been added to state that the Replacement Price would default to zero. This approach is in

line with the Imbalance Pricing default rules which are defined in the current arrangements. The additional wording is seen as redlined below:

Annex T-1

15.2 (a) if there are no Unflagged System Actions in the NIV Tagged Ranked Set, the Replacement Buy Price shall be the Market Price. If the Market Price is undefined, the Replacement Buy Price shall be zero.

15.4 (a) if there are no Unflagged System Actions in the NIV Tagged Ranked Set the Replacement Sell Price shall be the Market Price. If the Market Price is undefined, the Replacement Sell Price shall be zero.

5.2.5 Additional comments

One respondent agreed with the Panel view that it is prudent to keep PAR at 500MWh initially, then assess and review the PAR value after 6 months of operational experience with further analysis to evaluate if a more appropriate PAR value between 100MWh and 500MWh could be found.

5.3 Panel's Consideration of Draft Modification Report and Consultation responses

Having considered the consultation responses, the Panel member's views, as to whether P217 better facilitated the Applicable BSC objectives, did not change from those initial views given when considering the Assessment Report.

One member commented that the draft Modification Report does not sufficiently highlight the positive elements of P217 Alternative Modification. In particular, the revised tagging process of P217 has been shown to remove a high proportion of transmission constraints. It would therefore, to some degree, remove the competitive distortion that having system actions in the main Energy Imbalance Price creates.

The Panel member noted that, whilst still supporting the Alternative Modification, they did so with slightly less enthusiasm due to their concern that P217 introduces a large amount of complex change. Further, the average impact on the main Energy Imbalance Price (for the historical calculation undertaken during the assessment) was shown to be small (for the Alternative Modification this was a reduction in SBP of 1.2% when SBP is the main price and an increase in SSP of 1.7% when SSP is the main price). This contrasts with Ofgem's Regulatory Impact Assessment for P211 and P212 (Reference 2) where the level of the defect indicated that a cost reflective price is likely to be significantly lower for SBP and higher for SSP. Thus, when looking at these historical recalculated averages, P217 Alternative Modification is only a small enhancement on the current arrangements. Further, P217 Proposed Modification would actually be detrimental as the historical price recalculation indicated that SBP would increase and SSP would decrease when compared to the current arrangements.

In contrast, another member commented that having the extra month to consider the mechanics of the P217 solution and the analysis had made them more comfortable with their initial recommendation to reject the Proposed Modification and approve the Alternative Modification.

5.4 Panel's Final Recommendation to the Authority

On the basis of the above discussions, the Panel therefore agreed a MAJORITY recommendation to the Authority that:

- The Proposed Modification SHOULD NOT be made; and
- The Alternative Modification SHOULD be made.

The Panel agreed the following recommended implementation approach for both the Proposed and Alternative Modifications:

- An Implementation Date of 05 November 2009 if an Authority decision is received on or before 30 October 2008; or 16 March 2010 if the Authority decision is received after 30 October 2008 but on or before 25 February 2009.

The Panel agreed the legal text for modifying the Code in respect of the Proposed and Alternative Modifications, as provided in Appendix 1.

6 TERMS USED IN THIS DOCUMENT

Other acronyms and defined terms take the meanings defined in Section X of the Code.

Acronym/Term	Definition
BSAD	Balancing Services Adjustment Data.
Energy balancing actions	Balancing actions taken purely to increase or decrease the level of generation or demand on the Transmission System.
Main Energy Imbalance Price	The Energy Imbalance Price applied to imbalances in the same direction as the system. Sometimes referred to as the main 'cash out price'.
NIV	Net Imbalance Volume.
PAR Volume	Price Average Reference Volume, the volume of actions that are used to set the Main Energy Imbalance Price.
Replacement Price	Under P217 a Replacement Price is assigned to unpriced actions in the NIV.
RPAR	Replacement Price Average Reference volume – a volume weighted average of the 100MWh of the most expensively priced actions remaining in the NIV. Used to calculate the Replacement Price.
Reverse Price	The price applied to imbalances in the opposite direction to the system. This is based on the market reference price derived from data submitted by Market Index Data Providers.
SBP	System Buy Price.
SO	System Operator.
SSP	System Sell Price.
STOR	Short Term Operating Reserve
System balancing actions	Balancing actions which are taken to balance an aspect of the Transmission System, but not because the system is short or long of energy. An example would be a set of actions taken in order to resolve a constraint on the physical flow of electricity caused by the finite capacity of the Transmission System.

7 DOCUMENT CONTROL

7.1 Authorities

Version	Date	Author	Reviewer	Reason for Review
0.1	17/06/08	Andrew Wright	Chris Rowell	For technical review
0.2	17/06/08	Andrew Wright	Sebastian Eyre	For Panel review
0.3	19/06/08	Andrew Wright	BSC Parties and other interested parties	For consultation
0.4	03/07/08	Andrew Wright	Chris Stewart	For technical review
0.5	03/07/08	Andrew Wright	Emrah Cevik	For quality review
0.6	04/07/08	Change Delivery	BSC Panel	For Panel decision
1.0	11/07/08	BSC Panel		For Authority decision

7.2 Attachments

Attachment 1 – Proposed Modification draft legal text

Attachment 2 – Alternative Modification draft legal text

Attachment 3 – P217 Assessment Report Panel presentation slides

Attachment 4 – P217 Report Phase Consultation responses

7.3 References

Ref.	Document Title	Owner	Issue Date	Version
1	P217 Assessment Report	P217 Modification Group	06/06/08	1.0
2	P211 and P212 Regulatory Impact Assessment: http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=98&refer=Markets/WhlMkts/CompandEff/CashoutRev	Ofgem	20/12/07	n/a

APPENDIX 1: LEGAL TEXT

Draft legal text for the Proposed Modification can be found in:

Attachment 1 – Proposed Modification final legal text

Draft legal text for the Alternative Modification can be found in:

Attachment 2 – Alternative Modification final legal text

Following the final reviews of the draft legal text, the following minor typographical and clarification changes were made during the Report Phase. These changes do not alter the nature or intent of the draft legal text and reduce the potential for misinterpretation.

Amendments to Section G

No.	Section	Proposed change	Reason for change
1	G3.2.1(d)	'Section T1.6' should read 'Section T1.7'	Corrected cross references.
2	G3.3.2(a)	'Section T1.6' should read 'Section T1.7'	Corrected cross references.
3	G4.2.1	'Section T1.6' should read 'Section T1.7'	Corrected cross references.

Amendments to Section Q

No.	Section	Proposed change	Reason for change
4	Q6.3.2(b)(ii) i)	'Additional Balancing Services Action' changed to 'Balancing Services Adjustment Action'	Typographical

Amendments to Section T

No.	Section	Proposed change	Reason for change
5	T1.11.1	<u>For the purposes of the Code the "Replacement Price Average Reference Volume" (RPAR) shall be 100 MWh.</u>	'MWh' did not appear as redlined in the Assessment Report draft legal text and it should do as it is a new inclusion.
6	T4.3A.2	' <u>Period</u> ' changed to 'Period'	'Period' appeared as redlined in the Assessment Report draft legal text. It should not be redlined as it is not an addition.
7	TT4.3A.2	In respect of each Settlement Period the "Market Price" (MP _j) is the amount determined as follows: $MP_j = \sum_s \{PXP_{sj} * QXP_{sj}\} / \sum_s \{QXP_{sj}\}$	Additional sentence added to clarify that if the Market Price is undefined the default

No.	Section	Proposed change	Reason for change
		<p>where Σ_s represents the sum over all Market Index Data Providers. <u>If $\Sigma_s \{QXP_{sj}\} = 0$, the Market Price for the Settlement Period shall be undefined, and the provisions of paragraph 4.4.4 shall apply.</u></p>	<p>rules of T4.4.4 apply.</p>
8	T4.4.2B – 4.4.4	<p>$TQUAO_j = \Sigma_i \Sigma^n QAO_{ij} - \Sigma_i \Sigma^n QAPQ_{ij}$ where Σ_i represents the sum over all BM Units and Σ^n represents the sum over all Bid Offer Pair Numbers for the BM Unit.</p> <p>4.4.2C – In respect of each Settlement Period, the System Total Un-Priced Accepted Bid Volume will be determined as follows:- $TQUAB_j = \Sigma_i \Sigma^n QAB_{ij} - \Sigma_i \Sigma^n QAPB_{ij}$ where Σ_i represents the sum over all BM Units and Σ^n represents the sum over all Bid Offer Pair Numbers for the BM Unit.</p> <p>4.4.3 – In respect of each Settlement Period, some of the accepted Bids and accepted Offers may be defined as Arbitrage Accepted Bids and Arbitrage Accepted Offers respectively in accordance with the provisions in Annex T-1, and all such Arbitrage Accepted Bids and Arbitrage Accepted Offers shall be disregarded for the purposes of the calculation of energy imbalance prices.</p> <p>4.4.4 – In respect of each Settlement Period:</p> <p>(a) – some or all of the accepted Bids and accepted Offers may be defined as NIV Tagged Bids and NIV Tagged Offers respectively in accordance with the provisions in Annex T-1;</p> <p>(b) – some or all of the Buy Price Volume Adjustment (Energy) (EBVA) and Sell Price Volume Adjustment (Energy) (ESVA) may be defined as NIV Tagged EBVA and NIV Tagged ESVA respectively in accordance with the provisions in Annex T-1;</p> <p>(c) – some or all of the Buy Price Volume Adjustment (System) (SBVA) and Sell Price Volume Adjustment (System) (SSVA) may be defined as NIV Tagged SBVA and NIV Tagged SSVA respectively in accordance with the provisions in Annex T-1;</p> <p>(d) – some or all of the System Total Un-priced Bid Volume and System Total Un-priced Offer Volume may be defined as NIV Tagged System Total Un-priced Bid Volume and NIV Tagged System Total Un-priced Offer Volume respectively in accordance with the provisions in Annex T-1.</p>	<p>This section of text was meant to have appeared as deleted in the Assessment Report draft legal text. It would not be required under P217.</p>

No.	Section	Proposed change	Reason for change
9	T4.4.2	<p>The paragraph after the equation for SBP_j in 4.4.2(a) should have the words 'within the Settlement Period' added to read:</p> <p>Where Σ^i represents the sum over all BM Units, Σ^n represents the sum over all accepted Offers in the Final Ranked Set of System Buy Actions, Σ^k represents the sum over all Acceptances <u>within the Settlement Period</u>, and Σ^m represents the sum over all Balancing Services Adjustment Buy Actions in the Final Ranked Set of System Buy Actions</p>	Clarity added to the paragraph to show that Σ^k represents the sum of all acceptances within a Settlement Period
10	T4.4.2(b)	QABSB changed to QBSAB	Typographical error in the acronym
11	T4.4.3	<p>The paragraph after the equation for SSP_j in 4.4.3(a) should have the words 'within the Settlement Period' added to read:</p> <p>Where Σ^i represents the sum over all BM Units, Σ^n represents the sum over all accepted Bids in the Final Ranked Set of System Sell Actions, Σ^k represents the sum over all Acceptances <u>within the Settlement Period</u>, and Σ^m represents the sum over all Balancing Services Adjustment Sell Actions in the Final Ranked Set of System Sell Actions</p>	Clarity added to the paragraph to show that Σ^k represents the sum of all acceptances within a Settlement Period

Amendments to Annex T-1

No.	Section	Proposed change	Reason for change
12	T-1 1.2(f)	a "Ranked Set" is a set of System Actions ranked in accordance with the further provisions of this Part 1; <u>and references to the Ranked Sets are to the two Ranked Sets (of System Buy Actions and System Sell Actions respectively).</u>	Further clarification provided regarding ranked sets. This paragraph sets out that references to Ranked Sets are references to two Ranked Sets (a Buy set and a Sell set).
13	1.3	Renumbered from 1.2 to 1.3	Typographical error. Two 1.2 labelled paragraphs appeared in the Assessment Report draft legal text.
14	1.3	In this Annex T-1, references to summation over System Sell Actions or System Buy Actions are to summation (in relation to accepted Offers or accepted Bids) over all BM Units, Offers or Bids and Acceptances, and (in relation to Balancing Services Adjustment Actions) over all Balancing Services Adjustment Actions.	The words 'Offers or Bids' deleted as 'Acceptances' is already referred to.
15	1.4	Renumbered from 1.3 to 1.4	See change 8 above.

No.	Section	Proposed change	Reason for change
16	1.4	In any provision of this Annex T-1, a System Action is "Flagged" where <u>(in relation to the steps in paragraphs 3, 4 and 5)</u> it is a First-Stage Flagged System Action, or <u>(in relation to the step in paragraph 8)</u> a Second-Stage Flagged System Action; and otherwise <u>(in relation to the relevant such step(s))</u> is "Unflagged".	Clarification to the use of the terms 'First Stage Flagged Action', 'Second Stage Flagged Action' and 'Unflagged'. This clarification has been added as the original wording could have been interpreted as meaning that an action is classified as one of these three terms which are mutually exclusive and unchanging. Where as an action can change from being one that is flagged to one which is unflagged (as is set out in subsequent paragraphs).
17	1.5	<u>Where (pursuant to any provision of this Annex T-1) a fraction of a System Action is to be defined in a particular way, the System Action shall be treated as if it were two System Actions comprising respectively such fraction, and the remainder, of the original System Action, and respectively defined, and not defined, in that way.</u>	New paragraph to describe the situation where an action is split into two fractions which are defined in different ways.
18	2.1 (b)	Highest priced expensive -first	'expensive' deleted as it is not required. The term 'highest priced first' sets out the correct ranking order.
19	2.4 (a)	each of the <u>two</u> Ranked Sets of System Actions will be re-established (and where relevant the System Actions renumbered) on the basis of such step	Further clarification provided regarding ranked sets. See change 7 above.
20	2.5	... but subject to the further provisions of paragraphs 213.5 , 314.2(f) and 516.1(e) of in Part 2.	Corrected cross references.
21	4.4	The Ranked Sets of System Actions following the application of this paragraph 4 are the SO-Flagged Ranked Set s of System Actions.	Typographical – initially referred to 'Set'. There are two ranked sets so wording changed to 'Sets'.
22	5.2	Each accepted Offer and accepted Bid for which the Acceptance was an Emergency Acceptance classified by the Transmission Company as an 'Emergency-Flagged Acceptance ' shall be a First-Stage Flagged System Action.	Defined term is 'Emergency-Flagged' not 'Emergency Flagged Acceptance'.
23	5.3	The Ranked Sets of System Actions following the application of this paragraph 5 are the Emergency Flagged Ranked Set s of System Actions.	Typographical – initially referred to 'Set'. There are two ranked sets so

No.	Section	Proposed change	Reason for change
			wording changed to 'Sets'.
24	6.4 and 6.5	QABSB ^m _j and QABSS ^m _j changed to QBSAB ^m _j and QBSAS ^m _j	Typographical.
25	6.5	'De Minimis Tagged System Buy Action' should be 'De Minimis Tagged Sell Action'	Typographical.
26	13.2	QSS ^g _j Changed to QSS ^g _j	Typographical, subscripted 'i' removed.
27	13.2 (b)	SBAP ^w _j	Typographical, erroneous 'B' removed from the acronym.
28	13.2 (c)	Then for all v <u>in such ranked set</u> such that	Addition of 'in such ranked set' to emphasise that there are two ranked sets.
29	13.5	If the completed application of paragraphs <u>213.1</u> to <u>213.4</u> inclusive (the 'initial calculation') would result in there being any System Sell Action or ranked System Buy Action which:	Corrected cross references.
30	13.5 (b)	has the same price ((including a NULL price)) other than merely by virtue of being a fraction $(1 - \gamma)$ or $(1 - j)$ pursuant to the initial calculation) as a System Sell Action or (as the case may be) ranked System Buy Action which is Arbitrage Tagged,	NULL priced actions should not be Arbitrage tagged. In any case if the situation arose where a NULL priced action could be Arbitrage tagged then there would be no priced volume to set the price and the main Energy Imbalance Price would default to the Market Price.
31	14.2	In respect of each Settlement Period, System Actions <u>in the</u> Classified Ranked Sets will be defined as NIV Tagged in the following way.	'in the' added to clarify the sentence.
32	17	Definitions of 'Period Accepted Offer Volume' and 'Period Accepted Bid Volume' added to Part 3 of Annex T-1	Defined terms not included in the Assessment Report legal text.

Amendments to Section U

No.	Section	Proposed change	Reason for change
33	U2.5.8(a)	'Section T1.5A.7(a)' should read 'Section T1.6.7(a)'	Corrected cross references.

Amendments to Section V

No.	Section	Proposed change	Reason for change
34	V2.5.1(a)	'Section T1.5A' should read 'Section T1.6'	Corrected cross references.
35	V2.5.2(b)	'Section T1.5A' should read 'Section T1.6'	Corrected cross references.
36	Annex V-1 Table 1	Insert 'Indicative Period Accepted Bid and Offer Volumes (IQAB ^{kn} _{ij} and IQAO ^{kn} _{ij}) – value for each SP' in Table 1 of Annex V-1	P217 introduces additional BMRS reporting requirements and these have been reflected in Annex V-1.

Amendments to Annex X-2 Table X-2

37.

Balancing Services Adjustment Buy Sell Volume	QBSAS ^m _j	MWh	The Balancing Services Adjustment Volume in respect of a Balancing Services Adjustment Buy Sell Action
---	---------------------------------	-----	--

Typographical correction.

38.

Flagged (and Unflagged)			Have the meanings given to those terms in paragraph 1. 34 of Annex T-1
-------------------------	--	--	---

Corrected cross reference.

39.

Market Price	MP _j		Has the meaning given to that term in Section T4.3A.2
--------------	-----------------	--	---

The above change is that the 'j' should be subscripted.

Amendments to Annex X-2 Table X-3

40. Table X-3 has been updated to include new acronyms and remove redundant acronyms.

APPENDIX 2: PROCESS FOLLOWED

Copies of all documents referred to in the table below can be found on the BSC Website at: <http://www.elexon.co.uk/changeimplementation/ModificationProcess/modificationdocumentation/modProposalsView.aspx?propID=237>

Date	Event
19/10/2007	Modification Proposal raised by RWE Npower
09/11/2007	IWA presented to the Panel
12/11/2007	First Definition Procedure Modification Group meeting held
19/11/2007	Second Definition Modification Group Meeting
14/12/2007	Third Definition Modification Group Meeting
19/12/2007	Definition Consultation issued
10/01/2008	Definition Consultation Responses returned

Date	Event
16/01/2008	Fourth Definition Modification Group Meeting
01/02/2008	Definition Report presented to the Panel
06/02/2008	First Assessment Modification Group Meeting
27/02/2008	Second Assessment Modification Group Meeting
29/02/2008	P211 Authority Decision - Deferred
19/03/2008	Third Assessment Modification Group Meeting
09/04/2008	Fourth Assessment Modification Group Meeting held
18/04/2008	Requirements Specification issued for BSC Agent, Transmission Company, Party and BSCCo Impact Assessment
02/05/2008	Requirements Specification Impact Assessment Responses returned
06/05/2008	Fifth Assessment Modification Group Meeting
08/05/2008	Assessment Consultation document issued to BSC Agent, Transmission Company, Party and BSCCo for consultation
21/05/2008	Assessment Consultation Responses returned
23/05/2008	Sixth Assessment Modification Group Meeting
06/06/2008	Assessment Report issued to the BSC Panel
12/06/2008	Assessment Report presented to the BSC Panel
18/06/2008	Draft Modification Report issued for Report Phase consultation
02/07/2008	Draft Modification Report Consultation responses to be returned
04/07/2008	Draft Modification Report issued to the BSC Panel
10/07/2008	Draft Modification Report presented to the BSC Panel

ESTIMATED COSTS OF PROGRESSING MODIFICATION PROPOSAL⁵

Meeting Cost	£5,000
Legal/Expert Cost	£12,500 ⁶
Impact Assessment Cost	£10,000
ELEXON Resource	194 man days £44,690

The above costs are the same as was reported in the P217 Assessment Report.

⁵ Clarification of the meanings of the cost terms in this appendix can be found on the BSC Website at the following link:
http://www.elexon.co.uk/documents/Change_and_Implementation/Modifications_Process_-_Related_Documents/Clarification_of_Costs_in_Modification_Procedure_Reports.pdf.

⁶ The above costs refer specifically to the Assessment Procedure of P217. The costs include the provision of external legal advice from DWS (£12,500). This is required due to the potential complexity of the solution of P217. It should be noted that this cost is subject to change depending on the final solution and whether an Alternative Modification is developed.

APPENDIX 3: ASSESSMENT REPORT

The P217 Assessment Report can be found on the BSC Website at: [ELEXON - Modification Proposal P217](#)

The Assessment Report includes:

- The conclusions of the Modification Group regarding the areas set out in the P217 Terms of Reference;
- Details of the Group's membership;
- The full results of the Assessment Procedure impact assessment;
- Full copies of all responses to the Assessment Procedure consultation; and

APPENDIX 4: REPORT PHASE CONSULTATION RESPONSES

Full copies of the consultation responses are attached as a separate document, Attachment 4.