October 2002

MODIFICATION REPORT

MODIFICATION PROPOSAL P90 – Improving the Representation of Energy Balancing Actions in Cashout Prices

Prepared by ELEXON on behalf of the Balancing and Settlement Code Panel

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c Related Documents

Reference	Document
Reference 1	Modification Proposal P90 'Improving the Representation of Energy Balancing Actions in Cashout' Assessment Report (P090AR10, 12 October 2002)

d Intellectual Property Rights and Copyright

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1 SUMMARY AND RECOMMENDATIONS

1.1 Recommendation

On the basis of the analysis, consultation and assessment undertaken in respect of this Modification Proposal during the Assessment Procedure, and the resultant findings of this report, the BSC Panel recommends that:

Proposed Modification P90 should not be made.

1.2 Background

The Assessment Report for Modification Proposal P90 (Reference 1) contains the detailed background and history of Modification Proposal P90, and this report can be found on the BSC Website, as follows:

ftp://www.elexon.co.uk/ta/modifications/modsprops/P090/P090_assess_report.pdf

Modification Proposal P90 'Improving the Representation of Energy Balancing Actions in Cashout Prices' was raised by First Hydro Company on 8 July 2002. The Initial Written Assessment for Modification P90 was considered at the Panel meeting of 18 July 2002, where the Panel agreed to submit Modification Proposal P90 to a two month Assessment Procedure.

Modification Proposal P90 proposes to calculate Energy Imbalance Prices from price ordered stacks of all Bid Acceptances and all Transmission Company forward trade sales, and all Offer Acceptances and Transmission Company forward trade purchases. After Arbitrage Tagging, the volume on the smaller stack is tagged off of the bigger stack to the level of the Balancing Reserve Limit (BRL).

The 'main' Energy Imbalance Price is then a weighted average of the balancing actions (Bid – Offer Acceptances and Transmission Company forward trades) that comprise the Remaining Imbalance Volume (RIV). The BRL concept is retained for the 'reverse' price at the level determined from time to time by the Authority.

P90 aims to introduce a mechanism for better differentiating system and energy balancing, by stacking all Bid – Offer Acceptances and Transmission Company forward trades and using the Trading Tagging process for differentiation; all system balancing trades are deemed to be those which are Trade Tagged and energy balancing trades are those which remain after Trade Tagging. Additional aims of the Modification Proposal are to simplify the Energy Imbalance Price calculation and to improve transparency of the composition of the calculation.

The Panel noted that Modification Proposal P90 seeks to address similar issues to those dealt with under Modification Proposals P74 'Single Cost – reflective Cash-out Price' and P78 'Revised Definition of System Buy Price and System Sell Price'.

At the time of assessing P90, the Modification Report for each of Modification Proposals P74 and P78 was with the Authority for decision. However the Panel agreed that consideration of the issues identified under P74 and P78 would be required.

The Panel also agreed that the Pricing Issues Modification Group, latterly the Pricing Standing Modification Group (PSMG), should undertake the Assessment Procedure for Modification Proposal P90, as the PSMG had undertaken the assessment of P74 and P78.

During the initial two month Assessment Procedure, the PSMG met four times (on 24 July 2002, 7 and 28 August 2002, and 3 September 2002). One consultation was issued on 16 August 2002 (responses received 27 August 2002). One impact assessment (detailed level) was requested from the BSC Central Service Agent, BSC Parties and ELEXON on 14 August 2002 (M0009, responses received 23 August 2002).

The PSMG met to agree the recommendations with regards to Modification Proposal P90, and any Alternative at its meeting of 3 September 2002. The PSMG agreed that a request for a one month extension should be made to the Panel meeting of 12 September 2002, as a new option for a potential Alternative had been identified, which had not been assessed, and the PSMG wanted to assess P90 in light of the, at that time, pending Authority determination on P74 and P78 (the Authority representative at the meeting of 3 September 2002, indicated that the Authority determination on P74 and P78 would be due on 6 September 2002, i.e. after the Modification meeting).

The PSMG recognised that the Panel may not grant an extension and therefore recommended that if an extension were not to be granted, that Option 6 (set out in section 6 of the P90 Assessment Report) should form the Alternative. In addition the PSMG recommended that Proposed Modification P90 should not be made, and the Alternative Modification P90 (Option 6) should be made.

The Panel considered the draft Assessment Report, and agreed the request for the one month extension. The Panel noted the Authority determination that Proposed Modification P78 should be made.

The PSMG met on 17 September 2002 to consider Modification Proposal P90, Proposed and potential Alternative (Option 6), against the new baseline.

The PSMG considered the Authority determination regarding Modification Proposal P78 and noted that it raised several objections to the reverse price proposed by Alternative Modification P78, i.e. the least extreme Bid – Offer Acceptance or Balancing Services Adjustment Data (BSAD) in the main (Net Imbalance Volume) stack. Since the potential Alternative to P90 (Option 6) sought to utilise the same reverse price as the Alternative Modification P78, the PSMG agreed not to pursue Option 6, given that the same objections could be raised by the Authority.

Therefore, the PSMG defined a further potential Alternative to P90 (Option 7), based on the Proposed P78 baseline, but with disaggregated Transmission Company forward trades interleaved into the Bid – Offer stack. Option 7 would use the mechanism being implemented by Proposed Modification P78, but instead of using Net System and Net Energy Balancing Services Adjustment Data in the Net Imbalance Volume (NIV) calculation, the disaggregated Transmission Company forward trades would be included individually in the Net Imbalance Volume calculation.

The PSMG looked at the possibility of undertaking analysis of the potential Energy Imbalance Prices resulting from the mechanism being implemented by Proposed Modification P78 and by Alternative Modification P90, in order to enable a comparison of the resulting Energy Imbalance Prices.

However, the PSMG noted that such analysis would be very difficult to undertake as a consequence of the complexity of the mechanism to be modelled. The PSMG further noted that such an assessment would, necessarily, be subjective, and therefore, validation and comparison of the Energy Imbalance Prices resulting from P78 and Option 7 could not be easily achieved.

At the PSMG meeting of 17 September 2002, the majority of the PSMG agreed to recommend that Proposed Modification P90 should not be made, there was no Alternative Modification and no further assessment work be undertaken on Modification Proposal P90 (Proposed or Option 7). The PSMG also agreed to issue an industry consultation to seek views on the PSMG recommendations. However, following the meeting, responses were received from members of the PSMG, not present at the meeting, indicating that there was some support for the provisional Alternative Modification. Inclusion of these additional responses resulted in the PSMG being evenly split on support, or not, of the potential Alternative Modification Proposal.

Therefore, at that time the PSMG still agreed that Proposed Modification P90 should not be made, and the Alternative Modification (Option 7) proposed, provisional upon the results of an industry consultation. An industry consultation was issued on 27 September 2002, with responses due back on 7 October 2002.

The PSMG met on 9 October 2002 to discuss the responses made in respect of the second consultation and to finalise the recommendations to be made in respect of Modification Proposal P90, Proposed and any Alternative.

The PSMG noted that the consultation responses were evenly split (as per the PSMG) in respect of supporting, (or not), the potential Alternative Modification P90 (Option 7). PSMG noted that there was no defined requirement, costs or timescales for this potential Alternative. The PSMG considered requesting the Panel for an extension to the Assessment Procedure of an additional month, (from three months to four months), in order to define the detailed solution and obtain an impact assessment and derive the Implementation Date.

However, on balance, and after consideration of the issues, the majority of the PSMG agreed to recommend to the Panel that:

– Proposed Modification P90 should not be made;

– No Alternative Modification should be proposed; and

– The issues raised during consideration of Modification Proposal P90 should be considered by the Pricing Standing Modification Group, (noting that a BSC Party would be required to raise the issue for the standing group to be able to consider it).

The Panel considered the Assessment Report at its meeting of 17 October 2002 and unanimously agreed to support the recommendations of the PSMG with regards to Modification Proposal P90.

The Panel also requested the Authority to indicate whether legal drafting would be required for Proposed Modification P90. At the Panel meeting of 17 October 2002, the Authority indicated that legal drafting would not be required for Proposed Modification P90 and therefore none is contained within this draft Modification Report.

Based on the Panel recommendation that Proposed Modification P90 should not be made, no Implementation Date is recommended.

[The consultation responses made in respect of this draft Modification Report indicated that … pending receipt.]

1.3 Rationale for Recommendations

This history of Modification Proposal P90 set out in the Assessment Report provides some additional context in relation to the rationale of the PSMG with regards to the recommendations made to the Panel.

The Panel supported the rationale of the PSMG with regards to the recommendations made in respect of Modification Proposal P90 and the Proposed Modification, and these can be summarised as follows:

The majority of the PSMG believe that Proposed Modification P90 does not create a better differentiation between system and energy balancing actions, and that therefore the resulting Energy

Imbalance Prices are consequently not any more cost-reflective of energy balancing actions than the current (Proposed Modification P78) mechanism.

It should be noted that some members of the PSMG believe that Proposed Modification P90 does create a better differentiation between system and energy balancing actions, and that consequently the resulting Energy Imbalance Prices are more cost-reflective of energy balancing actions than the current mechanism.

However, as the majority of the PSMG do not believe that the mechanism proposed by Proposed Modification P90 gives more cost-reflective Energy Imbalance Prices then the reasons for it not facilitating the Applicable BSC Objectives are as follows:

– The reporting of disaggregated Transmission Company forward trades may improve transparency for BSC Parties, which may also incentivise the Transmission Company (system operator) to balance the market more efficiently and effectively;

– However, given the potential volatility in the Energy Imbalance Prices resulting from the removal of the Continuous Acceptance Duration Limit, the market is unlikely to come closer to balance, as the incentive is to over contract to reduce the risk of exposure to imbalance, therefore this may reduce the ability of the Transmission Company (system operator) to balance the market more efficiently and effectively;

– Any potential reduction in the cost-reflectivity of Energy Imbalance Prices may have the effect of reducing the accuracy of signals to the Transmission Company (system operator) and BSC Parties of the costs of balancing the system, thus potentially failing to promote the efficient, economic and co-ordinated operation of the Transmission System;

– As the Proposed Modification has the potential to increase the spread of the Energy Imbalance Prices, the risks of exposure to imbalance are at least equal to, and potentially higher than, the current baseline, thus potentially reducing competition in the sale and purchase of electricity. Any increase in the risk of exposure to imbalance potentially decreases the incentive to balance, and therefore reduces bilateral trading ahead of Gate Closure. This potentially has the effect of discouraging Parties from trading closer to real time, thus reducing liquidity in the forwards and spot markets and reducing competition;

– Any reduction in the cost-reflectivity of Energy Imbalance Prices means that there is the potential for the costs of energy balancing to be less correctly targeted at those causing the imbalance, thus potentially reducing competition by creating cross subsidies;

– The implementation of a potentially less cost-reflective cash-out regime may reduce the incentives on parties to balance their positions ahead of Gate Closure, which may have the affect of increasing the number of actions the Transmission Company (system operator) has to take to correct the imbalance of the system. Thus this potentially increases the role of centrally administered mechanisms and does not facilitate the bilateral trading of energy;

– An increase in the risk of exposure to imbalance may have the effect of discouraging Parties from trading closer to real time, thus reducing liquidity in the forwards and spot markets and reducing competition;

– Proposed Modification P90 introduces a level of simplicity into the Settlement calculations that may have the effect of improving efficiency in the implementation and administration of the balancing and settlement arrangements; and

– The Proposed Modification increases the administration costs of the balancing and settlement arrangements and this may outweigh any benefits of implementation of the Proposed Modification.

2 INTRODUCTION

This Report has been prepared by ELEXON Ltd., on behalf of the Balancing and Settlement Code Panel ('the Panel'), in accordance with the terms of the Balancing and Settlement Code ('BSC'). The BSC is the legal document containing the rules of the balancing mechanism and imbalance settlement process and related governance provisions. ELEXON is the company that performs the role and functions of the BSCCo, as defined in the BSC.

This Modification Report is addressed and furnished to the Gas and Electricity Markets Authority ('the Authority') and none of the facts, opinions or statements contained herein may be relied upon by any other person.

An electronic copy of this document can be found on the BSC website, at www.elexon.co.uk

3 HISTORY OF THE MODIFICATION

Modification Proposal P90 has been extensively assessed by the PSMG, and the detail of the assessment is provided in the Assessment Report for Modification Proposal P90 (Reference 1), and is therefore not repeated here.

4 DESCRIPTION OF PROPOSED MODIFICATION

The following description of Proposed Modification P90 is based on the definition determined during the Assessment Procedure for Modification Proposal P90 prior to the Authority determination that Proposed Modification P78 should be made (received on 9 September 2002).

Following the Authority determination on P78, the PSMG requested, and were granted, a month's extension to the Assessment Procedure to assess Modification Proposal P90 against the Proposed Modification P78 baseline. The majority of the PSMG did not believe that Proposed Modification P90 better facilitated achievement of the Applicable BSC Objectives than the 'Proposed Modification P78' baseline, and therefore no further work was undertaken by the PSMG to align the definition for Propsoed Modification P90 with the P78 baseline.

Therefore the following description is based on the 'pre-P78' baseline.

Proposed Modification P90 seeks to remove the application of (perceived) arbitrary judgements as to whether balancing actions were taken for the purposes of system or energy balancing:

– In the case of a Bid – Offer Acceptance, this is currently achieved by the application of the Continuous Acceptance Duration Limit (CADL); and

– With regards to Transmission Company forward trades, an assessment is currently made by the Transmission Company as to the purpose of the trade, with those trades deemed to have been for energy balancing purposes notified as BSAD.

Proposed Modification P90 proposes to remove the application of the Continuous Acceptance Duration Limit (CADL) and to remove the assessment of the Transmission Company as to the purposes of the forward trade. Instead, Proposed Modification P90 proposes to stack <u>all</u> Bid – Offer Acceptances and <u>all</u> (individual) Transmission Company forward trades and use the Trading Tagging process for energy and system balancing differentiation; all system balancing trades are deemed to be those which are Trade Tagged and energy balancing trades are those which remain after Trade Tagging.

The detailed description of Proposed Modification P90, and the amendments required to give effect to the Modification are set out in full in section 5 of the Assessment Report for P90 (Reference 1). This section provides only a high level summary of the Proposed Modification.

4.1 Proposed Modification Overview

Proposed Modification P90 requires amendment to the mechanism for formulating and reporting BSAD trades and to the calculation of the Energy Imbalance Prices.

Currently, the energy proportion of forwards trades undertaken by the Transmission Company is reported (on a gross basis) as Balancing Services Adjustment Data (BSAD), for use in the Energy Imbalance Price calculation. BSAD values are used in the Energy Imbalance Price calculation after the Bid – Offer Acceptances for the Settlement Period have had CADL applied, and De Minimis Tagging, Arbitrage Tagging and Trade Tagging performed.

Modification P90 proposes that all forwards energy and system trades undertaken by the Transmission Company are reported individually into the BSC Central Service Agent and then used in the Energy Imbalance Price calculation as if they are Bid – Offer Acceptances for the purposes of Trade Tagging, i.e. stacked and then tagged out where appropriate (Figure 4.1 below).

Modification P90 proposes that all Bid – Offer Acceptances (after Arbitrage and De Minimis tagging has been applied) are stacked in price order (as shown in Figure 4.1 below) with individual (system and energy) BSAD trades included in the relevant points in the stack. The stacks then have Trade Tagging applied to the level of the Balancing Reserve Level. For the avoidance of doubt, this mechanism removes the requirement for the application of the Continuous Acceptance Duration Limit (CADL) to Bid – Offer Acceptances.

The proposed mechanism stacks all energy and system balancing actions, i.e. all Bid – Offer Acceptances and all system and energy (individual) BSAD trades, and then uses the existing Trade Tagging mechanism (i.e. tagging to the level of the Balancing Reserve Level (BRL)) to derive the Remaining Imbalance Volume (on the larger stack), and balancing actions to the level of BRL on the smaller stack.

The balancing actions taken to alleviate the Remaining Imbalance Volume are then used to calculate the main Energy Imbalance Price, and the balancing actions (to BRL) on the smaller (reverse) stack set the reverse Energy Imbalance Price. Where the Remaining Imbalance Volume is zero, or there is no volume on the smaller stack, then the current Energy Imbalance Pricing default rules are invoked.

For the avoidance of doubt:

- Where the system is long, the Bid (and Transmission Company forward sales) stack will be the main stack, and the main price will be the System Sell Price. The reverse stack will be the Offer (and Transmission Company forward purchase) stack and the reverse price will be the System Buy Price; and
- Where the system is short, the Offer (and Transmission Company forward purchase) stack will be the main stack, and the main price will be the System Buy Price. The reverse stack will be the Bid (and Transmission Company forward sale) stack and the reverse price will be the System Sell Price.

The Balancing Mechanism Reporting Agent (BMRA) will calculate and publish the Indicative Energy Imbalance Prices as defined above, to the currently defined schedule.

The Energy Imbalance Prices are calculated as defined above by the Settlement Administration Agent (SAA) and then applied to Energy Imbalance Volumes as currently defined.

It should be noted that the mechanism proposed by Proposed Modification P90 is based on the principle proposed by Proposed Modification P78, where all (system and energy) balancing actions taken by the Transmission Company for a Settlement Period are netted off to leave a net energy imbalance (the Net Imbalance Volume (NIV)), which is deemed to be the energy imbalance of the system. This mechanism necessarily removes all of the smaller stack for the Settlement Period, deeming it to be for system balancing purposes.

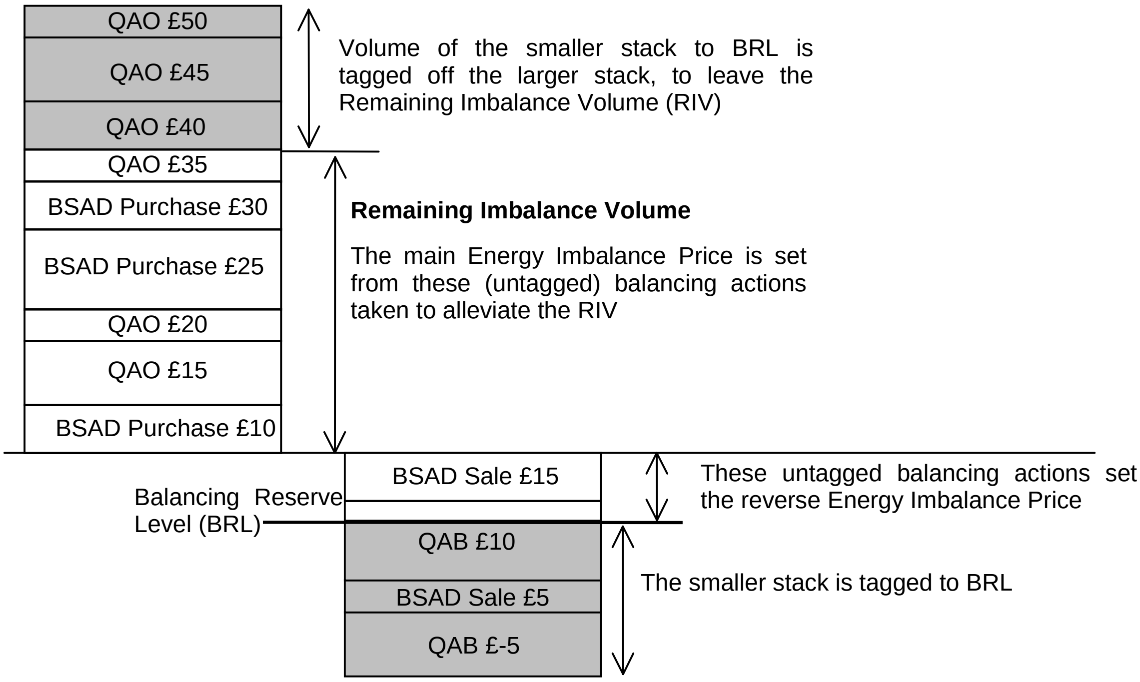
Proposed Modification P90 uses a similar mechanism in terms of stacking all system and energy balancing actions (although the treatment of BSAD is different between the two Modifications), and undertaking some netting. However, the key feature of Proposed Modification P90 is that it assumes that some balancing actions taken in the opposite direction to the overall system imbalance were taken for energy balancing purposes, and that these should set the Energy Imbalance Price for application to imbalance volumes in the opposite direction to the overall system imbalance. The volume of balancing actions deemed to have been taken for energy balancing purposes is set by the Balancing Reserve Level (BRL).

Therefore Modification P90 deems that:

- Smaller (reverse) stack: Balancing actions to the level of BRL on the smaller (reverse) stack were taken for the purposes of energy balancing, with all other balancing actions in that direction being taken for system purposes; and
- Larger (main) stack: The volume of system actions on the smaller stack is netted off the larger (main) stack (see Figure 4.1 below) to leave the Remaining Imbalance Volume. Balancing actions taken to alleviate the Remaining Imbalance Volume are deemed to have been taken for the purposes of energy balancing. All other balancing actions (i.e. those netted off) in that direction are deemed to have been taken for the purposes of system balancing.

Thus Proposed Modification P90 implements a new differentiation between energy and system balancing actions for a Settlement Period. For the avoidance of doubt, this mechanism removes the requirement for (arbitrary) system balancing action differentiation via application of the CADL variable, as it undertakes the system / energy differentiation via Trade Tagging.

ALL (system and energy) Offer Acceptances are stacked in price order (as reflected below) after Arbitrage and De Minimis Tagging is applied (i.e. no CADL'ing is undertaken). Individual (system and energy) BSAD Purchases are slotted into the stack in price order. Trade Tagging is then applied to the stack to the level of BRL.



ALL (system and energy) Bid Acceptances are stacked in price order (as reflected above) after Arbitrage and De Minimis Tagging is applied (i.e. no CADL'ing is undertaken). Individual (system and energy) BSAD Sales are slotted into the stack in price order. Trade Tagging is then applied to the stack to the level of BRL.

Figure 4.1: High Level Schematic of Proposed Mechanism under Modification P90.

5 LEGAL TEXT TO GIVE EFFECT TO THE PROPOSED MODIFICATION

None provided, as agreed by the Authority.

6 SUMMARY OF REPRESENTATIONS

[Pending receipt ...]

ANNEX 1 – REPRESENTATIONS

[Pending receipt ...]