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

Prepared by P217 Modification Group

For Decision	Date of Issue	**28 January 2008**	Version Number	**1.0**
For Attention Of	**BSC Panel**			

Overview and Purpose of Document:

The purpose of this Definition Report is to outline the set of clear principles for the P217 solution that the P217 Modification Group (the 'Group') agreed would enable focused assessment and analysis during the Assessment Procedure.

P217 seeks to revise the current tagging process of the main Energy Imbalance Price methodology. The main Energy Imbalance Price is that which is paid, or received, by Parties who are in imbalance in the same direction as the system. The proposed revised process would enable Bid Offer Acceptances (BOAs) and forward trades to be defined as 'system', 'energy plus system' or 'energy' actions, based on the primary reason for the action. A process of System Operator (SO) 'flagging', and then BSC 'tagging' would be introduced in order to define the action. 'System' actions would be included in the calculation of Energy Imbalance Prices as un-priced volumes, so as to remove the price effect of 'system' actions from Energy Imbalance Prices, whilst 'energy' and 'energy plus system' actions would be included as priced volumes. No change is proposed to the reverse price which is based on the market price. Rules for determining how each action is flagged, and then tagged, would be contained within a new BSC 'Tagging Methodology Statement'.

Along with the introduction of a BSC Tagging Methodology Statement, a new BSC 'Replacement Price Methodology Statement' would also be introduced. A replacement price would be required on the occasions where actions tagged as 'system' (and therefore unpriced) also contributed to resolving net energy imbalance, and therefore should be considered in the calculation of the main Energy Imbalance Price.

Finally, the level of the Price Average Reference (PAR) volume is to be re-examined in light of the introduction of the BSC Tagging Methodology Statement and the BSC Replacement Price Methodology Statement.

Modification Group's Recommendations

The P217 Modification Group invites the Panel to:

- **AGREE that P217 should proceed to the Assessment Procedure;**
- **AGREE the Assessment Procedure timetable (of 4.5 months) such that an Assessment Report should be completed and submitted to the Panel for consideration at its meeting of 12 June 2008; and**
- **AGREE any amendments to the Modification Group Terms of Reference for the Assessment Procedure.**

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Summary Of Impacted Parties And Documents

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

Please note that this table represents a summary of the results of BSCCo's initial assessment as contained in the P217 Initial Written Assessment (IWA). A full impact assessment will be undertaken during the Assessment Procedure.

Parties	
Distribution System Operators	☐
Generators	☑
Interconnectors	☑
Licence Exemptable Generators	☑
Non-Physical Traders	☑
Suppliers	☑
Transmission Company	☑
Party Agents	
Data Aggregators	☐
Data Collectors	☐
Meter Administrators	☐
Meter Operator Agents	☐
ECVNA	☐
MVRNA	☐
BSC Agents	
SAA	☑
FAA	☐
BMRA	☑
ECVAA	☐
CDCA	☐
TAA	☐
CRA	☐
SVAA	☐
Teleswitch Agent	☐
BSC Auditor	☐
Profile Administrator	☐
Certification Agent	☐
Other Agents	
Supplier Meter Registration Agent	☐
Unmetered Supplies Operator	☐
Data Transfer Service Provider	☐

BSC Sections	
A	☐
B	☐
C	☐
D	☐
E	☐
F	☐
G	☐
H	☐
I	☐
J	☐
K	☐
L	☐
M	☐
N	☐
O	☐
P	☐
Q	☑
R	☐
S	☐
T	☑
U	☐
V	☑
W	☐
X	☑
Z	☐

Code Subsidiary Documents	
BSC Procedures	☑
Codes of Practice	☐
BSC Service Descriptions	☑
Party Service Lines	☐
Data Catalogues	☑
Communication Requirements Document	☐
Reporting Catalogue	☑
Core Industry Documents	
Ancillary Services Agreement	☐
Data Transfer Services Agreement	☐
Distribution Code	☐
Distribution Connection and Use of System Agreement	☐
Grid Code	☐
Master Registration Agreement	☐
Supplemental Agreements	☑
Use of Interconnector Agreement	☐
BSCCo	
Internal Working Procedures	☑
BSC Panel/Panel Committees	
Working Practices	☑
Other	
Market Index Data Provider	☐
Market Index Definition Statement	☐
Connection and Use of System Code	☐
System Operator-Transmission Owner Code	☐
Transmission Licence	☐

1 Executive Summary

The key conclusions of the P217 Modification Group ('the Group') are outlined below.

The Group:

- **AGREED** the high level principles for the Tagging Methodology Statement as set out in Section 3.3.1;
- **AGREED** Balancing Services Adjustment Data (BSAD) should be included in the main Energy Imbalance Price calculation;
- **AGREED** BSAD should in principle be dis-aggregated. This would increase transparency and it would create a consistent approach to all trades (Bid Offer Acceptances (BOAs) and forward trades);
- **AGREED** that only the price and volume of dis-aggregated BSAD should be published;
- **AGREED** Option fees (via the Buy Price Adjuster (BPA) and Sell Price Adjuster (SPA)) should continue to be included in the Energy Imbalance Price calculation;
- **AGREED** the current treatment of Applicable Balancing Services Volume Data (ABSVD) and Non-Balancing Mechanism (Non-BM) Reserve volumes should remain the same. Preferably, these would be incorporated into the main Energy Imbalance Price calculation but, the ex-post calculation of ABSVD and Non-BM Reserve volume would detrimentally impact prompt prices;
- **AGREED** the Replacement Price Methodology should determine prices for unpriced volumes that appear in the Net Imbalance Volume (NIV). The Replacement Price is to be based on a volume weighted average of the most expensive 'X' MWh of non-NIV tagged 'energy' and 'energy plus system' acceptances. The value of 'X' will be determined during the Assessment Procedure;
- **AGREED** the main Energy Imbalance Price should be based on the current concept of a Price Average Reference (PAR) volume, but the MWh volume should be reviewed during the Assessment Procedure;
- **AGREED** the PAR value should be less than or equal to 500MWh but should not be so small as to allow imbalance prices to be unduly impacted by actions which are not captured by the improved tagging methodology;
- **AGREED** the BSAD Methodology Statement would be impacted by P217;
- **AGREED** the Balancing Principles Statement, National Grid's Transmission License conditions and the ABSVD Methodology Statement would not be impacted by P217;
- **AGREED** to conduct a simulation of the SO's constraint tagging to be undertaken during the Assessment Procedure, with the understanding that such an exercise may have certain limitations in scope;
- **AGREED** historic data analysis should be conducted for the tagging principles, main Energy Imbalance Price and replacement price. This should include days of system stress;
- **AGREED** analysis into the impacts of P217 on cash-flows and the impacts on different classes of Parties should be conducted;

- **AGREED** analysis is required to determine the size of the 'chunk' for both the Replacement Price and the main Energy Imbalance Price. This could be an updated set of analysis undertaken for determining the level of PAR under P194 and P205;
- **AGREED** analysis on dis-aggregation of BSAD is required. Analysis should also be conducted on the number of times a single Balancing Mechanism Unit trade makes up the entire BSAD component;
- **AGREED** alternate methods of incorporating Option fees in the calculation of the main Energy Imbalance Price should be considered;
- **AGREED** not to conduct behavioural analysis for the Assessment Procedure; and
- **AGREED** that the remaining areas of the Terms of Reference should receive consideration as part of an Assessment Procedure;

A description of the Modification Proposal as developed by the Group is provided in Section 3. Further information regarding the Group's discussions of the areas set in the P217 Terms of Reference relating to the Definition Procedure can be found in Section 4, with the remaining areas for the Assessment Procedure set out in Section 5. A copy of the Group's full Terms of Reference is contained in Appendix 1, whilst a summary of the responses to the Definition Procedure consultation can be found in Appendix 2.

No impact assessment was commissioned during the Definition Procedure. For the results of BSCCo's initial assessment of the impacts of the proposal, please refer to the P217 IWA.

2 Background

2.1 Current Arrangements

Under the current baseline, actions taken by the System Operator (SO) to balance Supply and Demand for a Settlement Period set the main Energy Imbalance Prices (System Buy Price (SBP) when the system is 'short' and System Sell Price (SSP) when the system is 'long').

The current methodology for determining system length (whether the system is 'long' or 'short') was introduced under Approved Modification P78 'Revised Definitions of System Buy Price and System Sell Price'. This was subsequently amended under Approved Modifications P194 'Revised Derivation of the Main Energy Imbalance Price' and P205 'Increase in PAR level from 100MWh to 500MWh' so that the main Energy Imbalance Price is based on the volume weighted average of the most expensive 500MWh of priced balancing actions remaining after certain actions are 'tagged out' for various reasons. Overall system imbalance over a half-hour ('Net Imbalance Volume' or 'NIV') is currently determined by summing the Pre-Gate Closure trades (reflected in Balancing Services Adjustment Data or 'BSAD') with the Bids and Offers accepted by the SO[1] in the Balancing Mechanism. The system is 'long' when the volume of Bids and / or Relevant Balancing Services sales predominates and the system is 'short' when the volume of Offers and/or Relevant Balancing Services purchases predominates.

The following information contributes to the calculation of the main Energy Imbalance Price[2]

- Actions taken within the Balancing Mechanism to increase the total energy on the system (Accepted Offers), or actions within the Balancing Mechanism to decrease the total energy on the system (Accepted Bids); and
- Relevant Balancing Services provided outside the Balancing Mechanism, represented via BSAD.

When the system is estimated by the method above to be short of energy, the main price (i.e. SBP as the price applied to imbalances in the same direction as the system) is based on the volume weighted average of the most expensive[3] 500MWh[4] of priced balancing actions (accepted Offers and BSAD) remaining, following the application of the following rules:

- **De Minimis:** Individual accepted half-hourly Bid and Offer Volumes below a defined threshold (1 MWh) are excluded from the price calculation completely. This approach is intended to remove potential 'false' actions created due to the finite accuracy of the systems used to calculate Bid and Offer Volumes;
- **Arbitrage:** Where the price of an accepted Offer Volume is less than the price of an accepted Bid Volume, the matching opposing volumes deliver a financial benefit with no obvious

[1] Note that the BSAD methodology does not explicitly exclude balancing services actioned after Gate Closure, but it is current practice to exclude them.

[2] 'Energy Imbalance Price' is synonymous with 'Cash Out Price'. Whilst 'Cash Out Price' is used in the title of the modification, current convention for modifications is to use the term 'Energy Imbalance Price'.

[3] It should be noted that 'most expensive' should, in this context, be considered in relation to the benefit of the System. Offers are bought by the System for an increase in energy, thus the 'most expensive' will be the highest priced Offer. Since Bids are paid to the System by Parties for a reduction in energy, the most expensive Bid will be the lowest priced Bid. A negative Bid price will be expensive to the System, as the System is paying (rather than being paid) to reduce energy. Similarly, when using the term 'most expensive', it should be considered in this context.

[4] This is known as the Price Average Reference (PAR) volume. PAR is currently 500MWh. When the system has excess energy (said to be 'long') then the main price (SSP) will be based on the volume weighted average of the most expensive 500MWh of priced balancing actions (accepted Bids and Energy BSAD) remaining following the application of the tagging mechanism rules. If the NIV is less than 500 MWh then no volumes will be PAR tagged.

balancing benefit. The System Operator effectively facilitates a market trade rather than an obvious balancing action. In this case, the corresponding volumes are excluded from the price calculation completely;

- **CADL:** Acceptance Volumes associated with Acceptances of short duration (below the Continuous Acceptance Duration Limit (CADL) currently 15 minutes) are treated as un-priced[5] in the price calculation;

- **BSAD:** The SO determines whether Relevant Balancing Services will be treated as priced or un-priced. Priced and unpriced components of BSAD are each aggregated to net[6] values for use in the BSC;

- **Emergency Instructions:** On the determination of the SO, Accepted Bids and Offers associated with Emergency Instructions may be tagged as Excluded Emergency Acceptances and therefore treated as un-priced for the purpose of Energy Imbalance Price calculations; and

- **NIV Tagging:** Following application of the rules outlined previously, the Net Imbalance Volume (NIV) tagging process is applied to determine which of the priced actions will be subject to PAR tagging.

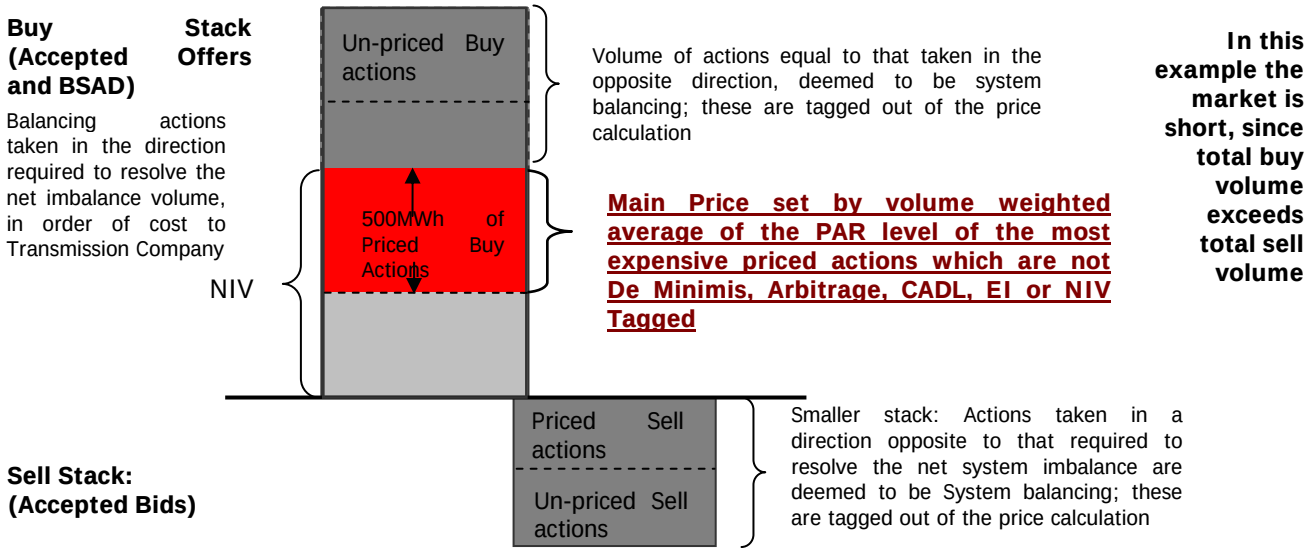
These processes are collectively known as the 'tagging mechanism'. The De-Minimis, CADL, emergency instructions and NIV Tagging functions are the processes to remove the prices of BOAs which have been determined as those that should not be included in the main Energy Imbalance Price calculation, and therefore not targeted on those out of balance

The main Energy Imbalance Price also incorporates a Transmission Loss Multiplier (TLM) and the price adjusters (BPA and SPA). The TLM is a factor applied to Balancing Mechanism (BM) Units BOAs in order to adjust for transmission losses. A summary of how BPA and SPA are determined, and how they are incorporated into the main Energy Imbalance Price is included in Attachment 1. A full description is given in NGC's Balancing Services Adjustment Data Methodology statement.

In addition, trades undertaken on power exchanges feed into market prices provided by Market Index Data Providers (or a single provider, as it currently stands). The reverse Energy Imbalance Price (i.e. the price applied to imbalances in the opposite direction to the system) is based on the market price derived from data[7] submitted by Market Index Data Providers.

[5] Un-priced volumes contribute to the determination of which actions set the main Energy Imbalance Price, however the costs of these actions are not included in the main Energy Imbalance Price.
[6] This means that in any Settlement Period there can only be one non-zero volume of Energy BSAD (EBVA or ESVA), and one non-zero volume of System BSAD (either SBVA or SSVA).
[7] The Market Index Data Statement (MIDS) defines which agents can submit the required data, the data that is to be submitted and parameters used to calculate the submitted data.

Figure 1: Example of the Existing Arrangements main Energy Imbalance Price Calculation (Short System)



2.2 *Current open Modifications*

There are currently two pending Modification Proposals that seek to amend the calculation of the main Energy Imbalance Prices, which are both with the Authority for determination. These are P211 'Main Imbalance Price based on Ex-Post Unconstrained Schedule' and P212 'Main Imbalance Price based on Market Reference Price'.

P211 was raised on 16 April 2007 by EDF Energy. P211 proposes to amend the calculation of the main Energy Imbalance Price such that when the market is short and SBP is the main Energy Imbalance Price, then this is to be based on the least expensive Offers that the SO could have utilised on an unconstrained system[8]. Conversely, when the system is long and SSP is the main Energy Imbalance Price, then this is to be based on the least cost Bids that the SO could have utilised on an unconstrained system. This would be achieved by creating a new Ex-Post Unconstrained Schedule (EPUS). PAR tagging would then be applied to the EPUS to ensure that only the most expensive 500MWh of Bids or Offers that the SO could have utilised to resolve the energy imbalance in an unconstrained system are used to set the main price. The 'reverse' price would remain unchanged. P211 was issued to the Authority for decision on 5 October 2007 with a Panel recommendation that the Proposed Modification should not be made (Reference 1).

P212 was raised on 27 April 2007 by BizzEnergy. P212 seeks to replace part of the current Energy Imbalance Price methodology with an alternative method for determining the main Energy Imbalance Price. P212 proposes that the main Energy Imbalance Price is the market price increased by a fixed percentage (5%) when the system is short, or the market price decreased by a fixed percentage (5%) when the system is long. No change is proposed to the reverse price which is based on the market price. P212 was issued to the Authority for decision on 17 December 2007 with a Panel recommendation that the Proposed Modification should not be made (Reference 2).

[8] In this context, an unconstrained system is a transmission system without constraints on the physical flow of electricity, and balancing services without constraints on the notice, speed, frequency or granularity of delivery.

3 Description of Modification

3.1 Modification Proposal

P217 was raised on 19 October 2007 by RWE Npower ('the Proposer'). P217 seeks to revise the current tagging process of the main Energy Imbalance Price methodology that would enable BOAs and forward trades to be defined as a 'system', 'energy plus system' or 'energy' actions, based on the primary reason for the action. A process of SO 'flagging' and then BSC 'tagging' would be introduced in order to define the actions. 'System' actions would be included in the calculation of the main Energy Imbalance Prices as un-priced volumes, whilst 'energy' and 'energy plus system' would be included as priced volumes. The main purpose of the new flagging and tagging process would be to remove the price influence of 'system' related actions in the main Energy Imbalance Price. The details of this process would be contained in a new BSC document the 'Tagging Methodology Statement'.

Along with the introduction of a BSC Tagging Methodology Statement, a new BSC Replacement Price Methodology Statement would also be introduced. A replacement price would be required on the occasions where actions tagged as 'system' (and therefore unpriced) also contributed to resolving the net energy imbalance, and therefore should be considered in the calculation of the main Energy Imbalance Price. The Group agreed that the Replacement Price should be derived from a chunky marginal set of 'energy' actions.

Finally, the PAR level is to be re-examined in light of the introduction of the BSC Tagging Methodology Statement and the BSC Replacement Price Methodology Statement. The Group agreed that the current PAR approach should be retained but should be less than or equal to 500MWh, but also not so small as to be impacted by unrepresentative BOAs.

3.2 Introduction of Flagging and Tagging Process

P217 introduces a new process for determining what is to be priced and unpriced in the main Energy Imbalance Price calculation. In concept, it will define each BOA as a 'system', 'energy plus system', or 'energy' action. There will be a two step process to do this[9].

The first step is to identify and 'flag' all those BOAs that could potentially be a 'system' action. This includes all those BOAs subject to the CADL, Emergency Instruction, and a new transmission constraint identification process (see section 4.1.5). Any BOA not flagged is considered 'energy'.

The second step is to 'tag' the BOAs identified during the 'flagging' process as either priced or unpriced. This is done based on a mechanistic set of rules (see section 4.1.5). Any BOA that is 'flagged' but not 'tagged' is defined as 'energy plus system' and will remain priced. Any 'flagged' and then 'tagged' action is defined as 'System' and is unpriced for the calculation of the main Energy Imbalance Price.

Note that the flagging and tagging process will lead to minor changes and ordering to the current tagging process. Section 4.1.10 explains the order in which it is envisaged that the flagging and tagging process will occur under P217.

[9] It is simpler to think of this as a two step process, however, the Central system solution may not require to separate the steps out so explicitly for an efficient solution.

3.3 Proposed Modification – agreed principles

3.3.1 Principles governing the Tagging Methodology Statement

The Group:

- **AGREED** using CADL (with current 15 minute duration) would be a pragmatic way to identify and tag intra-half hour short duration actions. CADL should be retained in a P217 solution but modified such that the methodology should only exclude BOAs where these would not normally have been taken to resolve energy imbalances;
- **AGREED** De Minimis and Arbitrage tagging should be retained as currently occurs;
- **AGREED** as a pragmatic approach subject to further development by the SO, that BM Units from which balancing actions are likely to be required to resolve transmission constraints should be identified by an ex-ante methodology. Actions subsequently taken from these BM Units would be flagged for the purposes of ex-post reporting imbalance price setting. This methodology should only exclude BOAs where these would not normally have been taken to resolve energy imbalances;
- **AGREED** that the 'system', 'energy plus system' and 'energy' tags of accepted Bids, Offers and dis-aggregated BSAD should be published ex-post;
- **AGREED** where reserve has been utilised and is not tagged out through CADL, this should be included in the main Energy Imbalance Price calculation (i.e. considered as either 'energy' or 'energy plus system').
- **AGREED** that Option fees paid by the SO for reserve should be included in the main Energy Imbalance Price calculation;
- **AGREED** MaxGen[10] should be considered an 'energy action' to be included in the main Energy Imbalance Price calculation, subject to normal tagging rules; and
- **AGREED** that in situations where system flagged actions have a lower price than an 'energy' action, those actions should be classified as 'energy plus system' rather than 'system' and should remain as priced acceptances.

3.3.2 Principles for the treatment of BSAD, ABSVD, demand side reserve actions and imbalance on the SO accounts

The Group:

- **AGREED** BSAD should be included in the main Energy Imbalance Price calculation;
- **AGREED** BSAD should in principle be disaggregated. This would increase transparency and it would create a consistent approach to all trades (BOAs and forward trades);
- **AGREED** that only the price and volume of dis-aggregated BSAD should be published;
- **AGREED** Option fees (via the BPA and SPA) should continue to be included in the Energy Imbalance Price calculation; and

[10] The Maximum Generation Service (MaxGen) is required to provide additional short term generation output during periods of system stress for system balancing. It is taken order to maintain system security in the event that all valid and feasible Bids and Offers have been accepted in the BM.

- **AGREED** the current treatment of Applicable Balancing Services Volume Data (ABSVD) and Non-Balancing Mechanism (Non-BM) Reserve volumes should remain the same. Preferably, these would be incorporated into the main Energy Imbalance Price calculation but the ex-post calculation of ABSVD and Non-BM Reserve volume would detrimentally impact prompt prices.

3.3.3 Principles governing the Replacement Price Methodology Statement

The Group:

- **AGREED** the Replacement Price Methodology should determine prices for unpriced volumes that appear in the NIV with a price based on a volume weighted average of the most expensive 'X' MWh of non-NIV tagged 'energy' and 'energy plus system' acceptances, and the value of 'X' will be determined during the Assessment Procedure.

3.3.4 Principles for agreement of the calculation of the main Energy Imbalance Price

The Group:

- **AGREED** the main Energy Imbalance Price should be based on the current concept of a PAR volume, but the MWh volume should be reviewed during the Assessment Procedure; and

- **AGREED** the value should be less than or equal to 500MWh but should not be so small as to allow imbalance prices to be unduly impacted by actions which are not captured by the improved tagging methodology.

3.3.5 Interaction between P217 and other industry governance

The Group:

- **AGREED** the BSAD Methodology Statement was impacted by P217; and

- **AGREED** the Balancing Principles Statement, National Grid's Transmission License conditions and the ABSVD Methodology Statement would not be impacted by P217.

3.3.6 Scope of the required data analysis for the Assessment Procedure

The Group:

- **AGREED** to conduct a simulation of the SO's constraint tagging to be undertaken during the Assessment Procedure, with the understanding that such an exercise may have certain limitations in scope;

- **AGREED** historic data analysis should be conducted for the tagging principles, main Energy Imbalance Price and replacement price. This should include days of system stress;

- **AGREED** analysis into the impacts of P217 on cash-flows and the impacts on different classes of Parties should be conducted;

- **AGREED** analysis is required to determine the size of the 'chunk' for both the Replacement Price and the main Energy Imbalance Price. This could be similar to analysis undertaken for determining the level of PAR under P194 and P205;

- **AGREED** analysis on dis-aggregation of BSAD is required. Analysis should also be conducted on the number of times a single Balancing Mechanism Unit trade makes up the entire BSAD component;

- **AGREED** alternative methods of incorporating Option fees in the calculation of the main Energy Imbalance Price should be considered; and
- **AGREED** not to conduct behavioural analysis for the Assessment Procedure.

4 Areas Raised By The Terms Of Reference

This section outlines the conclusions of the Modification Group regarding those areas set out in the P217 Terms of Reference in respect of the Definition Procedure.

4.1 Principles governing the Tagging Methodology Statement

This section captures the Groups discussions on what should be included in the BSC Tagging Methodology Statement that P217 would introduce. The Group initiated discussion by considering the current tagging rules (Section 4.1.1), then considered the balancing actions taken by the SO (Section 4.1.2). Subsequently, the Group agreed that tagging principles should be applied to short duration BOAs (Section 4.1.3), constraints (Section 4.1.5), and Reserve (Section 4.1.7). A summary of the agreed tagging principles is included in Section 3.2.1.

4.1.1 Current Tagging rules

The Group commenced discussion on the principles that would govern a Tagging Methodology Statement by considering the current tagging rules under the BSC. The Group first considered De Minimis, whereby accepted Bid/Offer volumes below 1MWh are removed from the price calculation. This rule had been put in place to address the finite accuracy of SO systems, the BSC systems and the interaction between them. One Group member suggested that the problem may now have been resolved, but to test the systems in order to prove the problem had been solved would be overly expensive and time consuming (this had been considered at ISG meeting 27 June 2006 (ISG 65/03)). Another Group member wondered how many De Minimis actions are currently tagged out by the CADL. It was noted by the Group that De Minimis tagging is a mechanistic rule.

The Group considered Arbitrage, where Bids and Offers in equal and opposite directions, where no net energy is delivered to the system and which provide a financial benefit, are excluded from the price calculation. It was questioned whether this rule would be appropriate under P217. The Group agreed that the decision about whether to keep Arbitrage as a tagged action should be made after the discussion on the nature of system and energy tagging. The Group noted that Arbitrage was a mechanistic rule.

The Group considered CADL, another mechanistic rule, where Acceptances of a duration less than 15 minutes are tagged as unpriced. The Group agreed it was worth discussing the relevance of a CADL tagging approach under P217 as a way of identifying energy/system actions (section 4.1.3).

The Group next discussed BSAD. It was noted that, unlike the previous mechanistic rule based tags, BSAD is tagged on the basis of SO discretion (based on the BSAD Methodology Statement). A Group member queried whether looking at historic BSAD analysis would assist the Group in considering tagging. The Group agreed that further consideration of BSAD would be required during the Definition Procedure. (section 4.2)

Regarding Emergency Instructions, a Group member asked whether they were also tagged in a discretionary manner by the SO. The Transmission Company representative answered that, although Emergency Instructions could be considered to be discretionary, once the conditions existed whereby an Emergency Instruction was needed then the SO applied mechanistic rules. Another Group member suggested that Emergency Instructions combined an initial discretionary decision with a mechanistic rules based approach. It was noted that Emergency Instructions are 'system' based actions, apart from MaxGen.

On the subject of NIV tagging the Group's initial view was that there may be a change required due to a reconsideration of the main Energy Imbalance Price as part of P217. However, on further consideration, no change to the NIV tagging process would occur. It was also noted that NIV tagging was a mechanistic rule.

4.1.2 Group discussion on classes of balancing service

The Group then reviewed the different classes of balancing services (as set out in the Balancing Principles Statement and the Procurement Guidelines Report 1 April 2005 to 31 March 2006) with regards to whether a balancing service class could be identified as 'system', 'energy plus system' or 'energy'. Table 1 summarises the Group's conclusions on how balancing services should be classified with the discussion on each area captured below:

Table 1: Classifying classes of balancing actions

Energy	Energy plus System	System
		Reactive Power
←	Fast Reserve →	→
← Reserve	→	→
BM Start-up ----	----	---- → (system security)
←	Fast start →	→
		Frequency (ABSVD)
SO – SO trades		SO – SO trades
		Inter-tripping
Non-locational Forward Trades		Locational Forward Trades
Pre-Gate BMU Transactions (PGBTs)		Pre-Gate BMU Transactions (PGBTs)
Maximum Generation Service		All other Emergency Instructions

Reactive Power

The Group agreed that Reactive Power should be classed as a 'system' action, as a Reactive Power action would be taken in order to manage the system and ensure quality of supply. It was also suggested that a Trading Party would not purchase Reactive Power, only Active Power.

Fast Reserve

Fast Reserve is a subset of regulating reserve and Short Term Operating Reserve (STOR), and is required for the maintenance of system frequency within operational limits. There was disagreement about whether Fast Reserve should be classed as a 'system' or an 'energy' action. A Group member commented that one of the problems with an action like Fast Reserve is that the market is set up to balance in half hour periods, where as the SO has to balance the system in real

time. Fast Reserve takes place over a period that is shorter than 30 minutes. It was noted that if the current definition of CADL remained the same then a Fast Reserve action of less than 15 minutes would automatically be CADL tagged and would therefore be a system action. Another Group member noted that in principle they believed Fast Reserve was an 'energy' action, as it was an action taken to balance the energy on the system. But, as the market is settled in half hours, it should be pragmatically considered a 'system' action. However, if the market was based on 10 minute periods, for example, such a classification of Fast Reserve as 'system' might change. One member noted that it was possible for a Party to be in imbalance within the half hour period, but over the entire half hour they could be balanced. This would mean that, if fast reserve was required within a Settlement Period, such a Party would have contributed to this requirement but would not have those costs targeted on them. Another member commented that if it was difficult to measure the imbalance, then the cost would be socialised through the Balancing Services Use of System (BSUoS) charge. The Group initially agreed that Fast Reserve could be considered as 'energy', 'energy plus system' or 'system' and that further discussion of the intra half hour period and CADL was required (section 4.1.3).

Reserve

Reserve is used to cover longer term imbalance between supply and demand caused by demand forecast error, plant failure, and the uncertainty associated with periods of rapid demand change. Reserve comprises three sub categories (as set out in the Balancing Principles Statement): Contingency Reserve, Regulating Reserve and STOR (Fast Reserve has been considered separately). The Group considered all sub-categories of reserve together. It was noted that reserve response times were anything from 20 minutes to 2 hours. The Group then debated whether reserve was a 'system' or an 'energy' action. One argument was that if the system was perfectly balanced then no reserve would be needed, hence reserve, when called upon, was required to increase energy on the system and so was an 'energy' action. However, the counterview was that a prudent SO would ensure reserve as an 'insurance policy' against any unexpected loss of generation or an increase in demand. Hence, reserve would be required for system balancing purposes. As with Fast Reserve the Group initially considered that reserve could be classified as 'energy', 'energy plus system' or 'system' and that further discussion was required. However, upon further consideration, the Group concluded that all reserve activity other than Fast Reserve should be considered as 'energy' or 'energy plus system' and be included in the Energy Imbalance Price. (section 4.1.5).

Frequency Response[11]

Frequency response is provided by sources that automatically react to frequency deviations and is required to manage instantaneous imbalances between generation and demand. A Group member suggested that in their view frequency response was an 'energy' action as it was dealing with changes in demand or generation. Another member noted that they believed it to be mostly a 'system' action due to its immediate short term effect. It was noted that frequency response was currently treated as part of ABSVD which was applied to each BM Unit separately and in total dealt with through the SO account. The majority of the Group agreed that frequency response should be considered a 'system' action.

[11] One Group member noted that it should be made clear what the difference between Fast Reserve and frequency keeping is given these were often used interchangeably during the discussions. Frequency keeping is where a plant is instructed by the SO to activate their plant to the mode of automatic frequency response. Having plant in this mode contributes to maintaining the frequency within the statutory limits on a moment to moment basis. Volumes attributable to automatic frequency response are then treated through the ABSVD, which is a process outside the BSC. Fast Reserve are actions taken by the SO to avoid a frequency excursion from occurring, and are used to cover events such as plant trip or TV pick up

Fast Start

Fast Start is the ability of Open Cycle Gas Turbine (OCGT) plant to start rapidly from a standstill condition and to deliver its rated power output automatically within a defined time period. The Group considered Fast Start as similar to Fast Reserve.

Black Start

The Group agreed Black Start should not be considered in this discussion as it was outside the scope of the modification. The provisions of BSC Section G 'Contingencies' would come into effect in a Black Start situation.

BM start-up

BM start-up was considered similar to Reserve, although one member suggested it might be classed more as an 'energy' action.

SO to SO trades

It was noted that SO to SO Trades are treated through BSAD and therefore currently tagged at the discretion of the SO as either 'system' or 'energy'.

Inter-tripping

The Group agreed that Inter-tripping was a 'system' action.

Forward Trading

Forward trades were agreed to be either 'system' or 'energy', depending on whether they were locational ('system') or not locational ('energy').

Emergency Instructions

Other than MaxGen (which is required to provide additional short term generation output during periods of system stress), which was agreed to be an 'energy' action, it was agreed that Emergency Instructions are 'system' actions.

4.1.3 Intra Half Hour

The Group believed that intra half hour BOAs needed to be further explored. The Group considered the reasons for having CADL. BSCCo commented that the purpose of CADL, as set out in the most recent Panel Review of CADL (Panel 129/04), is 'to exclude system balancing actions from the Energy Imbalance Price Calculation'. The Review of CADL further notes that 'the mechanism that the Transmission Company used to distinguish between energy and system balancing activities was to associate system balancing actions with plant that have 'fast dynamics', and energy balancing with other types of plant. This description was further qualified for the 2004 review by the Transmission Company, by supplying a definition of 'fast dynamic instructions' as 'those Bids and Offers accepted on Hydro Electric BM Units', and 'non-fast dynamic instructions' as 'those Bids and Offers accepted on all other BM Units.' The decision was taken to strip out the unwanted acceptances by means of a time-driven parameter, rather than assigning 1 or zero weights to different BM Units'.

The Group considered Urgent Modification P144 'Removal of CADL from the BSC', and the reasons for the Authority's decision to reject the Modification. The Proposer of P144 wished to remove CADL to better reflect the cost of energy balancing in the main Energy Imbalance Price. The view

of the Proposer was that the introduction of NIV tagging superseded the need to have CADL tagging, as this was an alternative method for removing the acceptances removed by CADL. In its decision letter the Authority stated its view was that CADL and NIV tagging are complementary, and both assist in distinguishing 'system' actions from 'energy' actions; of which only the latter should be included in the calculation of the main Energy Imbalance Price.

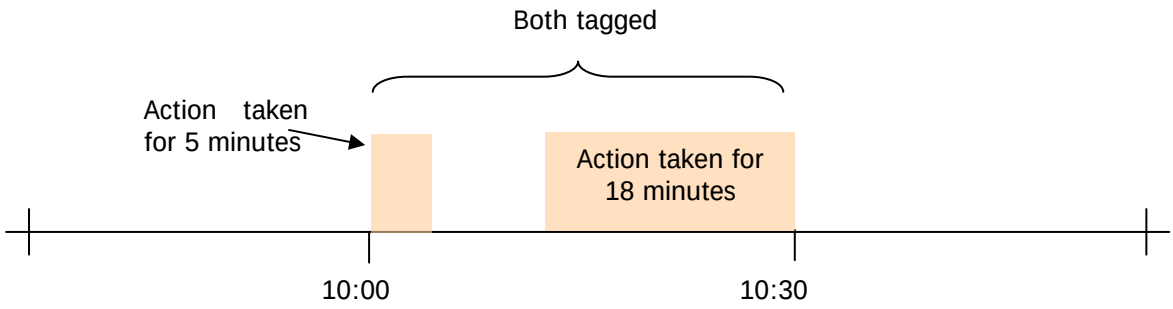
The Group discussed that CADL is a filter that removes BOAs taken for reasons such as Fast Reserve. Fast Reserve should be considered 'system' and be a cost that is socialised through BSUoS. It was the view of some member's that previous analysis (including the CADL review undertaken by the BSC Panel in 2007) has shown that the CADL filter does remove mainly the BOAs taken for fast reserve purposes.

The Group agreed that CADL is a pragmatic tool to remove short duration acceptances, (such as those required immediately for TV pick-up and plant trips), from the main Energy Imbalance Price calculation. The Group also agreed that CADL assisted the Group in identifying whether a BOA was taken for Fast Reserve and therefore whether that BOA should be considered a 'system' or 'energy' action.

The Group considered whether there was any other way of removing actions which are short duration and therefore taken for system purposes. One suggested way forward was that, instead of using a time period for tagging out short period system actions, this be done by the SO analysing the energy spike or fall and tagging certain shapes or energy use as 'system' actions. However, this was discounted as being overly complex when compared to a specific time period. Another Group member suggested that all BOAs from particular types of generators (such as pumped storage facilities), which are almost always taken for system reasons, could be tagged. There was concern in the Group that such an approach may be more open to gaming and may be less accurate at identifying Fast Reserve actions. The Transmission Company representative suggested that, if the SO had to identify and label each action as being for Fast Reserve, the SO would be likely to use a mechanistic approach such as CADL.

One Group member commented with the current CADL tagging mechanism can potentially tag more than just BOAs whose duration is less than 15 minutes due to the mechanism removing all BOAs in a half hour when any one of these is less than 15 minutes. This situation is shown in Figure 1.

Figure 1: CADL Tagging issue



Where there are multiple acceptances of a Bid or an Offer with gaps in the same half hour, if any one of them is less than or equal to 15 minutes then all are tagged as unpriced. This occurs even if the total duration of the acceptance of the half hour exceeds 15 minutes or one of the acceptances

is for greater than 15 minutes. The Group noted that it may be useful to conduct data analysis on CADL during the Assessment Procedure in order to establish the number of occurrences of acceptances greater than 15 minutes which are CADL tagged.

4.1.4 De Minimis and Arbitrage

The Group discussed whether De Minimis and Arbitrage tagging should be retained under P217. The Group noted that De Minimis was introduced to address the finite accuracy of SO systems, the BSC systems and the interaction between them. On that basis De Minimis was still a relevant rule and De Minimis volumes should continue to be removed, as per the current arrangements.

The Group also agreed that Arbitrage tagging, which is a rule that is deemed to increase the economic efficiency of the system, was a rule that should be retained under P217.

4.1.5 Transmission Constraints

4.1.5.1 Potential Constraint tagging options

The Group noted that a transmission constraint could be defined as 'any thermal, voltage or stability event that requires an action by the SO to resolve it'. A Group member noted that the action would also need to be locational. The Group agreed that locational transmission constraint actions are always 'system' actions, although it was noted that there may be knock on effects to secondary balancing services which were 'energy' actions.

The Transmission Company representative provided the Group with an overview of how locational transmission constraints are currently identified in relation to income adjusting events and also an overview of their initial thinking with regard to locational transmission constraint tagging. The SO undertakes post event analysis in relation to significant locational transmission constraints. This analysis incorporates pre-planner notes, control room notes, engineer judgements and is subject to rigorous review.

The Group considered the following wide spectrum of options to tag constraints:

1. As currently – use a mechanism similar to NIV; or
2. Ex-ante transmission constraint identification – Identify, or 'flag', constraints in planning timescales and tag out all BOAs on BM Units identified in the constraint area; or
3. Real time tagging - where additional control room SO resource would be required to identify constraints and tag accordingly; or
4. Ex-post Unconstrained Schedule (EPUS) scheduling approach – this might be similar to a mechanistic P211 ex-post unconstrained schedule solution but include a level of dynamics to improve accuracy; or
5. Ex-post full scheduling approach similar to 'super GOAL[12]' that was developed under the 'Pool' arrangements.

The Group believed that the current mechanism led to situations where constraints impact the main Energy Imbalance Price. Therefore, Option 1 was not preferred.

[12] Generation Ordering and Loading software (GOAL). A scheduling programme used by the System Operator as a tool to facilitate economic scheduling of the available generation.

The Group were concerned that 'real time tagging' (Option 3) would be prohibitively expensive and may potentially impact prompt prices. It would be likely to require additional 24 hour resource in the SO control room as dispatchers will continue to concentrate only on their core activities and responsibilities. Furthermore, the level of discretion given to the SO would be likely to lead to the constraint tagging decisions being challenged and thus compromise the SO's position. Option 3 was therefore not preferred.

When considering Options 4 and 5 the Group noted that a significant amount of analysis had been conducted on the EPUS approach as part of the Assessment Procedure of Modification Proposal P211. This analysis had highlighted the type of difficulties that were associated with incorporating dynamics into an EPUS. Whilst a full scheduling model might prove beneficial to identifying constraints, the Group believed this was likely to be prohibitively expensive to develop. Options 4 and 5 were therefore not preferred.

The Group considered that ex-ante transmission constraint identification (Option 2) was the most pragmatic approach. The majority of discretion for the SO would be removed due to transmission constraints being identified in accordance with their GB Security and Quality of Supply Standards (GB SQSS). It was noted that, depending on the timing of notification and/or publication of transmission constraint information, ex-ante identification could influence market behaviour with the risk that there may be perverse outcomes. However, ex-ante identification was the preferred option to be further developed. Going forward ex-ante transmission constraint identification will be referred to as 'constraint flagging', (as constraints will be flagged by the SO) and that 'flag' would then be processed by the BSC Systems and subsequently by subjected to the tagging rules.

4.1.5.2 Transmission Constraint Flagging principles

The Transmission Company member outlined the high level principles of constraint flagging as currently being developed by the SO. The SO had originally considered a procedure whereby constraint areas would be identified as part of the SO's forward planning and all the BMUs in a constraint area would be flagged as 'system'. However, on further investigation this had the potential to lead to 'over-flagging' where BMUs that were not impacted by the constraint, and therefore should not be flagged, are flagged as constraint impacted actions.

The SO therefore refined their proposal for identifying constraint actions. It would be a two stage process. The first stage would occur during the SO's forward planning process, approximately one day ahead. The SO would identify constraint areas and then identify which BMUs would be committed (for BM Start-up or other actions) in those areas in order to alleviate the constraints. At that stage those committed BMUs would be identified by the SO as being impacted by a constraint.

The second stage occurs between the first stage and Gate Closure. If the SO identifies a constraint which is about to bite, and they are unable to identify specific BMUs by Gate Closure, the SO would 'flag' all BMUs in the area. If the SO identifies a constraint which is about to bite, and by Gate Closure they are able to identify specific BMUs, the SO would only 'flag' the specific affected BMUs.

At Gate Closure the SO would submit details to the BSC Systems of the set of BMUs that had been 'flagged' as being impacted by a transmission constraint. All BOAs for these BMUs would be initially 'flagged' such that they can be subject to 'tagging' as either 'system' or 'energy plus system' actions by the BSC Systems. If however such a flagged action was less expensive than an 'energy' or action (i.e. a Bid or Offer acceptance on a BMU that is not subject to a 'flag') then they would be classified as 'energy plus system' for the purpose of setting cash out prices. If such flagged actions were more expensive than the highest priced 'energy' or 'energy plus system' action then they

would be classified as a 'system' action for the purpose of setting cash out prices (this is described in further detail in Section 4.1.6).

The process would be dynamic and would allow the SO the ability to continually refine their position up until Gate Closure.

The Group agreed that this approach was pragmatic and would be likely to accurately identify most BMUs impacted by a constraint. However, the Group highlighted that the refined ex-ante constraint flagging approach may still potentially 'over-flag'. BOAs within a constraint area may not all be taken for 'system' reasons and some may be 'energy' or 'energy plus system' actions. Additionally, constraints identified by ex-ante constraint flagging may become resolved in the interim period between identification and real time. The Group understood the potential for over-flagging implicit in a constraint flagging approach, but agreed that it was likely to offer the most pragmatic solution in terms of cost-benefit. The Group also recognised that there was also the potential for 'under-flagging' to occur in situations where a constraint materialises closer to real time and had not been identified in the planning stages.

Additionally, the Group identified that a consequence of this solution is that the process by which a flagged action can be deemed as 'energy plus system' (via the mechanistic approach of checking if there is a higher priced 'energy' acceptance) has the potential to erroneously include genuine 'system' actions. This might occur in the situation where the constraint flagging process fails to identify a genuine 'system' action that is highly priced[13]. This would then mean that all other genuine 'system' actions priced below this would also be included in the Energy Imbalance Price calculation. The Group agreed that analysis of the material impact of this would need to occur during the Assessment Procedure.

4.1.5.3 Publishing of transmission constraint information

The Group considered whether to publish the BOA that the SO flagged as being subject to transmission constraints. The Group agreed that this information should be published ex-post, but within current prompt price timescales.

The Group noted that publishing the details of the constraints could provide two opposing incentives to Parties. A negative impact could be that publishing constraint information may potentially lead to 'keen pricing' of BM Units that interact with the constraint. It could also lead to changes in Physical Notifications (PNs) where a Party might be able to move volume within their portfolio so as to favourably impact the constraint, but not change their overall position. However, some Group members argued that Parties are generally aware of constraints under the current arrangements so this impact should not be overstated. A positive impact of publishing constraint information could be that transparency of constraints would make any perverse activity easier to detect. Furthermore, it may also trigger competition in the area impacted by the constraint (where this exists) which might contribute to relieving the constraint. Because of these concerns the Group developed three options for how constraint information could be published:

1. Publish the information once the SO forward planning has been concluded. This allows the most time for Parties to respond to the information (either positively or negatively);
2. Publish the information at Gate Closure. This will mean that Parties cannot react to the first Settlement Period in which the constraint is active and reduces the potential for 'keen pricing' and advantageously changing PNs. However, as constraints are often active for

[13] This might, for example, be due to a transmission constraint occurring after Gate Closure which has not been flagged by the SO.

many consecutive periods this still provides a signal to the market for future Settlement Periods in which they can react to (and potentially beneficially alter their bids or offers); or

3. Publish the information ex-post. As with Option 2 this would still provide a signal to the market for future Settlement Periods.

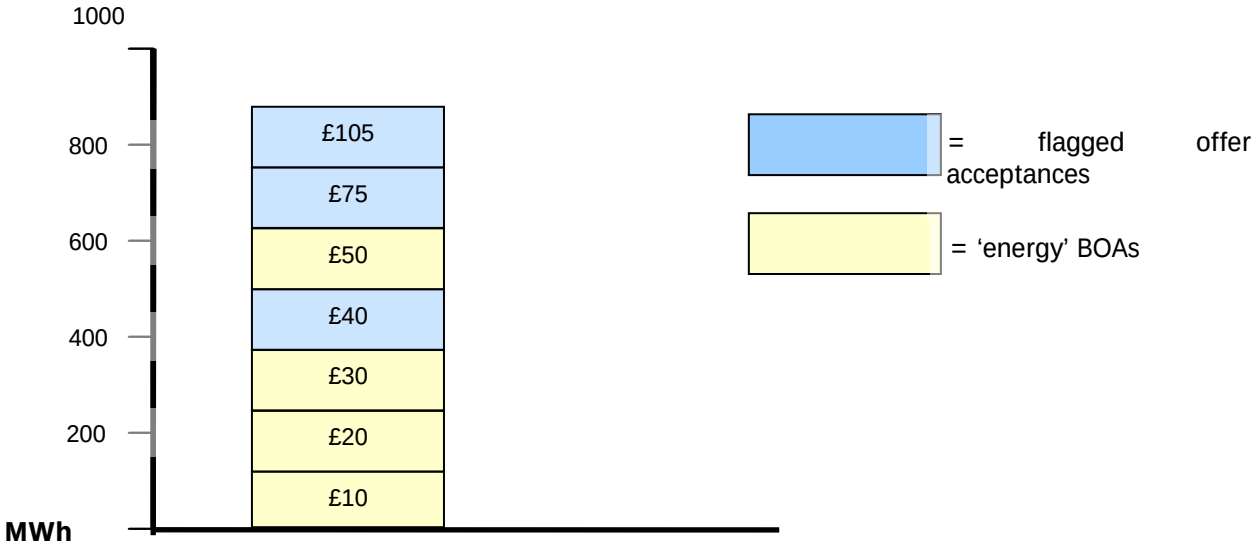
Of the three options the Group preferred that constraint information should be published ex-post as that would reduce the potential for 'keen pricing' in a constraint area as well as the potential for Parties to change their PNs to take advantage of the constraint.

4.1.6 Requirement for favourable flagged actions to be included in the NIV stack as priced

The Group discussed the scenario where BOAs originally identified flagged (be that CADL, constraint flagged, etc) when stacked for NIV tagging, would be cheaper than the most expensive 'energy' action. The Group believed that an economic solution would be for those lower priced flagged actions to not be tagged as 'system' (and therefore appear as unpriced) as they theoretically would have also been taken for energy purposes (i.e. they were 'in merit'). Such actions should therefore be classed as 'energy plus system'.

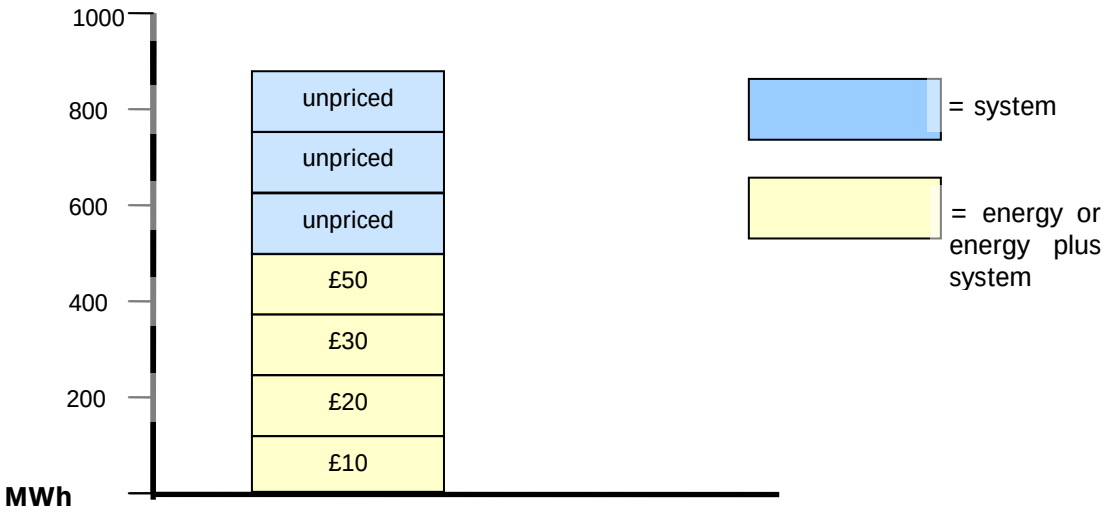
The BOAs are stacked as shown in Figure 2 . The actions are stacked in price order. The £40, £75 and £105 BOAs have been identified and flagged as potentially 'system' or 'energy plus system' actions. The £50 BOA is an 'energy' or action.

Figure 2: NIV stack following the identification of 'system', 'energy' and 'energy plus system' actions



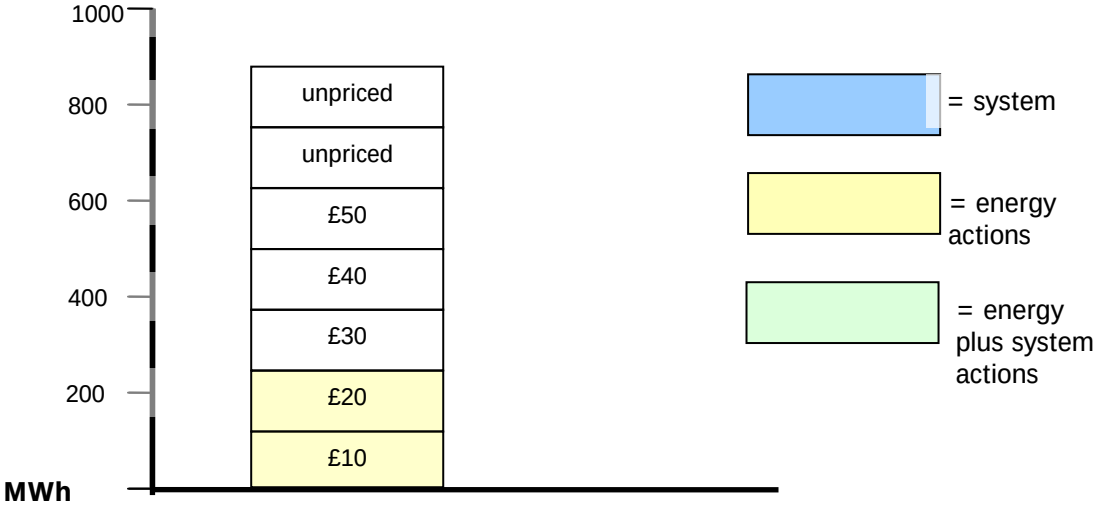
If the £40 BOA were to be defined as 'system' then this would be included as unpriced in the NIV stack. This can be seen in Figure 3a.

Figure 3a: NIV stack after application tagging rules whereby all 'system' actions are unpriced



In this scenario the NIV would include the entire stack[14], and so (under P217) the unpriced actions would all require a replacement price (see Section 4.2). The Group believed that the replacement price could be potentially higher than the £40 system action which, because it was identified as 'system' had been tagged as unpriced. Such tagging would not be reflective of the costs faced by the SO in balancing the system. The Group proposed that in such situations the £40 BOA should remain in the NIV stack as a priced action. This can be seen in Figure 3b.

Figure 3b: NIV stack where only BOAs that are more expensive than 'energy' or 'energy plus system' BOAs are considered 'system'



The £40 BOA is classified as an 'energy plus system' and so remains priced. Therefore BOAs will only be tagged as 'system' when there is no higher priced BOA that has been defined as 'energy'.

[14] As there are no accepted Bids.

Therefore, the criteria for the action to be 'system' (and tagged as unpriced) would be that there is no priced 'energy' action in the NIV stack (prior to NIV tagging) that is a higher price than the price of the BOA in question.

4.1.7 Reserve

The Group recognised that CADL only dealt with fast reserve and therefore considered how other forms of reserve should be treated.

One member considered that if reserve has been utilised (that is, where a BOA has been issued in relation to that reserve), that this should be treated as an 'energy' action as it was required to balance the energy requirements for the half hour. This is how the current arrangements treat reserve. This principle should also include Option fees because the SO effectively acts on behalf of the market to make sure there is sufficient reserve available to manage Parties imbalance position in real time. Therefore, this cost should be targeted on those out of balance.

The Group considered STOR and BM start up and how these manifest in the main Energy Imbalance Price through BSAD. STOR and BM start up are currently issued via BOAs and are effectively treated as 'energy' other than when this is removed by NIV tagging. However, there is some inconsistency in how each of these impacts the BPA and the SPA. For further discussion on BSAD see Section 4.3.

4.1.8 Views of Respondents to Definition Procedure Consultation

In general the tagging principles were supported by respondents. However the following points have been made:

One respondent agreed that the CADL tagging rules should be reviewed so that only BOAs of less than 15 minutes duration are tagged.

One respondent commented that depending on the cost of removing the De Minimis tagging mechanism from the central systems, they would support the removal of De Minimis tagging.

One respondent noted that the prime objective of P217 should be to address the issue of transmission constraints affecting the main Energy Imbalance Price. In the respondent's view detailed consideration of other tagging elements should not divert resources from this primary objective.

One respondent commented that the constraint flagging principles do not take account of actions taken outside the constraint area to restore balance to the system and will therefore only remove part of the effect of system constraints on the main Energy Imbalance Price.

One respondent did not agree with the Group's classification of Reserve (classified as an 'energy' action in the P217 Definition Consultation document) and believed the classification should be closer to that outlined in Ofgem's Regulatory Impact Assessment (RIA) for P211/P212[15]. The respondent commented that the procurement of reserve is undertaken in support of maintaining the quality (security and continuity) of electricity supplies and ultimately to ensure that the Grid can remain energised at all times. Reserve provides benefits to all system users (but particularly to consumers). Reserve would need to be procured even in a balanced market, even if generators very rarely failed and demand forecasting were perfect, to cover the possibility of a generation

[15] This can be found on Ofgem's website here:
http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=98&refer=Markets/WhlMkts/CompandEff/CashoutRev

failure – in line with National Grid's SQSS security and quality of supply standards (which translate into operational reserve requirements).

One respondent disagreed that MaxGen can always be considered as an 'energy' action. It is suggested that in an import constraint in a specific area, where MaxGen is used to meet the demand in that area (when other cheaper actions were available in other non-constrained areas), then this should be classed as a 'system' action.

One respondent was concerned that the dis-aggregation of BSAD and the proposed constraint flagging methodology would lead to over-tagging of BMUs within a constraint area. In their view this was discriminatory and was therefore counter to better meeting the Applicable BSC Objectives. The respondent noted that what constitutes a 'constraint area' is currently not defined and not all actions within a constraint area would be taken for purely 'system'. Additionally they were concerned that certain constraints areas, contingent upon their definition, could be virtually permanently tagged out of the price setting mechanism.

One respondent highlighted that P217 is likely to lead to all Parties having a greater understanding of the location of active constraints on the transmission system and an understanding of the number of options available to the System Operator to resolve them. This may lead to Parties, who are able, to price their Bids and Offers more keenly in order to maximise the returns available to them in these scenarios. The respondent was concerned about the ability of Parties to potentially adjust their portfolios to move load in and out of areas where certain running arrangements may lead constraints to manifest themselves. This may have an impact on the number of hours in which the system is constrained and require the acceptance of a greater proportion of out of merit actions. This may lead to an increased cost to the market as a whole.

With regards to alternative ways of tagging out short duration actions considered by the Group, (other than CADL, which forms part of the solution), one respondent noted that, as an operator of a pump storage facility which was not always used for 'system' balancing, They did not support a methodology to remove acceptances based on type of plant.

9 of the 11 respondents agreed that constraint information should be published ex-post. Most respondents noted that a balance needs to be struck between transparency (i.e. publishing the constraint details), and the potential for Parties to use constraint information to price more 'keenly' or move load within their portfolio to take advantage of a potential transmission constraint.

One respondent noted that no timescale was yet provided for when constraints would be published ex-post, and this would need to be defined in Assessment.

One respondent disagreed that constraint information should necessarily be published and believed it was a decision for National Grid as part of their constraint flagging methodology. The respondent suggested that they supported the publication of the relevant 'system', 'energy plus system' or 'energy' tags to the bid/offer acceptances or to disaggregated BSAD trades rather than constraint specific information.

One respondent in disagreement to publishing constraint information commented that the generator behind a constraint will be aware of the issue when the rest of the market will not. As constraints are likely to last over a number of periods, if not days, it seems better that NGC simply flag them to the whole market and allow all market players to help monitor any potential abuse of a dominant position that occurs.

One respondent also highlighted a potential aspect of the solution where a high priced BOA that was subject to a transmission constraint may not be flagged (for example, due to a transmission

constraint occurring after Gate Closure) and go into the stack as an 'energy' action. This would cause all the 'flagged' actions below this, which would ordinarily have been tagged as unpriced, to be re-classified as 'energy plus system', and so influence the main Energy Imbalance Price. The respondent suggested that a potential solution could be to introduce a De Minimis style rule for 'energy plus system' actions, although this would not address larger BOAs subject to transmission constraints that were not flagged.

4.1.9 Modification Group's further discussions following the consultation

The Group noted that there was general agreement for the tagging principles and discussed each respondent's concern/comment in turn.

4.1.9.1 CADL

The Group noted that they had previously agreed that analysis should be conducted on CADL to determine whether the issue of removing all BMU acceptances in a half hour if any one acceptance is less than 15 minutes (highlighted in Section 4.1.3) was material. The Group reiterated their view that this issue should be investigated further. The Group also confirmed CADL was the appropriate means to remove short duration (intra half hour) BOAs.

4.1.9.2 De Minimis

The Group noted that one respondent suggested that if it was economically viable then De Minimis tagging should be removed. The Group considered that they had previously discussed whether De Minimis should be removed, and had taken the view that the costs for investigating whether the system interface issues between National Grid and the BSC System had been resolved were likely to be prohibitive. One Group member suggested that the Group should only consider removing De Minimis if it was considered to be economically viable. Another Group member commented that the material affect of removing De Minimis was likely to be low, although unless analysis was conducted it would be difficult to assess the materiality. BSCCo suggested that the scope of P217 was already broad and the Group should consider whether the removal of De Minimis was a high priority within the context of the overall Modification Proposal. The Group noted that it may be possible for the Project Isis team to investigate the problem during the transition to the chosen Service Provider. The Group requested that BSCCo highlight the issue of De Minimis to the Project Isis team, so that it may be considered if there were a suitably opportune moment. For the definition of P217 the Group agreed that the current concept and treatment of De Minimis volumes should remain.

4.1.9.3 Treatment of secondary constraint actions

One respondent had commented that constraint flagging would not take account of secondary actions taken outside the constraint area to restore balance to the system and will therefore only remove one side of a system constraints from the main Energy Imbalance Price[16]. One Group member suggested that NIV tagging was supposed to remove actions taken in the opposite direction of the primary constraint actions. However, NIV tagging would only successfully remove the primary and secondary actions if those actions were the most expensive in the stack. Another member commented that although it is generally assumed that constraint actions were the most expensive, this is not always the case. One member suggested that if a secondary constraint action

[16] In order to keep the system in overall balance, a locational constraint requires any downturn in energy to be met by a equivalent increase elsewhere on the system. Constraint flagging may mean that only the acceptance on one side of the constraint is removed.

was not NIV tagged out it was probably economically efficient to take the actions and therefore should be regarded as an 'energy plus system' action.

The Transmission Company member noted that constraint flagging, as currently being developed by the SO, would be able to flag first order constraint actions, but would not be able to flag secondary constraint actions. If this was required then a model such as a dynamic EPUS would need to be developed. The Group noted that a dynamic EPUS had been considered by the P211 Modification Group as a potential Alternative to P211, but had been discarded as it was thought to be overly complex to develop.

The Group agreed that constraint flagging would be a pragmatic solution which would flag BMUs for which primary actions were taken for constraint reasons, but would not be able to flag secondary actions taken to balance energy.

4.1.9.4 Classification of Reserve

The Group noted comments from one respondent that they believed the Group's classification of reserve as an 'energy' action to be incorrect. The respondent favoured a classification more akin the Ofgem's P211/P212 RIA, where one argument is made that reserve creation might be considered to be a 'system' action. However, Ofgem viewed reserve use as an 'energy' action. One Group member noted their agreement with the respondent's comments. In their view reserve was created for the good of the system as a whole. They were also concerned that it was difficult to target reserve at the period and event it was used to balance. Hence, it should be considered a 'system' action, and its costs should be socialised across the industry. One member noted that reserve could be considered as similar to insurance. With insurance, those who make more frequent claims should expect to pay higher premiums. It should be the same with reserve. Those who are out of balance should expect to have the SO's costs in procuring reserve in order to resolve their imbalance targeted upon them.

BSCCo noted that the Group's previous view was that reserve should considered to be an 'energy' action if it has been utilised (that is, where a BOA has been issued in relation to that reserve) as it was required to balance the energy requirements for the half hour (see Section 4.1.1). The exception was where a reserve action was CADL tagged, in which case it would be considered as resolving an intra half hour imbalance and be a 'system' action. The majority of the Group agreed with their previous view. A minority of the Group believed reserve should be classified as a 'system' action.

4.1.9.5 The classification of MaxGen

The Group considered whether MaxGen could be utilised in order to resolve a system constraint. One Group member noted that MaxGen was not an action which the SO would take in order to resolve an import constraint. The Group agreed that this being the case MaxGen should be classified as an 'energy' action.

4.1.9.6 Issue of over-flagging of constraint actions

One respondent had commented that they were concerned that constraint flagging as described in the P217 Definition Consultation document had the potential to over-flag actions within a constraint. The Group discussed the problem of over-flagging of constraints. One member noted their concern that there could be times when a whole area would be flagged, and subsequently tagged from the Energy Imbalance Price calculation. For example, this could potentially be the whole of Scotland in the case of the Cheviot constraint. The Transmission Company representative

noted that this was a possibility. Another member commented that the SO would be continually refining their position up until Gate Closure so the potential for over-flagging would be limited. Another Group member suggested that it was difficult to really isolate individual BM Units that are impacted by a constraint as the whole system would be in some way impacted.

The Group agreed that there were potential weaknesses to ex-ante constraint flagging. However, until the SO has fully developed the constraint flagging solution and analysis undertaken, the materiality of this was unknown. The Group reiterated their view that an important part of the Assessment Procedure analysis was a simulation of ex-ante constraint flagging. This would need to be conducted over a reasonable period by the SO. Once the simulation had been completed the accuracy of constraint flagging would need to be assessed. A further discussion of this assessment is included in Section 4.6.

4.1.9.7 Classification of pumped storage facilities

The Group noted the respondent's comment regarding the view that not all pumped storage facility use is solely to resolve 'system' imbalance.

4.1.9.8 Publishing of constraint information

The Group noted the majority agreement with publishing constraint details ex-post. One respondent, however, had suggested that constraint information should be published ex-ante so that the market could monitor whether with BM Units within a constraint were pricing more keenly. There was some sympathy within the Group for this view, with a minority of Group members believing the industry would be effective at policing such keen pricing if constraint information was published ex-ante. However the majority view of the Group was the ex-post publishing of constraint information offered the best compromise between transparency and preventing Parties pricing more keenly and potentially advantageously moving load with their portfolios: both of which could increase SO balancing costs as a result.

Another Group member noted that when considering publishing of constraints purely on the cost of implementation, it was likely that ex-post constraint publishing would have a lower implementation cost, when compared to ex-ante. The rationale was that ex-ante publishing might need to reflect the SO's changing position up until Gate Closure. Where as ex-post publishing would only need to reflect the SO's final flagging position.

The Group discussed what form ex-post publishing should take. One Group member proposed that they supported the publication of the relevant 'system', 'energy plus system' or 'energy' flags of the BOAs or to disaggregated BSAD trades, rather than any constraint specific information. The member's view was that all of the BSC constraint information should be published. Any further information might be desirable, but would be the decision of the SO as to whether it should be published, and in what form. The Group agreed with the view that the ex-post constraint publishing information would be in the form of the flags on BOAs and dis-aggregated BSAD.

4.1.9.9 Retaining flagged BOA prices when in merit order

The Group considered where a high priced BOA that was subject to a transmission constraint may not be flagged and go into the stack as an 'energy' action

The Group viewed this potential problem as similar to the concern that constraints would be over-flagged by the SO. The Group agreed that they would need to investigate how accurately transmission constraint impacted actions were flagged by the SO as part of the Assessment

Procedure. The Group also noted that they would need to investigate how the main Energy Imbalance Price was influenced by the new constraint flagging mechanism developed.

4.1.10 Order of tagging

Having agreed the tagging principles the Group defined the order that the constraint flagging and various tagging activities would take place:

1 The SO will flag ex-ante the BMUs which will be impacted by a transmission constraint. This flag will enter into the BSC Systems to be processed according to the following procedures;

2 All actions (BOAs and dis-aggregated BSAD) will be stacked in price order, both for the Offer stack and the Bid stack;

3 Arbitrage and De Minimis tagging will occur within BSC Systems;

4 CADL and Emergency Instruction flagging will occur;

5 If an action which is either constraint flagged by the SO, or flagged as CADL or an Emergency Instruction by the BSC Systems, has a price lower[17] than an 'energy' action, it will be classified as an 'energy plus system' action;

6 Any flagged BOA not classified as 'energy plus system' will be classified as 'system'. These BOAs will then be tagged as unpriced.

7 NIV tagging occurs;

8 If some unpriced actions remain after NIV tagging, then these will be assigned the replacement price (see section 4.3);

9 PAR tagging occurs and the main Energy Imbalance Price is calculated.

4.1.11 Modification Group's agreed tagging principles

The Modification Group's agreed tagging principles are set out in Section 3.3.1.

4.2 Principles for the treatment of BSAD, ABSVD, demand side reserve actions and imbalance on the SO accounts

4.2.1 Treatment of BSAD

4.2.1.1 Modification Group's Initial Discussions

Currently BSAD is a net 'energy' volume and a net 'system' volume that can enter the main Energy Imbalance Price calculation. The energy volume is priced and the system volume is unpriced. The determination of specific BSAD components as energy or system, and the price of the energy BSAD, is determined by the SO in accordance with the BSAD Methodology Statement. A background to BSAD and how it is treated within the cash out arrangements is included in Attachment 1.

The Group considered how BSAD and the price adjusters (Buy Price Adjuster or 'BPA' and Sell Price Adjuster 'SPA') should be treated by the Tagging Methodology Statement. This discussion was

[17] If the system is short (NIV > 0), then the test is for a lower priced offer acceptance. If the system is long (NIV < 0), then the test is a higher priced bid acceptance.

relatively in depth although the principle the Group were ultimately debating is whether BSAD and option fees should be included in the Energy Imbalance Price calculation.

One member of the Group highlighted that an understanding of the rationale for why BSAD is currently treated the way it is in the cash out arrangements, is a key question that needs to be considered by the Group. Some members expressed the view that the general principle of reflecting BSAD into the cash out arrangements is to reflect the costs of the SO in balancing the system. The cost of forward trades and option fees should be targeted on those who are out of balance.

The member asserted that forward trades undertaken by the SO ahead of Gate Closure are done so because the SO economically and efficiently believes that this is a better price than can be expected in the BM. However, any forward trades undertaken by the SO will impact power exchange prices and therefore the market price (i.e. the reverse price). Therefore, there is already a route in which energy BSAD impacts Energy Imbalance Prices, and reflecting BSAD into the main Energy Imbalance Price is not required. In the member's opinion, also including BSAD in the main Energy Imbalance Price calculation might be considered 'double counting'. The member pointed toward analysis done for the 2005 Ofgem led Cashout Review. (See Definition Consultation Attachment 2: BSAD in BM Cashout). This showed that the SO traded significant quantities of Energy BSAD during 2003/04, and it was the member's view that the SO has the potential to distort the market through its trades and they often sell without regard to costs of production (which generators must take into account).

The Group considered whether, were BSAD to remain included in the Energy Imbalance Price calculation, there would be benefit from disaggregating BSAD. BSAD is currently included in the price calculation as a net energy and a net system volume. Therefore, the individual components of BSAD are averaged prior to entering the main Energy Imbalance Price so that they only enter once. Disaggregating BSAD would mean that every component of BSAD, with its associated price, would enter into the NIV stack at its original price and volume. The Group believed that disaggregating BSAD would increase transparency and provide a consistent approach for both BOAs and forward trades. Therefore, if BSAD was to be included in the main Energy Imbalance Price calculation, the Group agreed that, in principle, this should be disaggregated.

It should be noted that if BSAD were to be disaggregated it could be subject to the 'constraint flagging' process identified in Section 4.1.5.

The Group considered the BPA. This is split into two parts, BM start up and STOR, which reflect SO option fees into the main Energy Imbalance Price. The Group noted that the methodologies for calculating these components of the BPA were probably not well understood and have provided a simplified overview in Attachment 1. One member highlighted that the methodology for calculating the STOR component of BSAD was not necessarily accurate because it relied on historic utilisation of STOR. Whilst the methodology did allow for seasonal and business/non-business day variations, there was still the ability for rogue historic utilisation patterns to influence current Energy Imbalance Prices. The Group did not believe this was desirable, and could not provide the rationale for why the STOR component of BPA is reflected as it currently is. However, at this stage, the Group does not have an alternative methodology for reflecting STOR in the BPA and therefore into the main Energy Imbalance Price calculation.

One member highlighted that there are potentially many cases when the BM start up component of BPA does not reflect the level to which the unit actually delivers (See Definition Consultation Attachment 3 'BM Start Up BPA – Treatment in Cashout'). BM start up attempts to reflect the costs incurred by BM start up units in warming to come on for a set of required Settlement Periods. It is

this 'window' of Settlement Periods in which the BM start up component of the BPA is targeted (and therefore provides an uplift to SBP if the system is short (NIV > 0)). Therefore, there is no link to what a BM-start up unit actually delivers in the requirement 'window', and this may not necessarily be cost reflective.

The majority of the Group believed that option fees should be retained in the calculation of the main Energy Imbalance Price as it is those who are out of balance that are the reason that the SO has to procure the levels of reserve that it does. However, the majority of the Group believed that there are potentially preferable ways for reflecting the option fees than the current calculation of BPA and SPA, although these were still to be explored. There was a counter view that, as reserve benefited the whole market, an element of these costs should be socialised and therefore not targeted on those out of balance.

The Group considered two strawmen for how treating reserve in the cashout arrangements could be modified. These are included in Definition Consultation attachments 4 'Reflecting 'Reserve' costs at times of 'System Stress' and 5 'Allocation of reserve Option fees to Cashout'. These do not impact on the principle of whether or not BSAD and/or option fees should be included as part of P217. However, any alternative methods for how these are incorporated into the main Energy Imbalance Price could be considered during the Assessment Procedure.

4.2.1.2 Views of Respondents to Definition Procedure Consultation

Dis-aggregation of BSAD

The majority (8 of 11) of respondents agreed with the dis-aggregation of BSAD. A further one respondent gave a qualified agreement but had reservations. One respondent noted they were undecided at this time but could see advantages and dis-advantages with disaggregating BSAD. The final respondent offered no comment.

The respondents that agreed with dis-aggregating BSAD commented that dis-aggregation would:

- Ensure that SO forward trades are treated in the same way as Bids and Offers;
- Increase the efficiency of the formation of the stack; and
- Increase transparency.

The respondent that was undecided commented that they had a concern that the dis-aggregation of BSAD would have an adverse impact on the SO's position in the market as a distressed buyer. Currently there is some uncertainty that the counter party experiences as to whether the SO is procuring energy from them for constraint purposes or purely energy imbalance purposes. Dis-aggregation of BSAD may have implications on the 'keenness' by which counter-parties price themselves and the cost exposure of the SO. This may lead to an increase in SO costs. The respondent also notes concern over the loss of confidentiality for Trading Parties, particularly with regard to Schedule 7A trades. The loss of confidentiality may lead to Parties being less inclined to enter into such trades.

The respondent with reservations noted that the dis-aggregation of BSAD could lead to it being subject to constraint flagging. The respondent is concerned that this may further contribute to over-flagging which might be discriminatory.

Inclusion of BSAD in the main Energy Imbalance Price calculation

8 respondents believed that BSAD should be included in the main Energy Imbalance Price. One respondent was unsure, one respondent provided no comment and one respondent believed BSAD should not be included.

The respondents that agreed noted that some SO forward trades would have an impact on the Market Price, but on balance preferred that the main Imbalance Price be made up of all actions taken by National Grid to balance the System.

The respondent that disagreed did so because they believed that the SO's forward trades are already reflected in the market price (which is the reverse price) through the introduction or withdrawal of capacity as a consequence of the SO's forward trade actions. The respondent believed the area should be given consideration during the Assessment Procedure and could be a potential option for an Alternative Modification.

The respondent that was unsure commented that if BSAD was not included then there was the potential for actions that the SO was required to take not being included in the main Energy Imbalance Price. The respondent also noted that any forward trades should be included in the main Energy Imbalance Price for the period when they would be required.

Inclusion of Option fees (via the SPA and the BPA) in the main Energy Imbalance Price calculation

7 respondents agreed that option fees should be included in the main Energy Imbalance Price. One respondent offered no comment. One respondent believed the discussion should be had elsewhere, and two respondents disagreed that Option fees should be included in the main Energy Imbalance Price calculation.

The respondents that agreed were in general agreement that option fees form part of SO costs for energy balancing. One respondent commented that reserve was held for the benefit of Parties that are in imbalance. The respondent suggested that when reserve is utilised, it was reasonable that those Parties with imbalance, and/or those with imbalance at times of higher probability of utilisation, should have option fees targeted upon them.

Most respondents commented that they were open to improvements with the way option fees are reflected in the main Energy Imbalance Price.

The respondents in disagreement had differing reasons. One commented that option fees relate to reserve held for the benefit of the system as a whole and should not be targeted at those in imbalance. Another respondent suggested that option fees should be included only in the event that the option is exercised for the purpose of delivering energy and not system actions. However, they believed this may prove too difficult to achieve practically and therefore suggested excluding them may be easier.

4.2.1.3 Modification Group's further discussions following the consultation

Dis-aggregation of BSAD

The Group noted the majority agreement that BSAD should be dis-aggregated. The Group considered the concern raised by a respondent that a loss of confidentiality for counter-parties would reduce the availability of Parties that would enter into forward trades with the SO. The Group considered ways in limiting the loss of confidentiality. The Group agreed that for the purposes of reporting, there was only the need to publish the price and volume of the BSAD trade, and not the BM Unit to which it related. The Group believed this would go some way to reduce the

concern that there could be a loss of confidentiality to counter-parties. A member of the Group suggested that analysis should be done on the number of occasions BSAD in a single Settlement Period contains only a single BM Unit trade. If this was regularly the case it might still be possible to discern the counter-party in a forward trade. The Group agreed that analysis should be conducted on the number of times BSAD is made up of a single BM Unit trade to determine the materiality of the confidentiality issue.

The Group considered a respondent's view that the dis-aggregation of BSAD should be an aspiration, rather than a firm commitment, and should its inclusion should depend on the time and cost to National Grid. The Group agreed that an assessment of the cost and implementation time would be key to a consideration of whether dis-aggregation should enter into the final recommended solution. BSCCo noted that if the Group subsequently discovered that dis-aggregating BSAD was prohibitively expensive or time consuming, then they would be able to create an Alternative Modification without dis-aggregated BSAD.

The Group also considered the governance implications of dis-aggregating BSAD. The Transmission Company member explained that if the Authority approved a solution which recommended the dis-aggregation of BSAD, the Transmission Company would follow its procedures for updating the BSAD Methodology Statement accordingly. The Group would need to consider this requirement as part of the implementation timescales for P217.

Inclusion of BSAD in the main Energy Imbalance Price calculation

The Group noted the respondent's views. The Group's view was that although some National Grid forward trades may have an impact on the Market Price, on balance the Group preferred that the main Imbalance Price be made up of all actions taken by National Grid to balance the System.

Inclusion of option fees (via the SPA and the BPA) in the main Energy Imbalance Price calculation

The Group considered the consultation responses with regards to option fees. The Group noted there was majority support for including option fees in the calculation of the main Energy Imbalance Price. The Group agreed that further consideration of the inclusion of option fees in the main Energy Imbalance Price should form part of the Assessment Procedure. The Group had sympathy with the view that how to incorporate option fees were in the main Energy Imbalance Price calculation was complex and noted the Group was open to improvements, although there were no specific proposals currently put forward. The Group agreed that, were a member to, bring forward a different methodology for incorporating option fees in the main Energy Imbalance Price, then time allowing, this would be considered during the Assessment Procedure.

4.2.2 Treatment of ABSVD

The Group discussed ABSVD volumes. These are MWh adjustments to BM Units that are instructed by the SO to provide automatic frequency response. These volumes are identified ex-post by the SO using a set of matrices of frequency response for each individual BM unit that provides the service. The volume calculated is removed from the Parties account and entered into the SO account. Therefore, this volume is currently socialised via the SO costs. The Group believe the volumes should be represented in the calculation of Energy Imbalance Prices. Including ABSVD would ensure there is an accurate volume included in the NIV (system length) calculation.

The Group noted that whilst in principle it would be ideal to incorporate the ABSVD volume into the calculation of Energy Imbalance Prices, it is not currently practical to do so. This is because of the current ex-post process and therefore it not being available for prompt price reporting timescales.

One member noted that the ABSVD volume partially accounts for the differences between NIV and the Total System Energy Imbalance Volume (TQEI). The Group noted that comparing NIV and TQEI was assessed under P212 'Main Imbalance Price based on Market Reference Price'.

Another member queried whether estimating ABSVD in prompt time scales could occur. Given this is currently effectively a zero volume, would some estimate be systematically better or worse than the current zero value? The Group agreed that, if a way to estimate the value of ABSVD could occur in prompt timescales, then this should be compared to the current baseline.

4.2.2.1 Views of Respondents to Definition Procedure Consultation

One respondent noted that actions included in ABSVD and Non-BM volumes could be taken for a variety of reasons from pure 'energy' balancing to full 'system' balancing, and treatment as 'system' actions not included in imbalance price should be taken only as a pragmatic approach given their current relatively small volume and National Grid's inability to determine a volume/price promptly.

4.2.2.2 Modification Group's further discussions following the consultation

The Group agreed with the respondent's comments that ABSVD and Non-BM Reserve could be taken for 'system', energy plus system' and 'energy' reasons. The Group suggested that for the Definition Report the statement contained in the Definition Consultation that ABSVD and Non-BM Reserve was considered a 'system' balancing action should be removed. One Group member noted that although the Group considered that the treatment of ABSVD and Non-BM Reserve should not change, it should be captured in the BSC Tagging Methodology Statement. The Group agreed that one of the aims of the BSC Tagging Methodology Statement should be to collate all the flagging and tagging rules together in one document.

4.2.3 Treatment of demand side reserve (Non-BM reserve)

The Group discussed non-BM reserve (such as demand side reserve). These volumes are not currently included in the calculation of Energy Imbalance Prices, due to the current ex-post process (similar to ABSVD). Non-BM reserve is not currently calculated in real time and if included would therefore impact prompt prices.

The Group considered two potential ways in which to include Non-BM Reserve volumes, both of which have some disadvantages:

- The demand side reserve provider would have to be assigned to a Supplier account so that they could be issued with a BOA (via the Supplier). This would require some form of tripartite agreement between the provider, Supplier and National Grid. It was thought this could make it unattractive for the provider to continue providing this service; or
- Aggregate the applicable volume so that this can be included in the NIV. This would cause further discrepancy between NIV and TQEI as contract positions would not be adjusted for the non-BM reserve volume.

The Group agreed that, like ABSVD, it would be prohibitively expensive to calculate Non-BM reserve in real time.

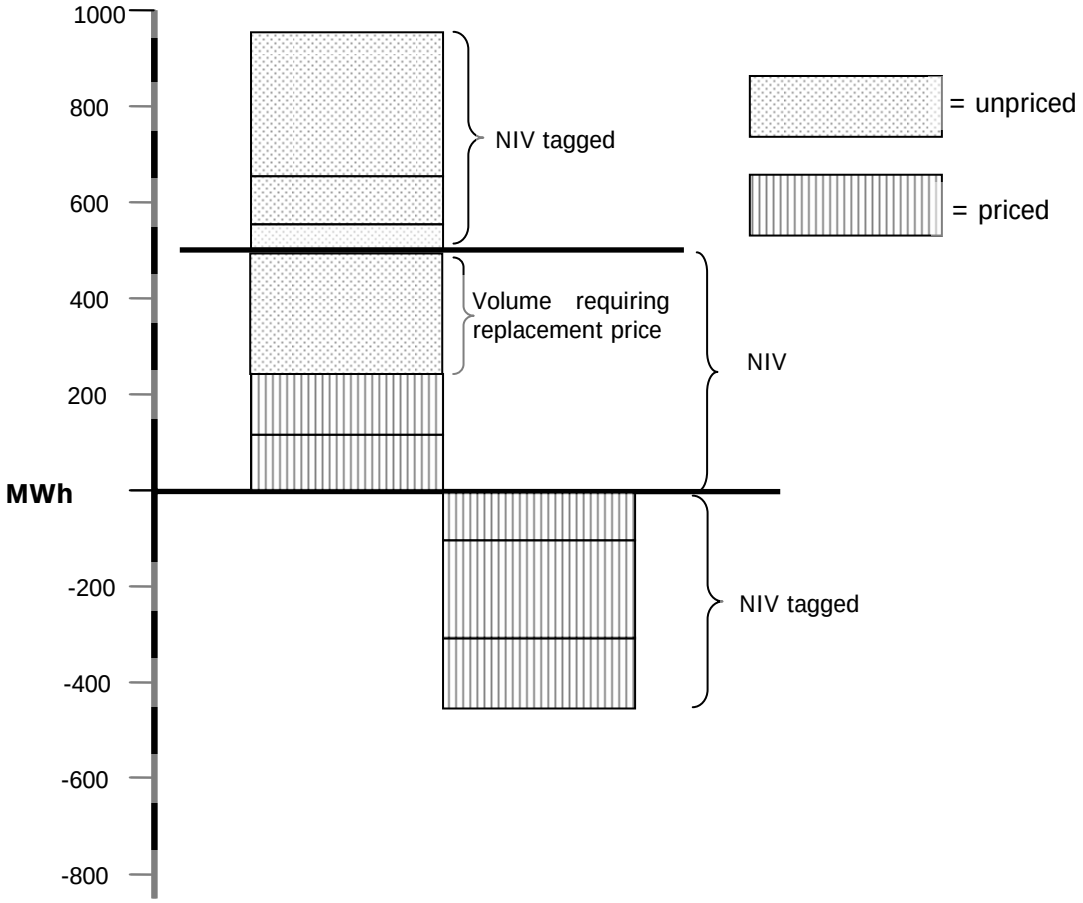
4.2.4 Agreed principles for the treatment of BSAD, ABSVD, demand side reserve actions and imbalance on the SO accounts

The agreed BSAD, ABSVD, demand side reserve actions and imbalance on the SO accounts principles are included in Section 3.3.2.

4.3 Principles governing the Replacement Price Methodology Statement

4.3.1 Modification Group's Initial Discussions

The Group discussed the reasons for needing a replacement price. A Group member explained that there may be situations where 'system' actions (tagged as unpriced volumes by the Tagging Methodology) would be included in the main Energy Imbalance Price. An example is shown in Figure 4.



In the example 220MWh of unpriced volume has entered the NIV. P217 proposes that a replacement price be assigned to this volume as set out in the new BSC Replacement Price Methodology Statement.

The Group discussed the potential options for a replacement price. The initial options for the Replacement Price were:

1 Market Price (currently used as the reverse price); or

2 Volume weighted average of priced non-NIV tagged acceptances; or

3 'Chunky' marginal price of priced non-NIV tagged acceptances (e.g. volume weighted average of the most expensive 'X' MWh e.g. 500MWh, 100MWh or 25MWh); or

4 Marginal Price (i.e. the most expensive 1MWh) of priced non-NIV tagged acceptances.

The Group did not believe a market price would be appropriate, as a market price would not take into account any of the specific conditions for BOAs which are required for system purposes. These specific conditions are likely to mean that 'system' tagged BOAs would have a premium associated with them over 'energy' or 'energy plus system' tagged BOAs. Therefore, the Group believed that a market price would, on average, be too benign.

Some members of the Group believed that a marginal approach would be appropriate because the SO would have had to purchase the unpriced volume (for energy purposes) at a price higher than those prices represented in the NIV stack. Thus the marginal price would be most reflective of the costs of the SO. However, one member noted that there would be a risk with a marginal approach that small, unrepresentative actions could therefore set the Replacement Price. It was also noted that Ofgem had previously indicated (in, for example, their P194 'Revised Derivation of the Energy Imbalance Price' Regulatory Impact Assessment and decision letter) concern that small unrepresentative volumes might set the main Energy Imbalance Price.

One member commented that they were not convinced that a marginal or 'chunky marginal' approach was appropriate for the replacement price. In their view no 'system' actions should enter the calculation of the main Energy Imbalance Price, and hence the replacement price was not required – the main Energy Imbalance Price should be calculated from 'energy' and 'energy plus system' actions alone. However, if a replacement price was sought then the member suggested that the replacement price should reflect the price of the BOA that the SO would have taken had the constraint not been in operation. This approach would require a BMU specific replacement price and there would need to be a moving or weighted average of historical Offers/Bids from that particular BMU in the corresponding market conditions. Another member commented that the BMU/condition specific solution would be very difficult to achieve practically. A third member suggested that one cannot assume that the price of a BOA in a constraint affected area would be different, when compared to a Bid or Offer in an unconstrained area.

Given that 'constraint flagging' might still result in under-tagging, and certain actions taken for 'system' reasons might enter the main Energy Imbalance Price, the Group agreed that it would be pragmatic to have a Replacement Price methodology that is calculated as a volume weighted average of the most expensive 'X' MWh of non-NIV tagged acceptances (a 'chunky marginal' approach).The Group agreed that the size of the 'chunk' should be determined using data analysis as part of the Assessment Procedure.

4.3.2 Views of Respondents to Definition Procedure Consultation

The majority view of the consultation responses agreed with the Group's view that the replacement price should be set using a 'chunky marginal' methodology. Of the 11 responses, 8 agreed with the Group's view. Of those who agreed their reasoning was similar to that of the Group. A number of respondents commented that a marginal price would provide theoretically the closest proxy to the next most expensive action that the SO would have had to have taken to resolve the NIV. However, a marginal approach was not preferred as there was concern that a marginal price could potentially be adversely affected by an unrepresentative BOA, with a price much higher than the rest of the priced actions. For this reason the 'chunky marginal' was seen as the most pragmatic approach.

One respondent disagreed with the chunky marginal methodology as it would add another layer of complexity to the arrangements. In their view it would be simpler to use the most expensive untagged action to ensure that the main Energy Imbalance Price is not diluted. They also stated that the final main Energy Imbalance Price will not be based on the marginal action, but will be

diluted dependent on the PAR value. In their view, having a chunky replacement price and a chunky marginal price would be excessive.

One respondent returned a neutral response pending the data analysis.

One respondent suggested that the replacement price might better be set from an unconstrained schedule. In their view using a 'chunky marginal' approach may be problematic because it is possible that actual volumes and prices submitted may have been affected by the market power (which BMUs sitting behind a transmission constraint might have). In their view, calculating the replacement price from an unconstrained schedule would give a more correct replacement price.

4.3.3 Modification Group's Conclusions

The Group noted the majority agreement from consultation respondents and considered the points raised by those respondents in disagreement. The Group considered whether setting the replacement price from the most expensive untagged action would be a better solution. Although the Group had sympathy with that approach there was concern that it could lead to the situation where a small unrepresentative action would set the replacement price. For that reason the Group considered that a 'chunky marginal' methodology would be a more pragmatic solution.

The Group considered the view that the replacement price should be set from an unconstrained schedule. One Group member agreed with the suggested approach, as they were concerned that there were inherent flaws in using a 'chunky marginal' approach and that a more perfect replacement price would be obtained from using an unconstrained schedule. Some members of the Group agreed that an unconstrained schedule may offer an adequate replacement price, but believed developing an unconstrained schedule for the replacement price to be unnecessarily complex. The view of the majority of the Group was that the most pragmatic approach was to set the replacement price using a 'chunky marginal' methodology.

4.3.4 Agreed Replacement Price Principles

The agreed replacement price principles are included in Section 3.3.3.

4.4 Principles for agreement of the calculation of the main Energy Imbalance Price

4.4.1 Group discussion of the principles for the calculation of the main Energy Imbalance Price

The Group considered the methods by which a main Energy Imbalance Price might be set. The ways suggested by the Modification Proposal are:

- Marginal 'energy' or 'energy plus system' actions;
- 'Chunky marginal' (e.g. PAR 500MWh) volume of 'energy' and 'energy plus system' actions; or
- Volume weighted average of all actions taken for 'energy' and 'energy plus system' purposes in the main stack.

The Group noted that the current main Energy Imbalance Price is based on the volume weighted average of the most expensive 500MWh of priced balancing actions. This pricing structure was introduced by Modification Proposal P194, which introduced a PAR of 100MWh, and then further modified by Modification Proposal P205, which set the current PAR of 500MWh. A member questioned why the PAR had been changed from 100MWh to 500MWh. P205 had been raised as

there was concern that under the PAR 100 methodology SO trades taken for system reasons, for example to resolve transmission constraints, could pollute the main Energy Imbalance Price. Increasing the PAR from 100MWh to 500MWh would reduce the impact of those system actions on the main Energy Imbalance Price.

The Group commented that under P217 the solution attempts to tag such 'system' actions as unpriced (unless they are in merit order), and therefore it was possible to consider a PAR of less than 500MWh, as had been proposed by P194. The Group suggested that this 'chunk' could be less than or equal to the current PAR of 500MWh because P217 would reduce the level of 'system' actions entering the price calculation. One member noted that the chunk would also need a minimum size, so that unrepresentative actions do not pollute the main Energy Imbalance Price. The Group agreed that in principle the main Energy Imbalance Price should be a 'chunky marginal' price, with the 'chunk' determined using data analysis as part of the Assessment Procedure. However, this chunk should be less than or equal to 500MWh.

4.4.2 Views of Respondents to Definition Procedure Consultation

10 respondents agreed with the 'chunky marginal' approach for the main Energy Imbalance Price, with 1 respondent neutral pending the data analysis.

Within the 10 responses were a number of different themes. Some respondents suggest that as P217 is such a large change (with such things as tagging, replacement price, etc) that the PAR level should not be changed – i.e. it should remain at 500MWh.

Other respondents believe that the introduction of the Tagging Methodology Statement the opportunity to reduce the size of the 'chunk'.

One respondent noted their concern that any reduction in PAR would lead to a P205 like Modification Proposal in the future, which would seek to increase PAR.

One respondent commented that there needs to be a compromise of principles that would be acceptable to all Parties and at the same time be reflective and transparent. To this end, they suggest some consideration should be given to an average pricing methodology for the P217 pricing principles.

4.4.3 Modification Group's Conclusions

The Group noted the comment from one respondent suggesting a volume weighted average methodology should be adopted, rather than a margin or 'chunky marginal' methodology. This would be a return to a pre-P194/P205 set of arrangements. One member believed that a volume weighted average of the entire NIV would be acceptable to a broader spread of Parties than a 'chunky marginal' or marginal methodology. The Group noted the view, but reiterated their belief that the 'chunky marginal' methodology was the most pragmatic way to set the main Energy Imbalance Price.

The Group noted that the majority of respondent's had agreed that the main Energy Imbalance Price should be set using a 'chunky marginal' methodology, but that there was disagreement on what the 'chunk' should be. The Group believed that the size of PAR should be re-considered during the Assessment Procedure, and that analysis should be conducted in order to determine an appropriate level for PAR under P217.

The Group agreed that the main Energy Imbalance Price should be set by a 'chunky marginal' methodology, with the 'chunk' determined during Assessment. The Group also determined that the

impact of constraint flagging could mean that the 'chunk' size could be reduced (i.e. the main Energy Imbalance Price would become more marginal). However, this could depend on the analysis of the accuracy of the ex-ante flagging approach. The Group defined that the 'chunk' would therefore be less than or equal to 500MWh.

4.4.4 Agreed principles for the calculation of the main Energy Imbalance Price

The agreed main Energy Imbalance Price principle is included in section 3.3.4.

4.5 Interaction between P217 and other industry governance

4.5.1 Group discussion on the interaction between P217 and other industry governance

Following agreement on the tagging principles the Group considered whether there would be any interaction between P217 and any non-BSC governance documents. The Group noted that as ABSVD will not change, the ABSVD Methodology Statement would not be impacted.

The Group considered that the BSAD Methodology Statement could be potentially impacted in two particular ways. As the Group agreed the principle that BSAD should be disaggregated, the BSAD Methodology Statement would be impacted. The other way relates to the SO's proposed constraint flagging approach. The Group discussed where the SO constraint flagging governance should sit. There was one view that it should be contained within the BSC. Another view was that it should be contained within non-BSC governance, such as an additional section to the BSAD Methodology Statement.

The Group noted that they did not believe the Balancing Principles Statement or National Grid's Transmission License conditions would be impacted by P217.

A Group member questioned how discussion on the Standing Issue 30 (Cash Out Issues) would interact with P217. ELEXON noted they would be progressed as independent areas of work and the meetings would be kept entirely separate, but it would be useful to flag any related issues in each Group's discussion. A Group member noted that the P217 Group should be mindful that P217 had its own timetable and the Group should stick to the timetable.

4.5.2 Agreed principles for the interaction between P217 and other industry governance

The agreed governance principles are included in Section 3.3.5.

4.6 Scope of the required data analysis

4.6.1 Modification Group's Initial Discussions

The Group considered what data analysis would be required for the Assessment Procedure of P217. BSCCo suggested there may be merit in conducting a near real time simulation of the SO's proposed solution to constraint flagging in order to establish how accurate the methodology was at removing system actions. Such a simulation would require the SO to attempt to flag constraints as proposed in Section 4.1.5 on selected days/Settlement Periods. Then, following the period the SO would investigate which BMUs were actually affected by constraints and compare how effectively the ex-ante constraint flagging approach had worked. This would assist the Group in assessing the merits of a key part of the P217 solution.

One member agreed that a simulation of constraint flagging would be useful, and that this would need to be done in near real time in order to be an accurate simulation of constraint flagging. It

was also suggested that several Settlement Periods would be required, in particular Settlement Periods where a constraint was predicted to occur. Another member cautioned against making the scope of such a parallel run too broad as it may be potentially costly to undertake. The Group agreed that it would be desirable to have a simulation of the SO's constraint flagging during the Assessment Procedure, but noted that there may be difficulties with doing so. The Group accepted that such an exercise may have certain limitations in scope.

The Group suggested that historical data analysis would be required during the Assessment Procedure for a number of areas. Analysis would be required to assist the Group in deciding the size of the 'chunk' for the replacement price and the level of PAR. The Group also noted that analysis of the entire solution over a number of sample days would be required. This would allow the Group to compare the main Energy Imbalance Price as it would be under P217 to the existing baseline. The Group agreed that historic analysis on the solution should be conducted.

The Group also considered whether it was worthwhile to undertake analysis into the impacts of P217 on cash-flows and the impacts on different classes of Parties. Whilst some member were still unsure of the benefit of undertaking this analysis, the Group agreed that analysis on cash-flows and a consideration of the impacts of P217 on different classes of Parties should be undertaken.

The Group suggested that it may be worthwhile to conduct analysis on the CADL issue identified in Section 4.1.3 to identify the degree of the issue.

The Group also believed that analysis on BSAD may be necessary, in particular the impact of disaggregated BSAD on price, and with regard to the issue of confidentiality.

The Group considered whether any behavioural analysis was required. There were concerns that modelling a P217 solution would be prohibitively difficult and expensive. It was noted that it was not believed that behavioural analysis was fundamental to assessing P217.

4.6.2 Views of Respondents to Definition Procedure Consultation

The majority of respondents agreed that the analysis as proposed in the Definition Consultation document was sensible and robust way of assessing P217. Respondents highlighted different areas of the proposed analysis which they believed to be of particular importance.

One respondent suggested that analysis should be conducted on CADL to ascertain how well it tags out short period duration 'system' actions.

One respondent suggested that cash-flow analysis on difference classes of Parties should not form the basis of the assessment of the modification. Their reasoning is that if the correct principles of cash-out are applied, and the P217 solution satisfies those principles then the impacts on Parties (or 'classes of Parties') are by definition appropriate and incidental to the fundamental principles.

One respondent suggested that it would be prudent for the Group to re-consider P205's analysis as well as P194's analysis.

4.6.3 Modification Group's Conclusions

The Group considered whether analysis should be conducted on CADL to establish how well it identified short duration actions. A Group member noted that the CADL review was already conducted annually by BSCCo and that it would be a duplication of work for the Group to also review the effectiveness of CADL. The Group agreed that they had already defined that CADL was the most pragmatic approach to identifying short period duration 'system' actions, and that no

analysis should be undertaken on how accurate this identification is. The Group noted that this did not impact their desire to review and analyse the CADL issue identified in Section 4.1.3.

The Group considered whether cash-flow analysis should be conducted. One member suggested that cash-flow analysis may be a distraction, and that Residual Cashflow Reallocation Cashflow (RCRC) was be an area that is being considered by the Standing Issue 30 Group. Another member commented that cash-flow analysis would be worth considering for competition purposes. Following this discussion the Group agreed that cash-flow analysis should be conducted.

The Group agreed with the respondent that suggested they re-consider the analysis for P205 and P194.

The Group discussed how the various forms of analysis may be used to assist the Group. BSCCo commented that in order to assess the various aspects of P217, it would be necessary to have some measure for each of them. Therefore, for locational transmission constraints, following an ex-ante constraint flagging simulation, there would need to be an assessment of how accurately the ex-ante 'flags' correlate to an ex-post reconsideration by the SO. Then there would need to be an analysis of how this impacted the main Energy Imbalance Price.

The Transmission Company representative drew the Group's attention to the work that was carried out for the P211/P212 RIA. As part of the P211/P212 RIA a Proxy Energy Price (PEP) had been calculated. This PEP was a price calculated by the Transmission Company through ex-post analysis of the reasons for taking each BOA, and based on the rules and assumptions provided by Ofgem. The Transmission Company representative noted that as part of the P211/P212 RIA, work had been conducted solely on establishing an unpublished version of the PEP that was uninfluenced by transmission constraints. The Group agreed that they would need to consider whether this work would be relevant for P217.

One Group agreed that it was important to do analysis using specific periods in which transmission constraints have been identified or in which there was system stress, (such as the event detailed in the Modification Proposal (28/29 September 2007)).

One Group member suggested that to simplify the analysis of the main Energy Imbalance Price and dis-aggregated BSAD, the two sets of analysis could be conducted separately, i.e. during the historic analysis BSAD should be used. A separate exercise could then be undertaken to examine the impact of dis-aggregated BSAD. The Group agreed that this may be a sensible way forward to reduce the analysis burden.

4.6.4 Agreed scope of data analysis for the Assessment Procedure

The agreed areas of analysis to be undertaken as part of the Assessment Procedure are included in Section 3.3.6

5 Rationale For Modification Group's Recommendations To The Panel

The Modification Group believes that the Proposed Modification is now sufficiently defined, such that the areas raised by P217 may be fully assessed in order to establish whether it would better facilitate the achievement of the Applicable BSC Objectives. The Group therefore recommends that P217 should proceed to the Assessment Procedure in order to consider the following remaining areas of the Terms of Reference:

- The detailed rules for the BSC Tagging Methodology Statement;

- The detailed rules for the constraint flagging methodology for identifying locational transmission constraints as developed by National Grid;
- The detail rules for the BSC Replacement Price Methodology Statement, including the size of the 'chunk' used to determine the replacement price;
- Reassess the PAR volume for the main Energy Imbalance Price;
- The required governance arrangements for the Tagging Methodology Statement and Replacement Price Methodology Statement and any interaction with BSAD Methodology Statements;
- 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, including its dis-aggregation, inclusion of BSAD in the main Energy Imbalance Price calculation, and the inclusion of Option fees (via the BPA and SPA) in the calculation of the main Energy Imbalance Price;
- The required reporting under the P217 proposed arrangements; and
- Detailed analysis of the impact on Energy Imbalance Prices.

The Group invites the Panel to agree the above Terms of Reference for the Assessment Procedure, subject to any amendments proposed by the Panel.

The Group estimates that assessment of P217 will require:

- 10 Modification Group meetings;
- 1 industry consultation;
- 2 BSC Agent impact assessments;
- 2 Party/Party Agent impact assessments;
- 2 BSCCo impact assessments;
- 2 requests for Transmission Company analysis; and
- The provision of external legal advice by Denton Wilde Sapte (DWS).

The Group therefore recommends a 4.5-month Assessment Procedure timetable for P217. Details of the proposed timetable are shown in Appendix 4.

6 Terms Used In This Document

Other acronyms and defined terms take the meanings defined in the Code.

Acronym / Term	Definition
ABSVD	Applicable Balancing Services Volume Data.
BMRA	Balancing Mechanism Reporting Agent.

Acronym / Term	Definition
BMRS	Balancing Mechanism Reporting Service
BSAD	Balancing Services Adjustment Data.
BSUoS	Balancing Services Use of System
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'.
MaxGen	The Maximum Generation Service allows access to capacity which is outside of the Generator's normal operating range in emergency circumstances. MaxGen will be initiated in specific circumstances by the issuing of an Emergency Instruction in accordance with the Grid Code BC2.9.2.
NIV	Net Imbalance Volume.
OCGT	Open Cycle Gas Turbine
PAR Volume	Price Average Reference Volume, the volume of actions that are used to set the Main Energy Imbalance 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.
SQSS	Security and Quality of Supply Standards
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.
TQEI	Total System Energy Imbalance Volume

7 Document Control

7.1 Authorities

Version	Date	Author	Reviewer	Reason for Review
0.1	22/01/07	Andrew Wright	P217 Modification Group, Chris Stewart, Emrah Cevik	For Modification Group review and quality review
0.2	25/01/07	P217 Modification Group	David Jones	For quality review
1.0	28/01/07	P217 Modification Group	Panel	For Panel decision

7.2 References and list of Attachments

7.2.1 Attachments

Attachment 1 – Background to BSAD

Attachment 2 – Definition Consultation responses broken down by Party

Attachment 3 – Definition Consultation responses broken down by question

7.2.2 References

Ref.	Document Title	Owner	Issue Date	Version
1	**P211 Final Modification Report**	**BSC Panel**	**05/10/07**	1.0
2	**P212 Final Modification Report**	**BSC Panel**	**17/12/07**	1.0
3	**P217 Initial Written Assessment**	**BSCCo**	**02/11/07**	1.0
4	**P217 Definition Consultation**	**P217 Modification Group**	**19/12/07**	1.0

Appendix 1: 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/modProposalView.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
16/01/2008	Fourth Definition Modification Group Meeting
01/02/2008	Definition Report presented to the Panel

ESTIMATED COSTS OF PROGRESSING MODIFICATION PROPOSAL[18]	
Meeting Cost	£5,000
Legal/Expert Cost	£12,500[19]
Impact Assessment Cost	£10,000
ELEXON Resource	194 man days £44,690

[18] 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

[19] 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.

Modification Group Membership

Member	Organisation	12/11	19/11	14/12	16/01
David Jones	ELEXON (Chairman)	X	✓	X	✓ (part)
Andrew Wright	ELEXON (Lead Analyst)	✓	✓	✓	✓
Bill Reed	RWE npower (Proposer)	✓	✓	✓	✓
Rob Smith	National Grid	✓	✓	✓	✓
Paul Mott	EDF Energy	✓	✓ (part)	X	X
Martin Mate	British Energy	X	✓	✓	✓
Ian Moss	APX	✓	✓	✓	✓
Ben Sheehy	E.ON	✓	✓	✓	✓
Libby Glazebrook	First Hydro Company	X	✓	✓	✓
Garth Graham	Scottish and Southern	✓	X	X	✓
Man Kwong Liu	Scottish Power	✓	✓	✓	✓
Bob Brown	Cornwall Energy	✓	✓	X	X
Dave Wilkerson	Centrica	✓	✓	X	✓
Attendee	**Organisation**				
Justin Andrews	ELEXON	✓	✓	✓	X
Chris Stewart	ELEXON	X	✓	✓	✓
Emrah Cevik	ELEXON	X	X	✓	✓
Natasha Hall	ELEXON (Lawyer)	X	X	X	X
Rosalind Hartley	ELEXON	X	✓	✓	X
Ben Woodside	Ofgem	✓	✓ (part)	✓	✓
Ben Smithers	Ofgem	✓	✓	X	✓
Adrian Palmer	Ofgem	X	X	✓	X
Sebastian Eyre	EDF	✓	X	X	✓ (part)
Andrew Colley	Scottish and Southern	X	✓	✓	X
Neil Rowley	National Grid	✓	✓	✓	✓
Lisa Waters	Waters Wye	X	✓	✓	✓
Stephen Carter	EDF Energy	✓	✓	✓	✓
John Guest	LogicaCMG	✓	✓	✓	X
Mark Gribble	LogicaCMG	X	✓	✓	X

Stuart Cotten	Drax Power Limited	**X**	**X**	**X**	✓

Modification Group Terms Of Reference

Modification Proposal P217 will be considered by a new Modification Group, the P217 Modification Group, comprised of members of the Pricing Standing Modification Group (PSMG), and members of other Modification Standing Groups with the relevant expertise in the areas of Cash-out, Energy Imbalance Pricing, energy and system balancing, tagging and default price rules.

1. DEFINITION PROCEDURE

1.1 The Modification Group will carry out a Definition Procedure in respect of Modification Proposal P217 pursuant to section F2.5 of the Balancing and Settlement Code.

1.2 The Modification Group will produce a Definition Report for consideration at the BSC Panel Meeting on 14 February 2008.

1.3 The Modification Group shall consider and/or include in the Definition Report as appropriate:

- Principles governing the Tagging Methodology Statement
- Principles governing the Replacement Price Methodology Statement
- Principles for the treatment of BSAD, ABSVD, demand side reserve actions and imbalance on the SO accounts
- Interaction between P217 and other industry governance
- Principles for agreement of the calculation of the main Energy Imbalance Price
- Scope of the required data analysis

Appendix 2: Results Of Definition Procedure Consultation

11 responses were received to the P217 Definition Procedure consultation.

A summary of the consultation responses is provided in the table below.

Q	Consultation Question	Yes	No	Neutral / Other
1	Do you support the approach described in the Definition Consultation document?	11	0	0
2	Do you believe that P217 has the potential to improve simplicity and transparency in the cash out arrangements?	4	1	6
3	Do you agree with the Modification Group's approach on tagging principles as set out in Section 4.1 of the Definition Consultation document? Views would be welcome on Arbitrage, De Minimis, CADL, BSAD, constraints, ABSVD, Non-BM Volumes, Emergency Instructions and MaxGen.	5	0	6
4	Would you support the disaggregation of BSAD?	8	0	3
5	Do you believe that BSAD should be included in the main Energy Imbalance Price calculation?	8	1	2
6	Do you believe that Option fees (via the BPA and SPA) should be included in the main Energy Imbalance Price calculation?	7	0	2
7	Do you agree with the Modification Group's view that the replacement price should be set using the 'chunky marginal' methodology?	8	1	2
8	Do you agree with the Modification Group's view that the main Energy Imbalance Price should be set using the 'chunky marginal' methodology?	10	0	1
9	Do you agree with the Modification Group's view that constraint information should be published ex-post, do you support this view?	9	2	0
10	Do you agree with the list of intended analysis to be completed during the P217 Assessment Procedure? Are there any other areas of analysis that you would find beneficial in assessing P217?	9	0	2

Q	Consultation Question	Yes	No	Neutral / Other
11	Are there any issues not identified in this report that you believe should be considered during the Assessment Procedure, should the Panel agree to submit P217 to the Assessment Procedure?	2	8	1

Full copies of the consultation responses are attached as separate documents, Attachment 2 – Definition Consultation responses broken down by Party, Attachment 3 – Definition Consultation responses broken down by question.

Appendix 3: Results Of Impact Assessment

No impact assessment was commissioned during the Definition Procedure. BSCCo's initial assessment of the impacts of P217 can be found in the P217 IWA, and a full impact assessment will be undertaken during the Assessment Procedure.

Appendix 4: Proposed Assessment Procedure Timetable

ID	Task Name	Duration	Start	Finish
1	P217 Assessment Procedure	95 days?	Fri 01/02/08	Thu 12/06/08
2	Panel meeting	0 days	Fri 01/02/08	Fri 01/02/08
3	MG meeting 1 - detailed tagging rules, agree analysis, Option fees	0 days	Wed 06/02/08	Wed 06/02/08
4	Initial analysis - BSAD single trades, dis-aggregated historic prices, const	10 days	Thu 07/02/08	Wed 20/02/08
5	MG meeting 2 - detailed tagging rules, Option fees, replacement price	0 days	Tue 19/02/08	Tue 19/02/08
6	MG meeting 3 - present initial analysis, agree first draft of tagging rules, a	0 days	Wed 27/02/08	Wed 27/02/08
7	Draft Req Spec v1.0	4 days?	Thu 28/02/08	Tue 04/03/08
8	Replacement price 'chunk' analysis'	10 days	Fri 29/02/08	Thu 13/03/08
9	Group reviews Req Spec v1.0	3 days?	Wed 05/03/08	Fri 07/03/08
10	MG meeting 4 - review Req Spec v1.0	0 days	Fri 07/03/08	Fri 07/03/08
11	Issue Req Spec v1.0 for IA	10 days	Mon 10/03/08	Fri 21/03/08
12	MG meeting 5 - assess replacement price analysis, agree PAR analysis	0 days	Wed 19/03/08	Wed 19/03/08
13	Main EIP 'chunk analysis	10 days	Thu 20/03/08	Wed 02/04/08
14	Issue Req Spec v1.0 responses to Group	1 day?	Mon 24/03/08	Mon 24/03/08
15	MG meeting 6 - discuss IA responses	0 days	Wed 26/03/08	Wed 26/03/08
16	Constraint flagging solution ready for Group consideration	0 days	Wed 09/04/08	Wed 09/04/08
17	MG meeting 7 - consider constraint flagging, agree historic data analysis	0 days	Wed 09/04/08	Wed 09/04/08
18	Draft Req Spec v2.0	4 days?	Thu 10/04/08	Tue 15/04/08
19	Historic data analysis	10 days	Thu 10/04/08	Wed 23/04/08
20	Constraint analysis parallel run	10 days	Fri 11/04/08	Thu 24/04/08
21	Group reviews Req Spec v2.0	3 days?	Wed 16/04/08	Fri 18/04/08
22	MG meeting 8 - discuss Req Spec v2.0	0 days	Mon 21/04/08	Mon 21/04/08
23	Issue Req Spec v2.0 for IA	10 days	Tue 22/04/08	Mon 05/05/08
24	Draft Assessment consultation	3 days	Wed 23/04/08	Fri 25/04/08
25	Group reviews Assessment Consultation	3 days	Mon 28/04/08	Wed 30/04/08
26	Issue Req Spec v2.0 responses to Group	1 day?	Thu 01/05/08	Thu 01/05/08
27	MG meeting 9 - Assessment Consultation, constraint analysis, historic dat	0 days	Thu 01/05/08	Thu 01/05/08
28	DWS draft legal text	5 days	Fri 02/05/08	Thu 08/05/08
29	Issue Assessment Consultation	10 days	Mon 05/05/08	Fri 16/05/08
30	Legal text internal review	10 days	Fri 09/05/08	Thu 22/05/08
31	Assessment Consultation responses issued to Group	4 days	Tue 20/05/08	Fri 23/05/08
32	Issue legal text to Group for review	6 days	Thu 22/05/08	Thu 29/05/08
33	Draft Assessment Report	4 days	Thu 22/05/08	Tue 27/05/08
34	MG Assessment meeting 10 - Applicable BSC Objectives	0 days	Mon 26/05/08	Mon 26/05/08
35	Group review Assessment Report by correspondence	4 days?	Wed 28/05/08	Mon 02/06/08
36	Group returns legal text comments	0 days	Mon 02/06/08	Mon 02/06/08
37	Update Assessment Report with Group comments	4 days	Tue 03/06/08	Fri 06/06/08
38	Submit Assessment Report to Panel	0 days	Fri 06/06/08	Fri 06/06/08
39	Panel meeting	0 days	Thu 12/06/08	Thu 12/06/08