

## **URGENT MODIFICATION REPORT for Modification Proposal P205 – 'Increase in PAR level from 100 MWh to 500 MWh'**

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**Proposed Modification P205** seeks to revise the Price Average Reference (PAR) Volume from 100 to 500 MWh.

### **BSC PANEL'S RECOMMENDATIONS**

Having considered and taken into due account the contents of the P205 draft Urgent Modification Report, the BSC Panel recommends:

- **that Proposed Modification P205 should be made;**
- **an Implementation Date for Proposed Modification P205 of 2 November 2006 if an Authority decision is received on or before 26 October 2006, or 5 Working Days following an Authority decision if received after 26 October 2006; and**
- **the proposed text for modifying the Code, as set out in the Modification Report.**

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

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

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## SUMMARY OF IMPACTED PARTIES AND DOCUMENTS

As far as the Modification Group has been able to assess, the following parties/documents would be impacted by P205. Please note that this table represents a summary of the full impact assessment results contained in Appendix 3.

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

## 1 EXECUTIVE SUMMARY

The key conclusions of the P205 Modification Group ('the Group') taken into account by the Panel in formulating its recommendation contained in this report are outlined below.

The Group:

- **CONSIDERED** imbalance pricing data from 2004 to 2006;
- **CONSIDERED** a number of potential Alternative Modifications but **AGREED** that none of these should be progressed;
- **IDENTIFIED** arguments relevant to the assessment of P205 against the Applicable BSC Objectives;
- Were **SPLIT** as to whether P205 would better facilitate achievement of the Applicable BSC Objectives;
- **AGREED** a recommended Implementation Date for Proposed Modification P205 of 2 November 2006 if an Authority decision is received on or before 26 October 2006, or 5 Working Days following an Authority decision if received after 26 October 2006; and
- **AGREED** the proposed text for modifying the Code.

A description of the P205 solution is provided in Section 2. A summary of the Group's views regarding the merits of the Proposed Modification can be found in Section 3.

## 2 DESCRIPTION OF MODIFICATION

This section outlines the solution for the Proposed Modification, as developed by the Group during the Modification Procedures.

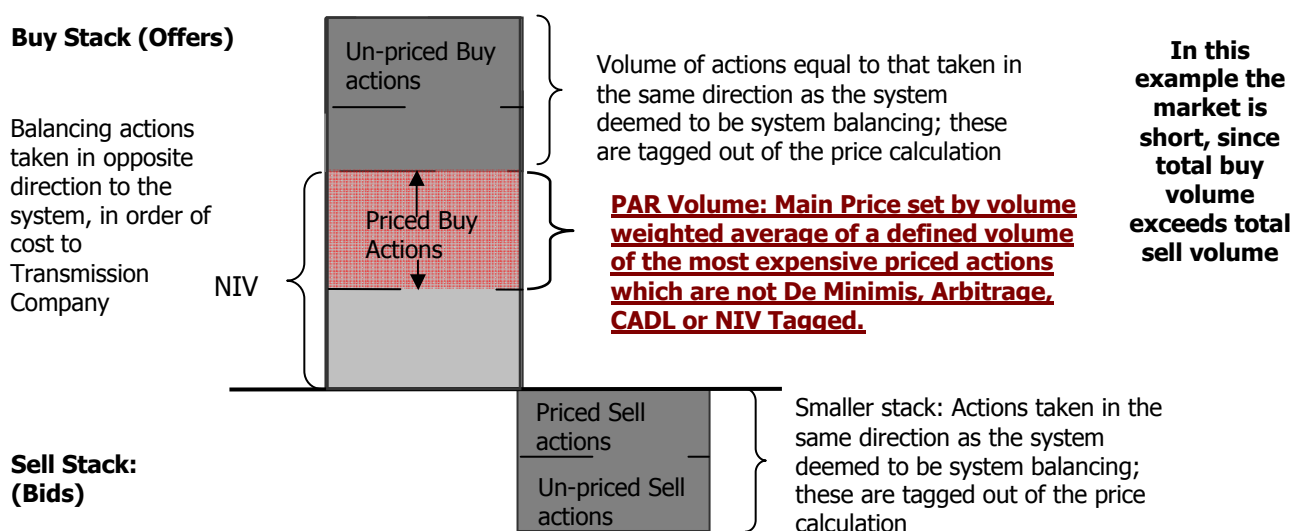
### 2.1 Interaction with P194

An Authority determination in respect of Approved Modification P194 – 'Revised Derivation of the 'Main' Energy Imbalance Price' ("P194") was issued on 23 March 2006 to be implemented on the 2 November 2006. As such, P194 provides the baseline against which P205 must be assessed and references within this document to the current baseline are to the baseline including P194.

### 2.2 Proposed Modification P205

Modification Proposal P205 'Increase in PAR level from 100 MWh to 500 MWh' (P205) was raised by Good Energy Ltd ('the Proposer') on 4 July 2006. Proposed Modification P205 would increase the PAR volume introduced under P194 from 100 to 500 MWh.

The PAR mechanism requires the use of a pre-defined volume for identifying actions used to set the main<sup>3</sup> Energy Imbalance Price (under Approved Modification P194 this value is 100 MWh). This volume is referred to as the PAR volume. The PAR mechanism is illustrated in the following diagram:



Any increase in the size of the PAR volume tends the resulting Energy Imbalance Price towards an average price as calculated under the pre-P194 baseline (as the PAR volume tends to NIV). A smaller PAR volume will tend the resulting price towards a purely marginal price (as the PAR volume tends to zero).

The Modification Group considered whether Proposed Modification P205 should provide the ability for the Panel to review the PAR value in the future, since the proposal had suggested that the PAR value would be revisited following winter 06/07. However, the Proposer clarified that it was not the intention to introduce a review process, it had been envisaged any further amendment of the PAR value would be progressed via a subsequent Modification Proposal. As such, the Proposed Modification does not include the introduction of a Panel review process.

### 2.3 Alternative Modification

No Alternative Modification was developed.

<sup>3</sup> The Energy Imbalance Price applied to imbalances in the same direction as the system.

### 3 AREAS CONSIDERED BY THE MODIFICATION GROUP

The following areas were considered by the Modification Group during the Urgent Modification Procedures for P205:

- PAR Volume;
- Impact on Specific Participant Types;
- Actions Setting Energy Imbalance Prices;
- Impact on Energy Imbalance Prices;
- Cost Reflectivity of Energy Imbalance Prices;
- Incentives to Balance;
- Impact on Liquidity;
- Implications for Security of Supply;
- Impact on the Residual Cashflow Reallocation Cashflow;
- Impact on Credit Cover;
- Potential Alternative Modifications; and
- Other Areas Raised by Consultation Respondents.

These issues are considered in more detail in the remainder of this section.

#### 3.1 PAR Volume

The Modification Group discussed the PAR volume, in terms of the justification for the prevailing 100 MWh value and the rationale for the proposed move to 500 MWh.

##### 3.1.1 Justification for 100MWh

The Modification Group noted that, under P194, a PAR value of 100 MWh had been proposed to more closely align Energy Imbalance Prices with the price of the most expensive balancing action remaining following application of the tagging mechanisms (i.e. the most expensive balancing action deemed to be energy balancing via the existing tagging mechanisms). Using a defined volume of actions rather than the single most expensive (in terms of cost to the System) action was intended to avoid any issues raised by using a single or small volume balancing action to set the Energy Imbalance Price (see Section 3.3).

Under P194 a number of members of the Modification Group had expressed concern with the proposed introduction of the PAR Volume, since they believed it was difficult to justify any value used. However, it was considered that a value of 100 MWh would meet the objective of the PAR mechanism i.e. would create a pricing signal more closely aligned with the marginal energy balancing action, whilst limiting occurrences of a single balancing action setting the Energy Imbalance Price. Under P194, potential Alternative Modifications with PAR values of 200 MWh or 500 MWh had been suggested and considered by the Modification Group. However, these were not progressed since they were not considered to meet the objective of P194 (i.e. did not align the resulting Energy Imbalance Price with the marginal energy balancing action).

It was noted by the Group that, on the basis that the PAR Volume is intended to avoid using a single or small volume acceptance to set Energy Imbalance Prices, average Bid/ Offer Acceptance Volumes had been considered under P194. It was noted that, using the average Acceptance Volume plus two standard deviations (approximately 113 MWh) would statistically suggest that more than one balancing action would be used to set the price approximately 95% of the time. Therefore, under P194 the Modification Group had concluded that a PAR volume of 100 MWh would ensure that the Energy Imbalance Price was set by more than one action the majority of time, whilst more closely aligning the resulting energy imbalance price with the price of the marginal energy balancing action.

### 3.1.2 Rationale for Proposed Move to 500MWh

The Modification Group discussed the rationale for the proposed increase in the PAR volume.

The Proposer indicated that P205 had been raised due to concerns that a PAR value of 100 MWh would expose Parties to significant commercial risk, particularly over winter 06/07. Whilst the PAR value of 100 MWh may provide strong signals to the market and a sharp incentive to balance, there is a limit to the extent participants can respond. For example, there is limited liquidity in the market, it is impossible to forecast demand entirely accurately and there will always be a risk of plant breakdown. Hence, a PAR value of 100 MWh may not actually increase the level to which Parties avoid imbalance exposure and will penalise those Parties which are not able to balance their positions more accurately.

The Proposer suggested that some wind generation may be particularly affected, since they generally spill their output and tend to have a contract linked to the value of System Sell Price (SSP). A PAR value of 100 MWh will reduce the average value of SSP and lead to a higher frequency of negative SSPs (resulting in affected generators paying to produce energy). This will reduce the income that some wind generation receives and potentially reduce investment in wind power. Any detrimental impact on renewable generation does not promote competition and is not consistent with wider government policy.

The Proposer noted that analysis conducted during the progression of P194 was based on data for 2004/05. Since 2004/05, market prices have become more volatile and, as such, 2004/05 historical data is unlikely to reflect the true impact of a PAR value of 100 MWh on smaller Parties and non-signatory operators.

The Proposer recognised that the Authority had indicated its intention to conduct a review to analyse the impact and effects of P194 six months after implementation. However, this could be too late for those participants materially affected by P194. The Proposer considered it would be more appropriate to gradually reduce the PAR value over time, rather than setting it at 100 MWh and then assessing the effects.

The rationale behind the proposed move to a PAR value of 500 MWh is to recognise the desire for increased pricing signals at times of System stress, whilst providing Energy Imbalance Prices more closely aligned to the pre-P194 average pricing methodology at other times. By doing so, P205 would promote competition, in particular benefiting those forms of renewable generation with high levels of imbalance exposure.

Overall the Proposer considered that a PAR value of 100 MWh puts too much emphasis on efficient operation of the Transmission System at the expense of promoting competition. The proposed move to a 500 MWh value would strike a more appropriate balance between these two objectives.

The Modification Group noted that there is no specific objective under the BSC to promote the development of renewable generation and, whilst the Authority could consider wider government policy when making its decision, the Group's assessment in this area must be linked to promotion of competition.

It was noted that wholesale electricity prices are increasing, primarily due to increasing fuel costs. Renewable generation will benefit from increases in market prices, particularly if they are not exposed to fuel costs. It was suggested by one member of the Modification Group that any benefit from rising market prices is likely to outweigh any average change in SSP under a PAR value of 100 MWh. It was also noted that other mechanisms exist to support renewable generation and it is not the role of the Code to consider this area. However, one Modification Group member considered that Renewable Obligation Certificates were introduced to provide a subsidy to renewable generators, but the benefit is being systematically eroded by different regulated costs.

One Modification Group member noted that there was an apparent contradiction in the rationale for the proposal, since it was stated that participants cannot balance their positions more than they do at present, whilst at the same time recognising that some forms of wind generation consistently spill their output and would not attempt to balance their position regardless of the value of PAR.

Some members of the Modification Group felt that concerns relating to the change in the average value of SSP could be addressed outside the Code via appropriate structuring of contracts.

A number of the Modification Group members supported the view that a PAR value of 500 MWh would be more appropriate as it would focus the impact of the PAR mechanism to those periods where the System was particularly out of balance. Others were of the view it was important to have imbalance prices aligned with the marginal energy balancing action at all times and that this would not be achieved with a PAR value of 500 MWh.

### 3.1.3 Views of Respondents to Urgent Modification Consultation

| Consultation question   | Values                 |
|---|------------------------|
| Please outline the PAR value you believe is most appropriate and provide rationale? | 500, >100, 100, <10MWH |

Those respondents supporting a PAR value of 500 MWh expressed the view that a sufficient incentive to balance would be provided, particularly at times of System stress, whilst not unduly impacting participants at other times.

Those respondents in support of a PAR value of 100 MWh were of the view it would provide imbalance prices that reflected the marginal cost of balancing energy.

One respondent, in support of imbalance prices aligned with the marginal energy balancing action, suggested that an increase in the PAR value might be appropriate if the effect of system trades was shown to be significant under the current baseline.

One respondent suggested that a value of less than 10 MWh should be used, since justification based on the potential to manipulate prices was questionable and a smaller value is more closely aligned with the marginal cost of balancing energy.

A number of respondents supported the view that it would be sensible to start with a large value of PAR and reduce it over time, rather than waiting to see if problems occur with a PAR value of 100 MWh.

One respondent expressed the view that P205 highlighted the need for robust criteria to determine the PAR value.

### 3.1.4 Modification Group's Conclusions

The Group recognised that the aim of the PAR mechanism as introduced under P194 is to:

- Align the resulting imbalance price with the cost of the most expensive balancing action remaining following application of the existing tagging rules;
- Limit the frequency of one balancing action setting the main imbalance price; and
- Reduce the impact of System actions not removed by the existing tagging mechanisms.

Any defined criteria for assessing the PAR value would therefore need to consider each of these areas. However, the Group agreed that this was not practical to conduct analysis that would reveal the 'correct' PAR value on the basis of these areas. In particular, it is difficult to determine the impact of Systems actions without utilising despatch modelling to determine the balancing actions that would have been required in the absence of limitations imposed by the System. However, it was recognised that under P194 consideration had been given to each of these areas in determining the PAR value.

The Group agreed that, even if it were possible to use objective criteria to determine a PAR value, the discussion of whether a PAR value of 100, 500 or any other value should be used would always distil to views on whether it was appropriate for imbalance prices to be aligned with the marginal energy balancing action.

The Group agreed that an alternative PAR value should not be progressed under P205. In the absence of defined criteria for determining a PAR value and recognising that consideration of any value would be driven



by views on whether or not imbalance prices should be aligned with the marginal cost of balancing energy, the questions raised by an alternative value would be the same as those raised by comparing 500 and 100 MWh.

### 3.2 Impact on Specific Participant Types

The Modification Group considered the extent to which it is appropriate to justify a change to the imbalance pricing mechanism based on the impact on certain participant types.

The Modification Group recognised that it is difficult for Parties to enter the market, that some participants will tend to face higher exposure to imbalance prices and that the cost of managing imbalance exposure will be proportionally higher when trading smaller volumes. However, it was noted by the Modification Group that Energy Imbalance Prices should appropriately reflect the costs incurred by the Transmission Company to balance the System. Provided this is the case, Parties can make their own commercial decision on the most efficient balance between resolving their imbalance positions and allowing the Transmission Company to resolve any imbalance on their behalf.

A number of Modification Group members felt larger participants will always have a natural advantage in any market, since the cost of trading small volumes of any commodity will always be proportionally higher. It would be inappropriate to make amendments to the Energy Imbalance Pricing mechanism to protect certain categories of participant. These Modification Group members felt that it was important that costs are appropriately reflected onto participants and that imbalance prices provide appropriate signals to the forwards market. Effective competition is only achieved when participants are subject to appropriate costs and the imbalance prices provide appropriate signals to the forwards market, as this will ensure that participants enter the market when it is economic to do so. Whilst introducing changes to protect small Parties may encourage new entrants to the market, this would not be efficient competition since their entry would effectively be subsidised by other participants.

One Modification Group member questioned whether it was appropriate to change the pricing signals for everyone to support a subset that could not balance.

Some Modification Group members were of the opinion that market arrangements, in particular the imbalance charging arrangements, currently favour large vertically integrated Parties. As such, certain participants are unduly disadvantaged by the Code arrangements. Hence, it is appropriate to consider mitigating issues created by the market structure via revision of the Code as suggested by P205.

### 3.3 Actions Setting Energy Imbalance Prices

The Modification Group noted that P194 had proposed the PAR mechanism rather than a purely marginal pricing mechanism to avoid concerns that had been expressed by the Authority that:

*"....marginal cash-out prices could create distortions because they could be set based on a very small volume of energy accepted by the SO or alternatively based on a System Balancing action."*

It was considered by the Group that the concerns expressed by the Authority were based on the following:

- It could be considered that using a single action to set the main imbalance price could make the arrangements more open to manipulation. Since, if a single action regularly sets the price and this single action is consistently taken on the same BM Unit, this BM Unit may be in a position to manipulate the Energy Imbalance Price. Although the Group noted that no credible method to achieve this manipulation had previously been identified.
- It is generally considered that Energy Imbalance Prices should be based on balancing actions taken to resolve the energy imbalance on the System, rather than actions which have been taken to resolve constraints on the System. It is widely acknowledged that it is impossible to determine whether or not any individual balancing action was a pure energy balancing action. Therefore, any tagging mechanisms

used to remove balancing actions from the pricing calculation not considered purely energy balancing will be imperfect. Taking the volume weighted average of all un-tagged actions could be considered to reduce the impact of any imperfections in the tagging mechanisms. Therefore, using a small volume of energy or a single action to set the price could be considered to increase the influence of actions which are not purely energy balancing.

By setting the Energy Imbalance Price on a volume weighted average of a defined proportion of actions rather than a single marginal action, the PAR mechanism seeks to address these concerns. The Modification Group considered the extent to which these concerns would justify a move from a PAR value of 100 MWh to 500 MWh.

### **3.3.1 Single Action**

The Group noted that analysis conducted during the progression of P194 indicated that in the majority of cases more than one balancing action would set the main Energy Imbalance Price under a PAR value of 100 MWh. In addition, the Group noted that the marginal action remaining following application of the existing tagging rules was generally taken on different BM Units. The Modification Group noted analysis provided by one member of the Group (see Appendix 4) indicating that, although more than one action typically sets the price under a PAR value of 100 MWh, in some cases all actions may be from BM Units owned by the same corporate group. Another argument was identified that suggested it would be easier to manipulate imbalance prices under a PAR value of 500 MWh, since it would be easier to ensure that a particular BM Unit was one of those affecting the imbalance price. However, the Group agreed that, even if it was the case that a single Party or corporate group consistently provided the balancing action(s) which set the main Energy Imbalance Price, it could not envisage any circumstance under which that Party or group could predictably and consistently manipulate that situation to its own benefit. Therefore, the Group did not have a concern that, under a PAR value of 100 MWh, Parties would be able to consistently manipulate Energy Imbalance Prices. Even in the unlikely case manipulation did occur it would probably be detected by the industry and/or the Authority.

One respondent to the industry consultation highlighted that a potential scenario under which imbalance prices could be manipulated had been highlighted in the P194 regulatory impact assessment. The Modification Group considered this scenario and concluded that it highlighted the potential for participants to manipulate a position of market power (rather than being an issue directly related to the pricing mechanism). The Group felt that if a participant is in a position of market power (for example being the last available generation unit); they have the potential to manipulate prices. However, the Group considered that the situation of a participant manipulating a position of market power would be addressed by the regulator. Therefore, consideration of this example did not change the Modification Group's view that, under a PAR value of 100 MWh, Parties would not be consistently able to manipulate Energy Imbalance Prices and even in the unlikely case manipulation did occur it would probably be detected by the industry and/or the Authority.

Overall the Group concluded that consideration of the number of actions setting Energy Imbalance Prices did not provide a justification for a move to a PAR value of 500 MWh.

### **3.3.2 Influence of System Actions**

The Modification Group acknowledged that the current tagging mechanisms used to remove actions not reflective of the cost of energy balancing contain imperfections, such that some actions not reflective of the cost of energy balancing can influence Energy Imbalance Prices. It was considered that these imperfections are illustrated by the influence of negative priced Bids accepted from BM Units in the north of the country and high priced Offers from BM Units in the south of the country on Energy Imbalance Prices.

For otherwise identical conditions, an increase in the PAR value from 100 to 500 MWh is likely to have the following effect:

- The proportion of Settlement Periods where Imbalance Prices are affected by System actions would increase or be unaffected. This would occur as System actions not included in the calculation of the main Energy Imbalance Price under a PAR value of 100 MWh may be included under a PAR value of 500 MWh, whereas any System actions included under a PAR value of 100 MWh would also be included under a PAR value of 500 MWh; and
- In those Settlement Periods where Imbalance Prices are affected by System actions, the impact of those actions would be less. Since under a PAR value of 500 MWh a larger sample of actions would be used in the calculation of the main Energy Imbalance Price, the average value is less likely to be influenced by System actions.

The majority of Modification Group members considered that, since System actions are generally more expensive, an increase in the PAR value to 500 MWh would decrease the impact of System actions on Imbalance Prices. Others suggested that the overall impact of P205 would be to increase the impact of System actions by including actions that would not be incorporated under a PAR value of 100 MWh.

It was also recognised that the issue had been addressed by the Authority in the P194 decision letter which expressed the view that there is a risk a PAR value of 100 MWh would exacerbate the distortion created by System trades in some Settlement Periods. However, the Group noted that it was considered by the Authority that the overall impact on prices would be small.

Overall the Modification Group concluded that a move to a PAR value of 500 MWh was more likely to reduce the impact of actions not reflective of the cost of energy balancing on Energy Imbalance Prices. However, it was suggested by some Modification Group members that any failure of the current tagging mechanisms should be addressed by revision of the tagging rules rather than via a change to the PAR value.

### **3.4 Impact on Energy Imbalance Prices**

The Modification Group considered analysis illustrating the difference between Energy Imbalance Prices calculated under a volume weighted average mechanism; PAR of 100 MWh and 500 MWh for the period 2004 to 2006 (see Appendix 4).

The Modification Group noted that a PAR value of 500 MWh gave Energy Imbalance Prices in the majority of Settlement Periods which were closely aligned with the pre-P194 volume weighted average mechanism. The Group noted that there was limited difference between Energy Imbalance Prices with a PAR value of 500 MWh and the pre-P194 volume weighed average mechanism over peak demand periods. The Group also noted that during the period of particular System stress on the 17 and 18 July 2006 the PAR 500 value gave a significant increase in imbalance prices relative to the pre-P194 volume weighed average mechanism.

Some members of the Group felt that the data illustrated that a PAR value of 500 MWh would give Energy Imbalance Prices which may not be closely aligned with the price of the most expensive balancing action remaining following application of the existing tagging mechanisms. Although prices may rise to appropriate levels at times of System stress, it was considered important to have Energy Imbalance Prices which appropriately reflect the cost of balancing the System at all times.

Other members of the Group felt that the data illustrated that a PAR value of 500 MWh would ensure that strong pricing signals occurred when they were required (i.e. at times of System stress), whilst not increasing the volatility of Energy Imbalance Prices when not necessary or significantly affecting average prices relative to pre-P194 volume weighed average mechanism.

### **Views of Respondents to Urgent Modification Consultation**

| <b>Consultation question</b>  | <b>Yes</b> | <b>No</b> |
|---|------------|-----------|
| Do you have any comments on the imbalance pricing data provided for 2004 to 2006? | <b>8</b>   | <b>9</b>  |

Those respondents commenting on the imbalance pricing data raised the following points:

- A PAR value of 500 MWh gives sufficient signals at times of System stress whilst providing a less volatile and risky price at other times. A PAR value of 100 MWh leads to prices which are unnecessarily high when the System is well supplied;
- A PAR value of 500 MWh reduces the potential for a single corporate group to set the price;
- The 05/06 data shows that a PAR value of 100 MWh leads to System actions polluting SSP;
- Prices under P205 provide sufficient incentive to balance, for example a price of £1,500 / MWh provides no more incentive than one of £1,000 / MWh;
- Imbalance prices were more volatile for 05/06 than 04/05;
- The increase in imbalance prices from 04/5 to 05/6 is aligned with the increase in wholesale energy/fuel prices. The impact of a PAR value of 100 MWh in each period is broadly equivalent;
- A PAR value of 100 MWh only reduces SSP by 3.5% on average. The decrease in SSP under PAR 100 is minor compared to increases in wholesale prices. Hence, generation which is contractually linked to SSP should not be materially impacted by a PAR value of 100 MWh;
- Average imbalance prices under P194 are similar to those under both the P205 and the pre-P194 volume weighted average mechanism;
- P205 broadly equates to undoing P194, since PAR 500 is 90-100% of the NIV in over 80% of SPs. P205 would dilute imbalance prices away from efficient levels at all times; and

One respondent suggested that the Modification Group should look at periods of low margin rather than periods of peak demand and provided a number of example days which were considered by the Modification Group (see Annex 4).

### **Modification Group Conclusion**

Some Modification Group members concluded that the imbalance pricing data illustrated that P205 would maintain a sufficient incentive to balance at times of system stress, whilst reducing volatility at other times. It was also considered that imbalance prices for 05/06 were more volatile than those for 04/05, providing justification for reconsidering the PAR volume. It was suggested that the influence of System actions on SSP could be observed to a greater extent under a PAR value of 100 MWh.

Other Modification Group members concluded that the imbalance pricing data illustrated that P205 would reduce that extent to which imbalance prices reflect the marginal cost of balancing energy. It was suggested that any increased volatility between the 04/05 and 05/06 data related to increased volatility in wholesale prices and that the impact of a PAR 100 was consistent across both periods. It was noted that in the majority of Settlement Periods a PAR value of 500 MWh would be equivalent to the pre-P194 baseline (since 500 MWh was between 90-100% of NIV in over 80% of Settlement Periods).

## **3.5 Cost Reflectivity of Energy Imbalance Prices**

The Modification Group considered how P205 would affect the cost reflectivity of Energy Imbalance Prices.

It is generally accepted that the overall objective of any cash out regime is that the cash out prices should be the best proxy of the marginal cost of energy required, in an efficient market, for the relevant System Operator (SO) to bring the System into balance within each balancing period.

The majority of Modification Group members believe that P205 would reduce the extent to which Energy Imbalance Prices reflect the marginal cost and value of energy balancing and furthermore would send price signals that were less reflective of the state of the System. Hence, P205 would provide Energy Imbalance

Prices that were less reflective of the cost of energy balancing and would less effectively target the costs of addressing the energy imbalance at those in imbalance.

The Modification Group agreed that P205 would reduce the influence of System balancing actions of Energy Imbalance Prices. Some Modification Group members were of the view the influence of System actions under a PAR value of 100 MWh was such that, overall, P205 would provide Energy Imbalance Prices that would better reflect the cost of energy balancing and would better target the costs of addressing the energy imbalance at those in imbalance.

### **3.6 Incentives to Balance**

The Modification Group considered the impact of P205 on the incentives for Parties to balance.

The Modification Group considered that the fundamental principle of the Balancing Mechanism is that the costs of balancing should be reflected on participants with imbalance positions. This aims to ensure that imbalance prices reflect the costs of rectifying imbalance, such that market participants are able to respond to the economic signals they provide. Providing the cost of imbalance is appropriately reflected onto those Parties with imbalance positions, Parties will adopt whatever trading strategy is financially most efficient for them. The most efficient ratio of Parties balancing their own position and the Transmission Company resolving any residual imbalance will follow.

The majority of Modification Group members considered that P205 would less appropriately reflect the cost of balancing the System and as a consequence provide a less appropriate incentive for participants to balance their positions.

The minority of Modification Group members considered that a PAR value of 500 MWh would provide sufficient incentive for Parties to avoid imbalance exposure. Hence, to the extent that it is possible to do so, participants would continue to contract ahead of Gate Closure to avoid imbalance exposure. As such, P205 would not reduce the incentive to balance.

It was suggested that P205 would reduce the volatility of System Buy Price (SBP), reducing the extent to which Parties take long positions and thereby providing an increased incentive for participants to balance their positions. A number of Modification Group members did not support the view that P205 would reduce the extent to which Parties adopt long positions. For otherwise identical conditions, when the market is long a PAR value of 500 MWh will increase SSP relative to a PAR value of 100 MWh. Therefore, P205 will increase the payment a Party receives if it is long when the market is long, encouraging participants to take long positions.

### **3.7 Impact on Liquidity**

Some Modification Group members expressed the view that P205 will reduce liquidity in the market as it would reduce the extent Parties trade in order to achieve balanced positions. It was also suggested that P205 would weaken signals to the forward markets and, over the long term, reduce the development of new plant where necessary. Other members of the Group were of the opinion that P205 would increase the number of participants in the market and therefore lead to increased levels of liquidity.

### **3.8 Implications for Security of Supply**

Some Modification Group members expressed the view that P205 will adversely affect the long term security of supply by reducing the extent to which imbalance reflect the marginal cost of balancing energy. This view was supported by the Transmission Company in its impact assessment (see Appendix 3) as follows:

Under P205 the incentive for participants to cover their contractual positions will be weakened compared to the current baseline. This will lead to greater uncertainty of sufficient capacity being available. This will increase the risk to security of supply. The diminished incentive to balance will reduce liquidity in the forward markets and obscure the ability of prices in the market to accurately reflect the marginal cost of energy.

This, in turn, will diminish the ability of the forward market to signal emerging supply shortages. The forward price curve is a significant factor in the economic consideration in the investment in new capacity. As such, the more accurately it reflects the likely forward cost of energy the more efficiently the market is able to respond to future demand/supply positions. Adequate capacity to meet future demand requirements is the core requirement of meeting long term security of supply. P205 will dilute this signal to the market and the incentive to provide adequate capacity will be impacted accordingly.

One member of the Group noted that new capacity is planned and therefore it is questionable whether the current signal provided by forward prices is inadequate. It was also suggested that security of Supply is served by encouraging competition and P205 will promote competition and therefore benefit security of Supply.

### **3.9 Impact on the Residual Cashflow Reallocation Cashflow**

For otherwise identical conditions, P205 will decrease (or have no effect on) the cost of imbalance compared to the current baseline. It in turn follows that, for otherwise identical conditions, P205 will decrease the Residual Cashflow Reallocation Cashflow (RCRC).

Under P194, P136 and P137 arguments had been made that the increase in the RCRC (relative to the Pre-P194 average pricing mechanism) under a fully marginal imbalance price or a PAR value of 100 MWh would distort the incentive to balance and have a disproportionate effect on certain categories of Parties. The Modification Group therefore considered the arguments identified under P194, P136 and P137 and whether the impact on RCRC was a significant factor in the assessment of P205.

#### **3.9.1 Arguments Under Previous Proposals**

During the progression of previous proposals, it was suggested that Parties may take a view that the risk of exposure to Energy Imbalance Prices can be offset by a return via RCRC. The assumption is that where there is a high price (and Parties are, in general, short) the residual cashflow will be high. This could mean that Parties may recover a 'lump' of the exposure to imbalance paid at SBP back from RCRC, reducing the overall cost of imbalance, and mitigating the effect of the price signal from the Energy Imbalance Price. Furthermore, it was suggested that the expectation of receipt of RCRC will influence, as a second order effect, forward contracting behaviour for some Parties.

It was also suggested that any increase in the RCRC may potentially distort competition as, due to the asymmetry of the RCRC, some types of Party may consistently receive proportionally more of the RCRC than others. For example a single site generator that fails will be exposed to SBP but will not receive any RCRC to offset their exposure to imbalance (since their metered volume will be zero). In contrast to this, a Supplier that does not contract for its energy use is exposed to SBP but has metered volumes and therefore receives a proportion of the RCRC.

However, the counter view expressed was that RCRC could be considered to be a side effect of the Settlement calculations. Furthermore, one which is unpredictable as the relative sizes of the SSP and SBP could lead to the RCRC being a debit, rather than a credit, especially where the system is persistently long. Therefore, the inability to predict the RCRC may mean that it has little to no influence on Parties incentives, and will not cause Parties to change their behaviour. All Parties would be under an increased incentive to avoid exposure to the main Energy Imbalance Price via increasing the proportion of their energy input or output covered by contract. Any increased incentive to balance provided by an increase in Energy Imbalance Prices is not removed by the RCRC. Therefore, RCRC does not distort the incentive to balance provided by Energy Imbalance Prices.

Under P194 the Modification Group concluded that, since the RCRC is allocated in proportion to metered volumes, any change in the RCRC would be distributed to Parties in proportion to their metered volumes. Therefore, the RCRC mechanism does not favour larger Parties. However, the Group recognised that there was a valid argument that the current mechanism could work to the disadvantage of generation in

comparison to Supply. Where a generator is tripped of the System it will pay Imbalance Charges for its contracted output but will have no Metered Volume against which to receive a proportion of the RCRC. Supply side metered volumes are independent of imbalance. Hence it could be argued that the current RCRC reallocation mechanism disadvantages generation.

Overall the P194 Modification Group had concluded that any disproportionate effects associated with the RCRC re-allocation mechanism were a feature of the existing baseline. However, it was recognised that, were it considered that a defect existed in this area it could be considered that any change which increased the RCRC would exacerbate this issue. It was noted that P194 would only increase the RCRC if Parties did not respond to the increased incentive to balance provided (i.e. the levels of imbalance did not change as a consequence of P194).

### **3.9.2 P205 Consultation**

One respondent to the industry consultation expressed the view that P205 would better facilitate the Applicable BSC Objectives as it would improve efficiency by reducing the unfair reallocation of the residual cashflow (by decreasing the size of that cashflow). Under an average imbalance price, the net imbalance payments made by Parties could be expected to broadly align with the net balancing cost incurred. Hence, the RCRC a Party receives will roughly cancel out its BSUoS payments. The net effect would be that Parties with imbalance positions pay for the balancing actions taken on their behalf. However, under a marginal imbalance price, the net imbalance payments made by Parties will typically be greater than the total cost of balancing. Hence, the RCRC a Party receives can be expected to be greater than its BSUoS payments. In this respect a marginal imbalance price could be considered to over recover balancing costs and create a net cashflow from Parties with imbalance positions to all Parties via the RCRC. P205 would reduce this effect.

### **3.9.3 Modification Group Conclusion**

The Group agreed with the findings of the P194 Modification Group and concluded that the impact on the RCRC was not a significant factor in the assessment of P205. Since the RCRC is allocated in proportion to metered volumes, any change in the RCRC would be redistributed to Parties in proportion to their metered volumes and the RCRC mechanism does not favour larger Parties. The Group recognised that there was a valid argument that the current mechanism could work to the disadvantage of generation in comparison to Supply and to the extent this exists it would be reduced under P205. However, overall the Modification Group concluded that any disproportionate effects associated with the RCRC are a feature of the mechanism and concluded that the impact on the RCRC was not a significant factor in the assessment of P205. If participants are concerned with how the RCRC mechanism works they should raise Modification Proposals to amend it.

## **3.10 Impact on Credit Cover**

Under the current baseline, Parties are required to provide Credit Cover against an estimate of their Trading Charge liability to avoid being in Credit Default. Under P205 Parties would continue to be required to post Credit Cover against an estimate of their Trading Charge liability. Under P205 the estimated liabilities of any individual Party may be more or less than they would be under the current baseline. However, assuming the Energy Imbalance Prices are appropriate, the liabilities being estimated are appropriate and hence the level of Credit Cover required would be no more or less appropriate than under the current baseline. Therefore, the Modification Group concluded that the impact of P205 on Credit Cover was not a significant factor in the assessment of P205.

### 3.11 Potential Alternative Modifications

The Modification Group considered elements of a possible Alternative Modification including:

- **Panel review of the PAR value:** Including the ability for the Panel to review the PAR value in the future; and
- **Alternative PAR Values:** A revision of the PAR value to a figure other than 500 MWh.

There was a mix of views within the Modification Group as to whether or not it would be better for the PAR value to be subject to regular review and approval by the BSC Panel (rather than included in the Code such that it can only be amended via a Modification Proposal, as is the case under the baseline). Some members of the Group believed this approach would be more appropriate, as it would provide the BSC Panel with the ability to amend the value if necessary and ensure the value would be subject to regular review. Other members of the Modification Group believed that the impact of changes to the value could be significant, both within the Code and the wider context of the electricity market. Therefore, changes to the PAR Volume should be subject to the transparency provided by the Modification Procedures and associated Authority approval. It was recognised that the level of assessment and consultation that would be required under both approaches would be the same due to the significant consequences of any change. The Group also noted that during the progression of P194 the Panel had provided the Modification Group with advice that the PAR volume should only be subject to change via a Modification Proposal. The Proposer clarified that consideration had been given to raising a proposal to allow the Panel to set PAR, but decided against it in order to keep the modification simple given its urgent nature. The Modification Group agreed unanimously that no Alternative Modification should be developed whereby the PAR volume was subject to review and approval by the BSC Panel.

As outlined in Section 3.1 of this document the Group concluded that it would be difficult to provide a justification for any alternative value of PAR. As such, the Group agreed that no Alternative Modification whereby the PAR Volume had a value other than 500 MWh should be developed. However, it was recognised that participants could provide views on suitable alternative values and associated justification via the consultation process.

#### **Views of Respondents to Urgent Modification Consultation**

| <b>Consultation question</b>   | <b>Yes</b> | <b>No</b> |
|--|------------|-----------|
| Do you believe there are any alternative solutions that the Modification Group has not identified and that should be considered? | <b>1</b>   | <b>16</b> |

There was limited support for development of an Alternative Modification P205 from respondents to the industry consultation. One respondent felt it would be appropriate for the Panel to have the ability to review the PAR value but did not support an Alternative Modification. Another respondent suggested that a PAR value somewhere between 100 and 500 MWh may be appropriate if there was a significant impact due to inaccuracies in the determination of which actions should set Imbalance Prices.

#### **Modification Group Conclusion**

The Modification Group agreed that no Alternative Modification should be developed. The reasons for not progressing alternative PAR values are set out in section 3.1.4. In relation of the inclusion of a Panel review of the PAR value, the Group agreed that changes to the PAR value would have significant commercial implications to participants and should be governed by the Modification Procedures. The Group also noted that the Panel had directed the P194 Modification Group not to include a Panel review under the P194 Modification Procedures.



### 3.12 Other Areas Raised via Consultation

The Modification Group considered a number of other points raised by respondents to the industry consultation as set out in this section.

#### 3.12.1 Timing of Information

One respondent expressed the view that imbalance pricing information is not available until after the trading period, so it is not possible for participants to respond even if the signal is correct. The Modification Group noted that participants' behaviour is determined by an expectation of imbalance prices. Therefore, the majority of the Modification Group did not consider the timescales in which imbalance prices are available to be a significant factor in the assessment of P205.

#### 3.12.2 Appropriateness of P205

Two respondents commented on the appropriateness of revising an Approved Modification prior to its implementation date. The Modification Group noted that the issues raised under P205 were the same as those under P194. However, the Modification Group concluded that there is no restriction on a Modification Proposal being raised to amend an approved change prior to its Implementation Date and that it is appropriate for Parties to raise issues where they believe an issue or defect warrants consideration.

#### 3.12.3 Areas Outside the BSC

The following areas were raised by respondents to industry consultation, recognising that they fall outside the Applicable BSC Objectives but on the basis they should be taken into account by the Authority in the decision making process in relation to its wider statutory duties:

- The increased risk faced by Suppliers under a PAR value of 100 MWh will result in higher costs to consumers; and
- A PAR value of 100 MWh will disadvantage renewable and other single or inflexible generators. P205 will benefit small scale renewable, Combined Heat and Power (CHP) and distributed generation which play an important role in reducing the impact of climate change.

The Modification Group noted that these areas may have been considered by the Authority in making its decision on P194 and that the P205 decision could be expected to consider the same areas.

## 4 IMPLEMENTATION APPROACH AND COSTS

The Modification Group noted that the PAR value would be parameterised within the central systems as part of the P194 solution. As such, the change to the PAR value proposed under P205 could be implemented at zero cost and within 5WDs of an Authority decision on or following the P194 implementation date.

| PROPOSED MODIFICATION IMPLEMENTATION COSTS <sup>4</sup> |                  |                  |           |
|---|------------------|------------------|-----------|
|   | Stand Alone Cost | Incremental Cost | Tolerance |
| <b>Total Implementation Cost</b>                        | <b>0</b>         | <b>0</b>         | <b>0</b>  |

<sup>4</sup> An explanation of the cost terms used in this section 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](http://www.elexon.co.uk/documents/Change_and_Implementation/Modifications_Process_-_Related_Documents/Clarification_of_Costs_in_Modification_Procedure_Reports.pdf)

## PROPOSED MODIFICATION ONGOING SUPPORT AND MAINTENANCE COSTS

|                                   | Stand Alone Cost | Incremental Cost | Tolerance |
|-----------------------------------|------------------|------------------|-----------|
| Service Provider Operation Cost   | 0                | 0                | 0         |
| Service Provider Maintenance Cost | 0                | 0                | 0         |
| ELEXON Operational Cost           | 0                | 0                | 0         |

### a) BSC Agent Impact

Amended PAR parameter in SAA and BMRA.

### b) BSC Party and Party Agent Impact

No impact on participant systems and processes.

### c) Transmission Company Impact

No impact on Transmission Company system and processes.

### d) BSCCo Impact

Communicate revised PAR value to BSC Agents and publish on BSC Website. Update PAR value in Trading Operations Monitoring and Analysis System (TOMAS).

## 5 MODIFICATION GROUP'S RECOMMENDATIONS TO THE PANEL

This section summarises the discussion of issues and recommendations of the Modification Group to the BSC Panel.

### 5.1 Assessment of Proposed Modification Against Applicable BSC Objectives

#### 5.1.1 Views of Respondents to Assessment Procedure Consultation

This section outlines the views of consultation respondents and the Modification Group regarding the merits of Proposed Modification P205 when assessed against the Applicable BSC Objectives. Responses are provided in full in Appendix 2.

| Consultation question   | Yes       | No       |
|---|-----------|----------|
| Do you believe Proposed Modification <b>P205</b> better facilitates the achievement of the Applicable BSC Objectives? | <b>12</b> | <b>5</b> |

#### **Arguments in support of Proposed Modification P205:**

- Limited liquidity and lack of access to balancing tools mean a PAR value of 100 MWh has a disproportionate impact on small Parties;
- Will encourage competition as new entrants will not be deterred by the imbalance risk created by a PAR value of 100 MWh;
- Pre-P194 mechanism provides sufficient incentives to balance and Parties already balance as much as possible. P205 would reduce the penalty on those unable to balance created by a PAR value of 100 MWh;
- Would retain a stronger signal to balance at times of System stress without creating unmanageable risk;
- Will reduce the extent to which Parties take long positions, thereby reducing the overall level of balancing required;
- Would reduce the impact of System actions on imbalance prices, more appropriately targeting the costs of balancing the system;

- Less penal imbalance prices would encourage more generation to be made available at times of System stress;
- Reduces the impact of the unfair re-allocation of RCRC; and
- Would reduce the potential for manipulation.

#### **Arguments not in support of Proposed Modification P205:**

- Imbalance prices should reflect the marginal cost of balancing energy at all times. A PAR value of 100 MWh aligns imbalance prices with the marginal cost of generation, P205 moves away from this;
- P205 gives the same prices as the pre-194 average mechanism in 80% of Settlement Periods, whilst the forward market clears around the marginal cost of energy. Due to the range of Offer prices accepted by the System Operator, average imbalance prices will always be less than the marginal cost in the forwards market. If the cost of purchasing the marginal unit in the forwards market is less than the associated imbalance price, participants will chose to take the SBP rather than purchasing the energy contractually. P205 re-introduces an inappropriate cap on forward energy prices equivalent to the imbalance price under an average mechanism. This will not provide an appropriate incentive to balance and will not create the correct signals for investment;
- The reduction of the incentive to balance will increase the costs of balancing the System;
- The proposal would not appropriately reflect costs onto Parties with imbalance positions, this creates a cross subsidy to participants with imbalance positions;
- P205 will reduce market liquidity, as it will reduce the extent participants are encouraged to trade to avoid imbalance exposure;
- If imbalance prices do not reflect the marginal cost of energy, they will not provide a signal of the value of electricity to the forwards market. This will not promote new plant build as required or promote competition and will adversely impact security of supply;
- Current tagging rules are the best effort to remove System actions, if necessary changes to the tagging mechanisms should be progressed separately;
- P205 makes no difference relative to pre-P194 baseline;
- P205 will dilute the benefits perceived when P194 was approved; and
- No convincing case has been made to show that the conclusions under P194 are not valid.

#### **5.1.2 Modification Group's Assessment**

The Modification Group was split as to whether the Proposed Modification would better facilitate achievement of the Applicable BSC Objectives when compared to the current Code baseline, for the following reasons:

#### **Applicable BSC Objective B – 'the efficient, economic and co-ordinated operation by the Transmission Company of the Transmission System'**

##### **Arguments in support of Proposed Modification P205:**

P205 would retain sufficient incentives for Parties to balance their position where it is possible for them to do so. In particular, P205 maintains a strong imbalance signal aligned with the marginal cost of energy balancing at times of System stress. Hence, to the extent that it is possible to do so, participants will continue to contract ahead of Gate Closure to avoid imbalance exposure. As such, P205 will not increase the balancing requirements of the Transmission Company or adversely impact on the efficient operation of the Transmission System.

P205 would reduce the incentive for Parties to take a long(er) position to avoid System Buy Price, thereby reducing the overall level of balancing required by the Transmission Company, benefiting the efficient operation of the Transmission System.

Arguments not in support of Proposed Modification P205:

P205 would reduce the incentive to balance. Thereby, P205 would reduce the extent to which Parties trade ahead of Gate Closure, increasing the volume of balancing actions required by the Transmission Company and adversely affecting security of supply. P205 will not reduce the extent participants adopt long positions to avoid SBP. When the market is long a PAR value of 500 MWh will increase SSP relative to a PAR value of 100 MWh. Therefore, P205 will increase the payment a Party receives if it is long when the market is long, encouraging participants to take long positions. Hence, P205 would adversely affect the efficient, economic and co-ordinated operation by the Transmission Company of the Transmission System.

P205 will not ensure that Energy Imbalance Prices rise to appropriate levels and will not provide the correct signals into the forward markets and help promote new plant build. Over the long term this may adversely affect security of supply. Hence, P205 will adversely affect the efficient, economic and co-ordinated operation by the Transmission Company of the Transmission System over the long term.

**Applicable BSC Objective C – ‘promoting effective competition in the generation and supply of electricity, and (so far as consistent therewith) promoting such competition in the sale and purchase of electricity’**

Arguments in support of Proposed Modification P205:

Some Parties can not balance their positions any more accurately than they do at the present time and will not be able to respond to the pricing signals provided by a PAR value of 100 MWh. In particular, small Parties are detrimentally affected, since there may not be products on the market which allow them to trade in small enough volumes to avoid imbalance. In addition, the majority of demand is unlikely to respond to the signals provided by a PAR value of 100 MWh. The proposed increase in the PAR volume would avoid penalising Parties which cannot respond to imbalance prices. This would help to reduce a barrier to market entry and help to promote effective competition in the generation and supply of electricity, and (so far as consistent therewith) promoting such competition in the sale and purchase of electricity competition.

P205 would decrease the impact of imperfections in the tagging mechanism on imbalance prices; therefore Parties would be exposed to Energy Imbalance Prices which are more reflective of the true cost of energy balancing the System. This would more appropriately target the costs of balancing the System and would have a positive impact on promotion of effective competition in the generation and supply of electricity, and (so far as consistent therewith) promoting such competition in the sale and purchase of electricity.

Arguments not in support of Proposed Modification P205:

By reducing the extent to which imbalance prices appropriately reflect the costs incurred to balance the System the proposal seeks to provide a financial benefit to Parties with imbalance positions at the expense of others. Effective competition is only achieved when participants are subject to appropriate costs and the imbalance prices provide appropriate signals to the forwards market, such that participants enter the market when it is economic to do so. Whilst introducing changes to protect small Parties may encourage new entrants to the market, this would not promote efficient competition since their entry would effectively be subsidised by other participants.

P205 will dampen the signals provided by Energy Imbalance Prices to the forward markets by reducing the incentive for Parties to trade ahead of Gate Closure. This will reduce effective competition in the generation and supply of electricity, and (so far as is consistent with) also reduce the promotion of competition in the sale and purchase of electricity.

Reducing the extent to which Energy Imbalance Prices rise to appropriate levels will provide reduced signals into the forward markets and, over the long term, may not promote new plant build where necessary, adversely affecting the promotion of effective competition in the generation and supply of electricity, and (so far as consistent therewith) promoting such competition in the sale and purchase of electricity.

## 5.2 Implementation Date

The Modification Group agreed the following recommended implementation approach for P205:

- An Implementation Date for Proposed Modification P205 of 2 November 2006 if an Authority decision is received on or before 26 October 2006, or 5 Working Days following an Authority decision if received after 26 October 2006.

If approved, P205 would apply to Settlement Runs and Volume Allocation Runs carried out in relation to Settlement Days on or after the Implementation Date. Settlement Runs and Volume Allocation Runs carried out in relation to Settlement Days before the Implementation Date would not be affected by P205.

## 5.3 Legal Text

Initial draft legal text was issued as part of the Urgent Modification Consultation and no comments were received. The Modification Group reviewed the legal text and agreed that it delivers the solution developed by the Group.

# 6 RATIONALE FOR PANEL'S RECOMMENDATIONS TO THE AUTHORITY

## 6.1 Panel's Consideration of the draft Urgent Modification Report

The Panel considered the P205 draft Urgent Modification Report at its meeting on 14 September 2006. This section summarises the Panel's discussions in formulating its final recommendations.

### 6.1.1 PAR Volume

The Panel noted that there would always be a level of subjectivity in determining the appropriateness of any PAR value. Providing appropriate incentives to balance, reducing the impact of System actions and the potential for manipulation are all amongst the factors that need to be considered.

Several Panel Members expressed the view that the data analysis (Appendix 4) illustrated that P205 would ensure strong pricing signals occurred when they were required (i.e. at times of System stress), whilst not increasing the volatility of Energy Imbalance Prices when not necessary or significantly affecting average prices relative to the pre-P194 volume weighed average mechanism. The intent of P194 was to provide increased signals at times of System stress and that this would be sufficiently maintained under P205, whilst at the same time alleviating some of the concerns raised by the industry in relation to P194.

Several panel members considered that the influence of some System actions under a PAR value of 100 MWh could be observed in the data analysis and that this provided support for the proposed increase in the PAR value. This issue of System trades impacting imbalance prices had become more significant post the introduction of the British Electricity Trading and Transmission Arrangements (BETTA).

One Panel Member noted that, historically, Approved Modifications that reduced the volatility and asymmetry of imbalance prices (in particular P78) appeared to have resulted in a more balanced market. This suggests that higher prices may not necessarily lead to a more balanced market.

The Transmission Company representative expressed the view that the P205 would greatly reduce the effect of P194 and that imbalance prices should consistently reflect the marginal price of balancing energy. The perceived benefits of P194 would be lost by increasing the PAR value from 100 to 500 MWh.

One Panel member expressed the view that it is to be expected that those that did not support P194 will support P205. However, if the principle of marginal pricing were accepted, as it had been under P194, the only basis for a change to the PAR value should be the potential for manipulation or the impact of System actions. This Panel Member was of the view the change proposed by P205 was not justified on this basis.

### 6.1.2 Consultation Responses

The Panel noted that the number of responses indicated that the issues raised by P205 are significant for participants. The Panel welcomed the range and detail provided in the responses, in particular the extensive analysis provided by one respondent. Some Panel members considered that if such analysis had been made available under P194 it may have led to different conclusions. One Panel Member noted that the split in consultation responses was not the small/large Party differentiation often observed. Another Panel member noted that the responses received were consistent with those under P194.

### 6.1.3 Timing

It was noted by the Transmission Company representative that the suggestion of marginal pricing had been raised due to concerns that imbalance prices were not rising to appropriate levels, an extensive process had been conducted by the industry and the Authority prior to the P194 decision. Whilst P205 is a valid Modification Proposal which must be given consideration, it did not seem appropriate that the issue had been re-opened before the effects of P194 have been observed. In response, one Panel Member noted that if a Party did not support P194, given the outlook ahead of winter, it was entirely appropriate for them to seek to address the issues raised by its approval.

One Panel member indicated support for P194 and noted that the Authority intended to carry out a review 6 months after implementation. This Panel member expressed the view it was more appropriate to review the proposal once the effects were known.

One Panel member expressed the view that, given the outlook for this winter, a PAR value of 100 MWh was more likely to lead to significant problems than one of 500 MWh. Therefore, P205 would be less risky than remaining with the prevailing 100 MWh value.

### 6.1.4 Other Comments

One Panel member noted that when reviewing parameters it is usual to consider a range of values in order to understand the level at which different effects can be observed. In this case, in line with the Modification Proposal, consideration was restricted to a comparison of two values. However, it was noted that a range of values had been considered under P194.

### 6.1.5 Applicable BSC Objectives

The majority view of Panel members was that the Proposed Modification would better facilitate achievement of the Applicable BSC Objectives when compared to the current Code baseline, for the following reasons:

#### **Applicable BSC Objective a)**

The Panel agreed that the Proposed Modification would have no impact on Applicable BSC Objective (a).

#### **Applicable BSC Objective b)**

The Panel noted the arguments identified by the Modification Group in relation to Applicable BSC Objective b).

The majority of Panel Members supported the argument that P205 would retain sufficient incentives for Parties to balance their position where it is possible for them to do so. In particular, P205 would maintain a strong imbalance signal aligned with the marginal cost of energy balancing at times of System stress. To the extent that it is possible to do so, participants will continue to contract ahead of Gate Closure to avoid imbalance exposure. As such, P205 will not increase the balancing requirements of the Transmission Company or adversely impact operation of the Transmission System.

The majority of Panel members were of the view P205 would reduce the incentive for Parties to take a long(er) position to avoid System Buy Price, thereby reducing the overall level of balancing required by the Transmission Company, benefiting operation of the Transmission System.

One Panel Member supported the argument that imbalance prices should be aligned with the marginal cost of energy balancing. P205 would move away from the marginal signal, reducing the incentive to balance and increasing the cost of balancing. Long term signals provided to the forward market would also be less appropriate and may limit the development of new plant when required, adversely affecting long term security of supply. Hence, P205 would adversely affect operation of the Transmission System.

#### **Applicable BSC Objective c)**

The Panel noted the arguments identified by the Modification Group in relation to Applicable BSC Objective c).

The majority of Panel members agreed with the view that some Parties can not balance their positions any more accurately than they do at the present time and will not be able to respond to the pricing signals provided by a PAR value of 100 MWh. The proposed increase in the PAR volume would avoid penalising Parties which cannot respond to imbalance prices, this would help to reduce a barrier to market entry and promote competition.

The majority of Panel members supported the argument that P205 would decrease the impact of imperfections in the tagging mechanism on imbalance prices; therefore Parties would be exposed to Energy Imbalance Prices which are more reflective of the true cost of energy balancing the System. This would more appropriately target the costs of balancing the System and would have a positive impact on competition.

One Panel member supported the arguments that effective competition is only achieved when participants are subject to appropriate costs and that P205 would reduce the extent that this occurs. Moving away from the marginal cost of energy would reduce the extent participants are encouraged to trade out imbalance positions and therefore reduce liquidity and adversely impact competition. Reducing the extent to which Energy Imbalance Prices rise to appropriate levels would provide reduced signals into the forward markets and, over the long term, may not promote new plant build where necessary, adversely affecting competition.

#### **Applicable BSC Objective d)**

The Panel agreed that the Proposed Modification would have no impact on Applicable BSC Objective d).

#### **Recommendation to the Authority**

The Panel agreed a majority recommendation to the Authority that:

- **Proposed Modification P205 should be made**

#### **6.1.6 Implementation Date**

The Panel unanimously agreed the Implementation Date recommended by the Modification Group.

#### **6.1.7 Legal Text**

The Panel unanimously agreed the legal text for the Proposed Modification.

## 7 DOCUMENT CONTROL

### 7.1 Authorities

| Version | Date     | Author      | Reviewer           | Reason for Review |
|---------|----------|-------------|--------------------|-------------------|
| 0.1     | 02/08/06 | Tom Bowcutt | Modification Group | Technical Review  |
|         |          |             | Sarah Jones        | Technical Review  |
| 0.2     | 07/09/06 | Tom Bowcutt | Colin Berry        | Quality Review    |
| 0.3     | 08/09/06 | Tom Bowcutt | Panel              | For Decision      |
| 1.0     | 15/09/06 | BSC Panel   | Ofgem              | For Decision      |

### 7.2 References

BSC modification documentation is available via the BSC (ELEXON) Website:

<http://www.elexon.co.uk/changeimplementation/ModificationProcess/modificationdocumentation/default.aspx>

### 7.3 Intellectual Property Rights, Copyright and Disclaimer

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## APPENDIX 1: LEGAL TEXT

Legal text for the Proposed Modification is attached as a separate document, Attachment 1.

## APPENDIX 2: URGENT MODIFICATION CONSULTATION RESPONSES

Full copies of the Urgent Modification consultation responses are attached as a separate document, Attachment 2.

## APPENDIX 3: IMPACT ASSESSMENT RESPONSES

Transmission Company impact assessment and analysis is attached as a separate document, Attachment 3.

### Results of Impact Assessment

#### a) Impact on BSC Systems and Processes

| System / Process | Impact of Proposed/Alternative Modification |
|------------------|---|
| SAA              | PAR parameter amended from 100 to 500 MWh.  |
| BMRA             | PAR parameter amended from 100 to 500 MWh.  |

#### b) Impact on BSCCo

| Area of Business | Impact of Proposed/Alternative Modification                                  |
|------------------|--|
| Operational      | Revised PAR value notified to SAA and BMRA and published on the BSC Website. |

#### c) Impact on Code

| Code Section                            | Impact of Proposed/Alternative Modification |
|---|---|
| Section T: Settlement & Trading Charges | PAR value amended from 100 to 500 MWh.      |

#### d) Impact on Code Subsidiary Documents

No impact identified.

#### e) Impact on Other Configurable Items

The revised PAR value will be published on the BSC Website. The PAR parameter will be amended in the TOMAS.

## APPENDIX 4: IMBALANCE PRICING DATA

Imbalance Price data for the period 2004 to 2006 under a volume weighted average, PAR100 and PAR500 baseline is available to download from the ELEXON Website at:

<http://www.elexon.co.uk/changeimplementation/ModificationProcess/modificationdocumentation/modProposalView.aspx?propID=223>

Attachment 4A provides a presentation of Imbalance Pricing data for sample Settlement Days from 05/06 and high level statistics derived from the 05/06 data.

Attachment 4B provides the Proposer's presentation setting out the rationale for P205.

Attachment 4C provides analysis provided by a Modification Group Member based on the 05/06 imbalance price data.

Attachment 4D provides further sample Settlement Days highlighted by one respondent to the industry consultation.

## APPENDIX 5: PROCESS FOLLOWED

In granting Urgent Treatment, the Authority indicated that P205 was commercially significant and linked to an imminent date related event. The process followed is outlined in the table below.

| Date                 | Event   |
|----------------------|---|
| 4 July 06            | P205 Modification Proposal raised                             |
| 5 July 06            | Panel considered urgency request                              |
| 6 July 06            | Authority granted urgent status                               |
| 7 July – 7 August 06 | Imbalance Price data generated and made available to industry |
| 2 August 06          | Panel recommended timetable reduction                         |
| 7 August 06          | Timetable revisions approved                                  |
| 7 – 14 August 06     | Modification Group considered Pricing Data                    |
| 15 August 06         | First Modification Group meeting held                         |
| 24 - 30 August 06    | Consultation + Transmission Company Analysis                  |
| 1 September 06       | Second Modification Group Meeting                             |
| 14 September 06      | Urgent Modification Report considered by Panel                |
| 15 September 06      | Urgent Modification Report Issued to Authority                |

## APPENDIX 6: MODIFICATION GROUP MEMBERSHIP

| Member          | Organisation                  | 15/08 | 01//09 |
|-----------------|-------------------------------|-------|--------|
| Sarah Jones     | ELEXON (Chairman)             | ✓     | x      |
| Thomas Bowcutt  | ELEXON (Lead Analyst)         | ✓     | ✓      |
| Chris Welby     | Good Energy<br>(Proposer)     | ✓     | ✓      |
| Rob Smith       | National Grid                 | ✓     | ✓      |
| Martin Mate     | British Energy                | ✓     | ✓      |
| Garth Graham    | Scottish and Southern         | ✓     | X      |
| Paul Dawson     | Barclays Capital              | ✓     | ✓      |
| Dave Wilkerson  | Centrica                      | ✓     | ✓      |
| Ben Sheehy      | E.ON                          | X     | ✓      |
| David Lewis     | EDF                           | ✓     | ✓      |
| Bill Reed       | RWE npower                    | ✓     | ✓      |
| Attendee        | Organisation                  |       |        |
| Chris Stuart    | Ofgem                         | ✓     | ✓      |
| Raihana Braimah | Ofgem                         | X     | ✓      |
| Bob Brown       | Cornwall Energy<br>Associates | ✓     | ✓      |
| Dean Riddell    | ELEXON                        | X     | ✓      |