March 2002

ASSESSMENT REPORT

MODIFICATION PROPOSAL P12 – REDUCTION OF GATE CLOSURE FROM 3.5 HOURS TO 1 HOUR

Prepared by the P12 Modification Group on behalf of the Balancing and Settlement Code Panel

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b Distribution

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II CONTENTS TABLE

1 SUMMARY AND RECOMMENDATIONS

Please see separate Executive Summary attachment.

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.

An electronic copy of this document, the Definition Report and relevant Panel papers can be found on the BSC website, at www.elexon.co.uk.

3 DESCRIPTION AND ASSESSMENT AGAINST THE APPLICABLE BSC OBJECTIVES

3.1 Description of Proposed Modification

The Modification seeks the reduction of Gate Closure time from 3.5 hours to 1 hour; a copy of the proposal is attached as **Annex 7** of this report. The rationale given for the Modification was that it would increase competition in the generation and supply of electricity, without compromising the physical balancing of the system because the majority of balancing actions in the final hour prior to real time.

According to the Proposer, the current length of Gate Closure exposes market participants to a significant imbalance risk. Any unforeseen changes in demand or generating capability, such as plant failure, occurring after the Gate has closed cannot be acted upon. The potential to trade up to 2.5 hours closer to real time would reduce this risk and improve liquidity in short-term markets.

3.2 Evaluation of Modification Against Assessment Criteria

The Panel asked the Group to establish a set of Assessment Criteria against which the merits of the Modification could be evaluated. The criteria were finalised and approved by the Panel on October 31st 2001 and are as follows:

- Criterion 1: impact on trading
- Criterion 2: impact on system management
- Criterion 3: Cost-Benefit Analysis

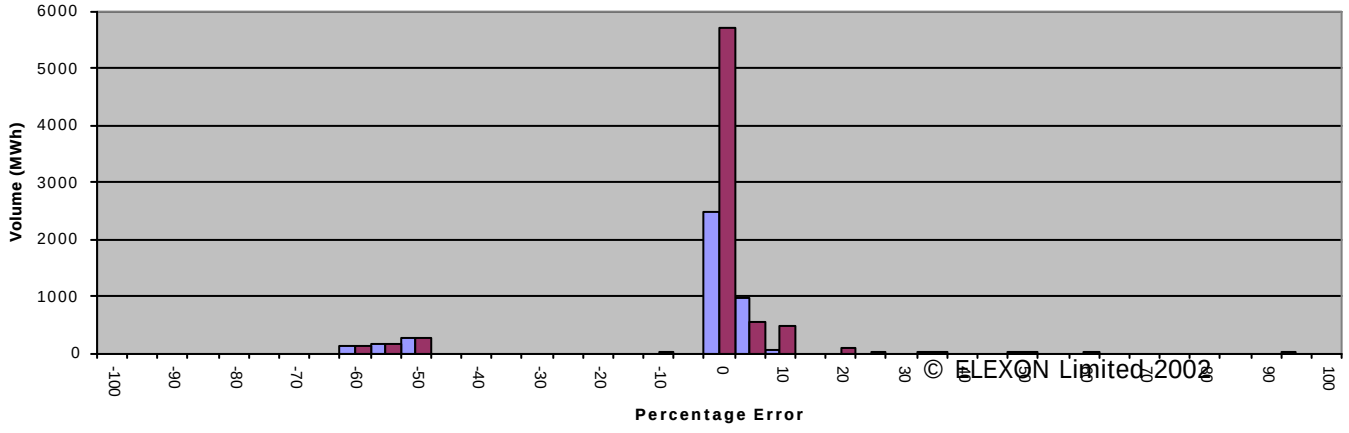
Details of the rationale behind the criteria are attached as **Annex 5** of this report.

3.2.1 Assessment Against Criterion 1: Impact on Trading

The first criterion against which the Modification was assessed was its impact on the trading environment. Three impacts were assessed – the impact on forecasting accuracy of generation and demand, the impact on liquidity in short-term markets and the impact on energy imbalance prices. The assessment was based on historical market data and consultation with Parties.

Current **forecasting accuracy** was estimated by comparing Final Physical Notifications (FPNs), adjusted by any relevant Bid-Offer Acceptances (BOAs), to metered volumes. The impact of the Modification on forecasting accuracy was estimated following consultation with Parties. The graph below represents the metered volumes of generators and suppliers as a

Figure A: Metered Volumes as Percentage Error of FPNs



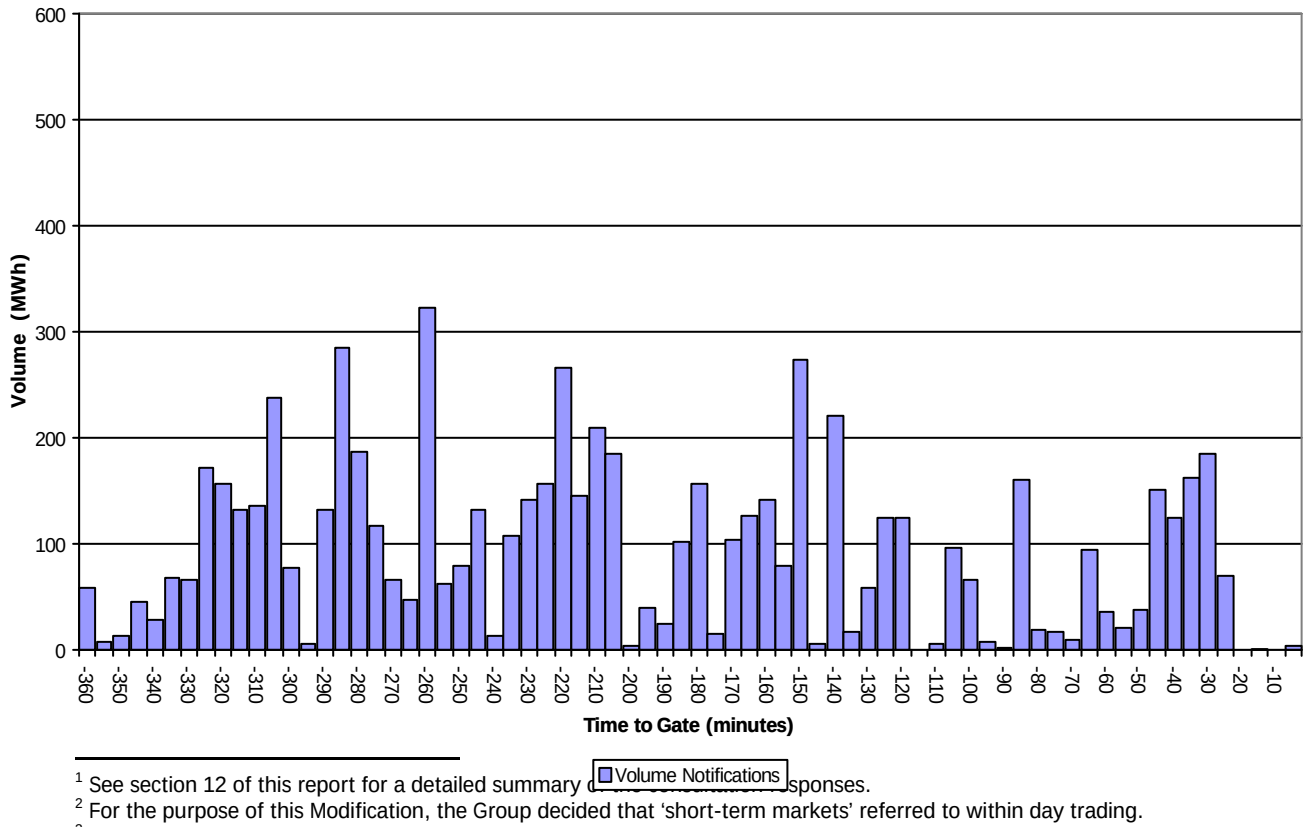
percentage error of BOA-adjusted FPNs for a sample of random Settlement Periods:

The graph suggests that there is scope for improvement in the current forecasting accuracy of generators and suppliers. Furthermore, the majority of consultation respondents believed that the forecasting accuracy of both generation and demand would improve under a one-hour Gate Closure[1]. This was because generators could adjust their FPNs to respond to plant failures occurring between 3.5 hours and 1 hour ahead of real time. In addition, but to a lesser extent, respondents felt that demand forecasting would improve because more accurate weather data would be available closer to real time.

On the basis of historical data and consultation responses, the Group believe that forecasting accuracy, particularly that of generators, would improve under a one-hour Gate Closure – unforeseen outages occurring close to real time could be factored into the FPNs submitted to the SO. In addition, the Group felt that lgenerators with less predictable output, such as CHP plants and wind farms, and commissioning plant would particularly benefit from the extra time that would be available to develop forecasts and respond to changes in generating circumstances.

Current **liquidity** in short-term markets[2] was estimated by examining the timing of Volume Notifications submitted to the ECVAA in relation to a Settlement Period and the potential impact of the Modification on liquidity was estimated by consulting Parties. Historical data[3] indicated that notifications are concentrated in the final six hours before Gate Closure, the graph below plots notifications (in terms of MWh) against time to Gate Closure for those final six hours:

Figure B: Volume Notifications (Final 6 Hours Prior to Gate)



[1] See section 12 of this report for a detailed summary of the consultation responses.
[2] For the purpose of this Modification, the Group decided that 'short-term markets' referred to within day trading.
[3] A random sample of 44 Settlement Periods across the first ten months of NETA was selected. Each column in Figure B represents the average number of volume of energy notified in the corresponding ten-minute period across the 44 Settlement Periods.

The pattern of notifications in the final 6 hours suggests that the bulk of trading in short-term markets is concentrated between 2 and 5.5 hours ahead of Gate Closure. In addition, there is a second, smaller, concentration of notifications between 15 and 45 minutes ahead of Gate Closure. However, the graph suggests that little trading occurs in the final 15 minutes – the Group believes that this is due to the perceived risk associated with notification rather than a lack of desire to trade closer to real time.

The majority of consultation respondents believed that a one-hour Gate Closure would increase liquidity in short-term markets. Respondents felt that if generators were less exposed to imbalance risk they would feel more confident to trade and that trading would also take place in response to unforeseen plant failure. In addition, it was felt that a portion of balancing actions previously taken by the SO in the Balancing Mechanism (BM) would take place as bilateral trades between market participants in the light of better, more timely, knowledge about their energy requirements.

In summary, on the basis of historical data and consultation responses, the Group believes that liquidity in short-term markets would improve under a one-hour Gate Closure – an opportunity would be created for market participants to trade closer to real time and respond to unforeseen events.

The impact of the Modification on imbalance **prices** was estimated by removing BOAs that were accepted more than an hour ahead of real time from the pricing calculation. In addition, to simulate anticipated SO behaviour, overlapping BOAs on the same BM Unit were treated as a single acceptance because they could have been issued as a series of separate, shorter, acceptances across consecutive Balancing Mechanism Window Periods. A six-day sample of Settlement Periods in September 2001 was analysed, the period was chosen because ELEXON only possessed a limited data set of acceptance times. The graphs below demonstrate the impact of the methodology described above on the System Buy Price on September 18th, September 19th, September 20th and September 23rd:

Figure C: September 18th 2001

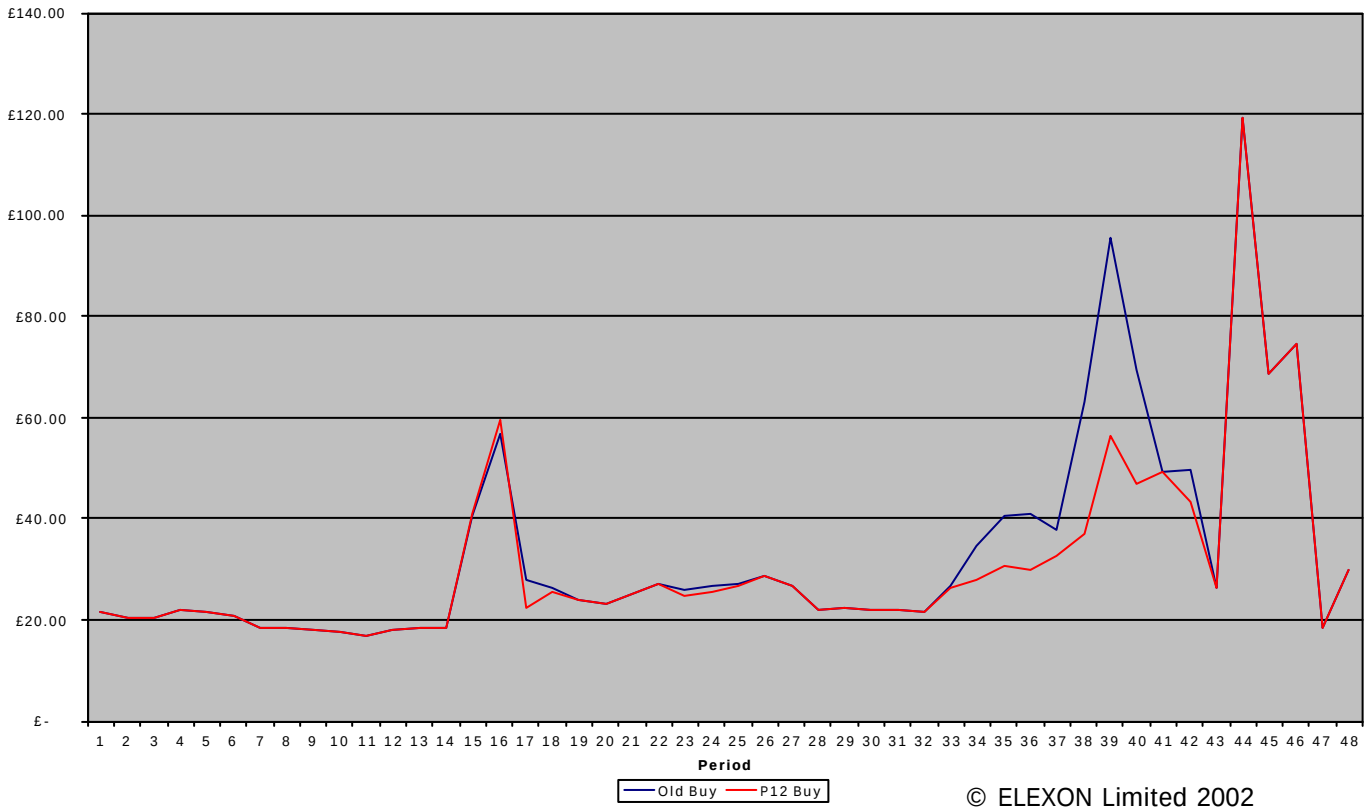


Figure D: September 19th 2001

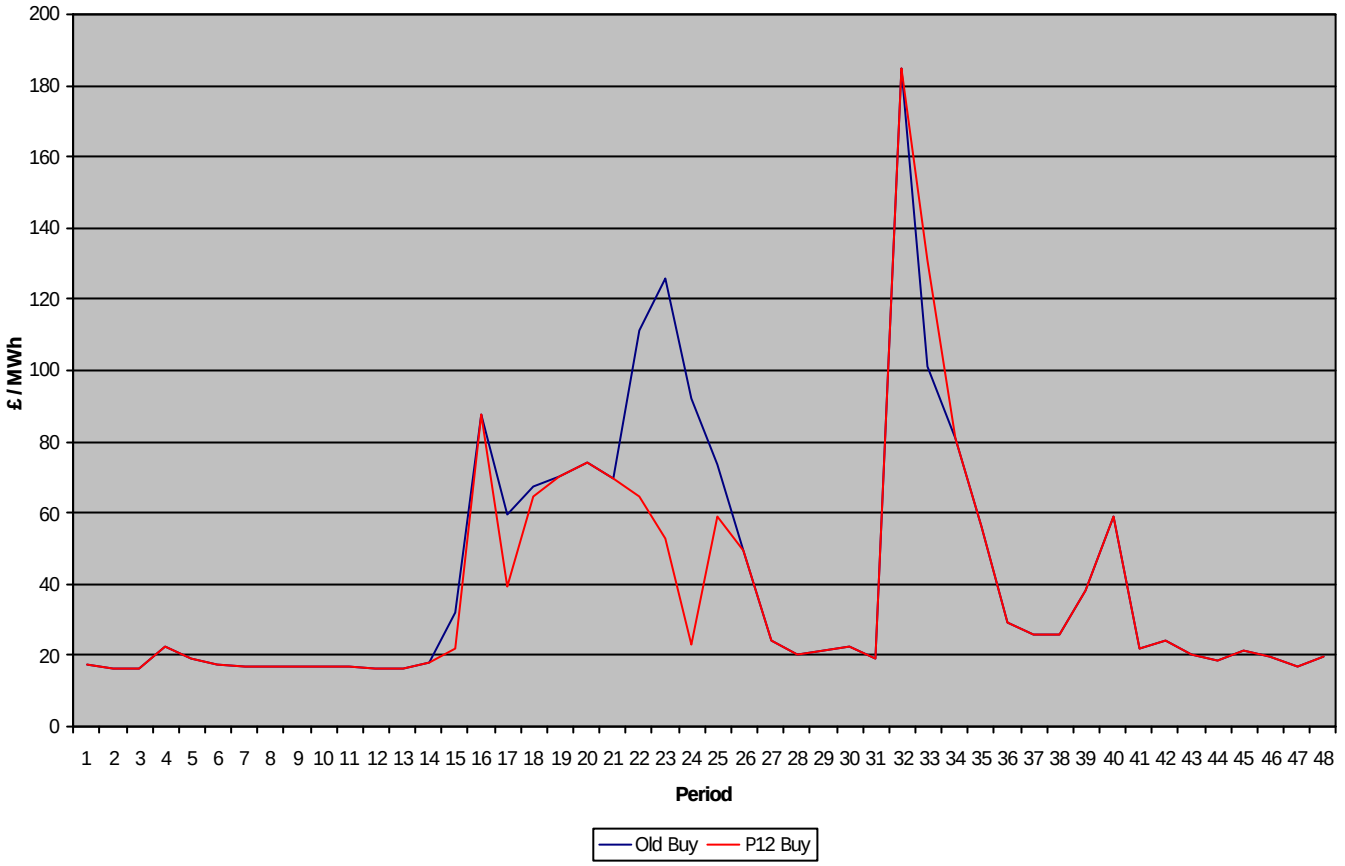


Figure E: September 20th 2001

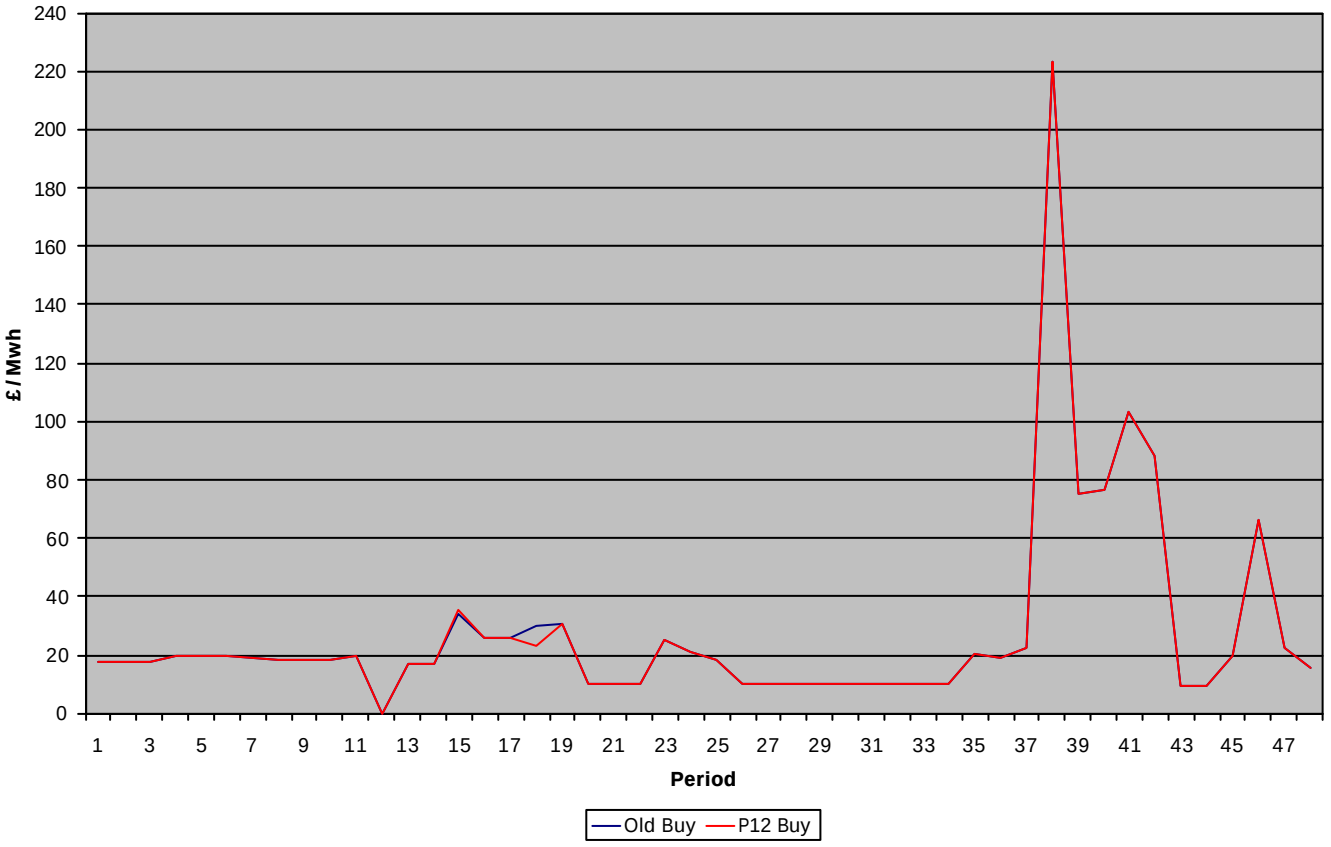
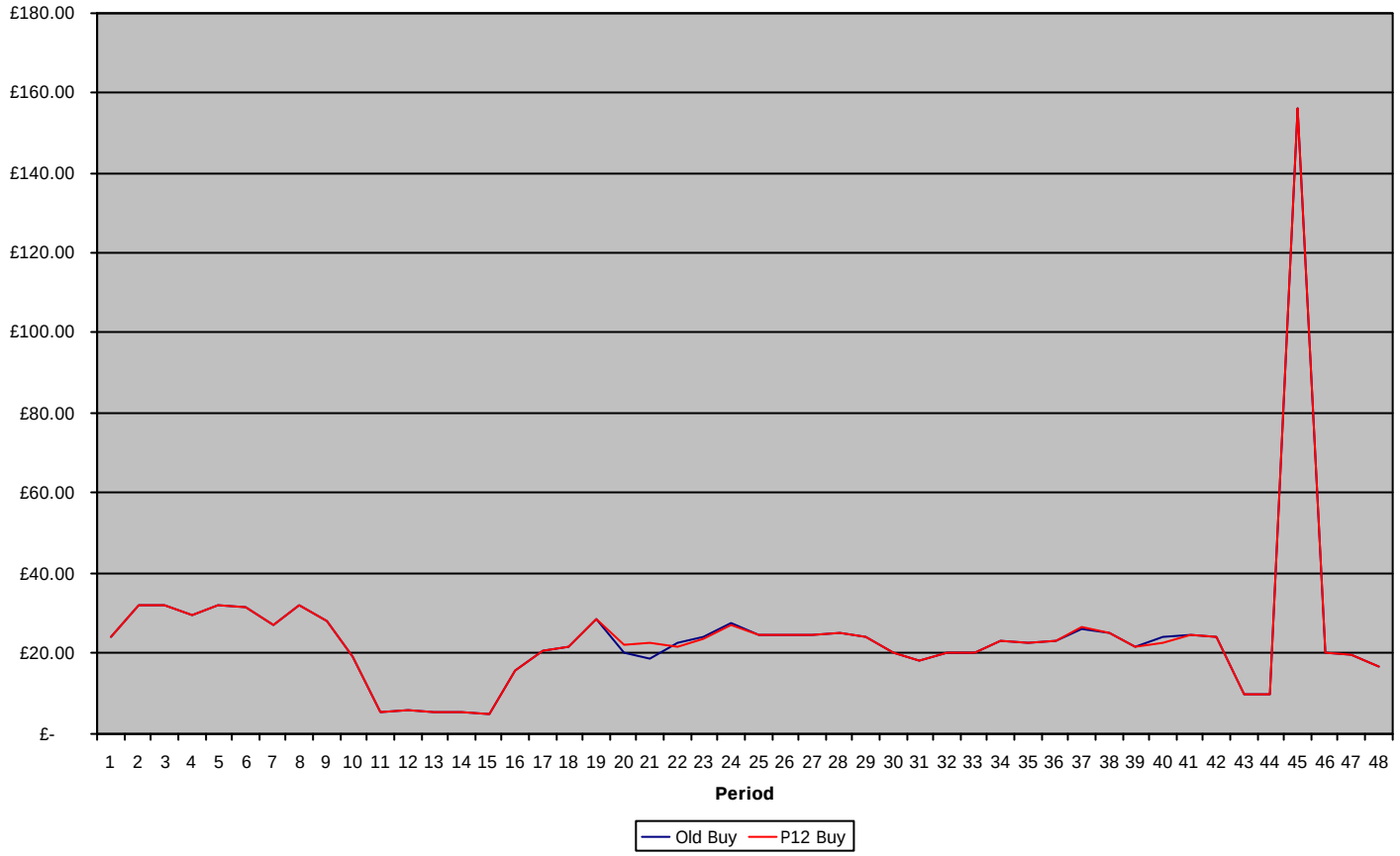


Figure F: September 23rd 2002



There are no graphs for September 21st and 22nd 2002, because the methodology described above resulted in no BOAs being removed. In general, the four graphs suggest that a reduction in Gate Closure would not have a significant impact on imbalance prices – this is consistent with statistics provided by the SO which indicate that 78% of BOAs are taken within an hour of real time[4].

The Group was aware of the inevitable limitations of the methodology used to simulate one-hour Gate Closure. First, whilst certain BOAs were removed there was no compensatory inclusion of new pre-Gate Closure actions into BSAD which would feed back into the pricing calculations – precise simulation of how balancing actions no longer able to be taken in the BM would translate into pre-Gate Closure actions was deemed impossible. Second, it was assumed that the behaviour of markets participants would not change under a one-hour Gate Closure – an improbable assumption. Finally, treatment of overlapping BOAs on the same BMU as a single action is a speculative approximation of SO behaviour under a one-hour Gate Closure.

On balance, however, the Group believe that the pricing analysis carried out is sufficient to anticipate that reducing Gate Closure would not have a dramatic negative impact on imbalance prices – prices would probably either be unchanged or largely unchanged.

3.2.2 Assessment Against Criterion 2: System Management

The second criterion against which the Modification was assessed was its impact on the ability of the SO to manage the transmission network and balance the market. The SO was asked, in accordance with Section F2.6.6(a) of the Code, to assess three impacts – the impact on security of supply, the impact on compliance with operational standards and the

[4] The statistic was provided by the SO in its DLIA, which is attached as Annex 4 of this report.

impact on efficient balancing of the market. The Detailed Level Impact Assessment (DLIA) received from is contained in Annex 4 of this report.

First, the SO reported that, whilst a reduction in Gate Closure time may affect the volume of 'energy' balancing actions required, it would still be required to undertake 'system' balancing actions to ensure that system security and frequency are maintained. However, the SO was confident that **security of supply** would not be compromised by movement to a one-hour Gate Closure – provided that its ability to take necessary actions through pre-Gate Closure contracts was not diminished. Balancing services[5] provided by plants without the dynamic necessary to operate in the proposed 1.5 hour Balancing Mechanism Window would need to be able to be procured prior to Gate Closure.

Second, the SO reported that **compliance with operational standards**[6] would not be affected by movement to one-hour Gate Closure, provided that its ability to take necessary actions through pre-Gate Closure contracts was not diminished.

Third, the SO reported that, provided that its ability to take necessary actions through pre-Gate Closure contracts was not diminished, its ability to **balance the market** would not be affected by movement to one-hour Gate Closure. First, the volume of firm feasible Bids and Offers would only be diminished marginally – approximately 78% of BOAs are taken and delivered within a one-hour time frame. Second, longer duration BOAs called from participants with sufficient dynamics could be divided into blocks of less than an hour and issued in consecutive hours. Third, balancing contracts to enable new pre-Gate Closure actions to be taken are currently being devised and consulted on with industry.

Finally, the SO reported that a possibility existed that implementation of the Modification would result in a temporary increase in balancing costs and a temporary reduction in balancing efficiency as occurred during the transition to NETA. The SO indicated that it would endeavour to minimise any transition costs as confidence develops in the market. However, as with the transition to NETA, accurate prediction of the magnitude of transition costs is not possible.

In summary, the Group believes that the SO's ability to manage the system and balance the market efficiently would not be diminished by movement to a one-hour Gate Closure.

3.2.3 Assessment Against Criterion 3: Cost-Benefit Analysis

The final criterion against which the Modification was assessed was the balance of costs and benefits associated with movement to a one-hour Gate Closure. The assessment was made by balancing the impact on the trading environment against the impact on system management and the costs involved with implementing the Modification.

As previously stated, the Group judges that under one-hour Gate Closure imbalance risk would be diminished because forecasting accuracy, liquidity and trading options would increase without a negative impact on imbalance prices. Therefore, the Group anticipates that one-hour Gate Closure would deliver real **benefits** to market participants.

Against this, the Group believed that a secure and balanced system could be maintained with relatively small implementation costs[7]. Therefore, the Group anticipates that the **costs** of implementing the Modification would be minor relative to the benefits delivered.

[5] The SO anticipated that these would primarily be actions to synchronise and desynchronise generating plant.
[6] Frequency and voltage standards are examples of operational standards.
[7] Details of the estimated implementation costs can be found in sections 5 , 7 and 9 .

3.3 Evaluation of Modification Against Applicable BSC Objectives

The ultimate purpose of any Assessment Procedure is to assess whether or not the proposed modification would better facilitate achievement of the Applicable BSC Objectives. The objectives, contained in Condition C3 (3) of the Transmission Licence, are as follows:

(a) the efficient discharge by the Licensee of the obligations imposed upon it by this licence;

(b) the efficient, economic and co-ordinated operation by the Licensee of the Licensee's Transmission System;

(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;

(d) without prejudice to paragraph 10, promoting efficiency in the implementation and administration of the balancing and settlement arrangements described in paragraph.

The Group believes that Applicable BSC Objective C3(3)(c) would be better facilitated by implementation of the Modification – a more competitive environment would be created because market participants would be less exposed to imbalance risk due to increased trading opportunities and the potential for more accurate forecasting. In addition, this more competitive environment would not come at the expense of any of the other three Applicable BSC Objectives – neither the role of the SO nor the operation of the Central Systems would be compromised.

3.4 Prompt Pricing

The Panel referred issue of 'prompt pricing' was referred to the Group for consideration.

Modification Proposal P38 ('Redefined Definition of CAD to Allow Prompt Price Reporting') was raised to rectify the perceived negative impact on Balancing Mechanism reporting timescales and imbalance price transparency introduced by Modification P18a. The perception was that because the reporting of indicative imbalance prices could be delayed by up to forty-five minutes, market participants would not receive information promptly enough to make estimates of the actual imbalance prices. During assessment of the proposal, however, it was established that there would typically be a delay of only fifteen minutes compared to prior to the introduction of P18a.

In January 2002, the Panel endorsed the Modification Group's proposal that P38 should be sent to the Authority with a recommendation to reject. The Modification Group considering P38 had concluded that, in the case of a 3.5 hours Gate Closure, no substantive issue of delayed reporting existed. However, the Group also recognised that a reduction in Gate Closure could increase the importance of timely price reporting. Nevertheless, it was also felt that there was no evidence that there would be a lack of prompt pricing under a one-hour Gate Closure.

Having considered the issue, the Modification Proposal P12 Group decided that prompt pricing was not an issue that need be considered further under this Assessment Procedure. The Group believed that prompt pricing would note be an issue under one-Gate Closure for the following reasons:

- Short-term price trends have little value in planning future actions;
- Short-term planning is more influenced by the nature, MWh level, Bid/Offer prices and the duration of BOAs, which are all available as soon as a Bid or Offer has been accepted; and
- Regardless of when prices are published within a Settlement Period, there would be insufficient time to respond to the signals for a number of Settlement Periods.

In summary, the Group considered that the proposal to reduce Gate Closure to one hour should be considered on its own merits. Should any market participants feel that if and when one-hour Gate Closure is introduced prompter pricing is necessary, a Modification to the Code could be proposed.

4 IMPACT ON BSC AND BSCCO DOCUMENTATION

4.1 BSC

Implementation of the Modification would require minimal changes to the Code. In general, the concept of Gate Closure is referred to rather than the current time of 3.5 hours. However, there are a number of clauses in which either 3.5 hours is referred to explicitly or a specific time, based on the assumption that Gate Closure is 3.5 hours, is mentioned. The legal drafting required to implement the Modification is attached as **Annex 1** of this report.

The 'Gate Closure' entry in the 'General Glossary' (i.e. Annex X-1) would need to be changed from 3.5 hours to 1 hour. Similarly, the 'Balancing Mechanism Window Period' entry in the 'Technical Glossary' (i.e. Table X-2 in Annex X-2) would need to be changed from 3.5 hours and 4 hours to 1 hour and 1.5 hours respectively.

In the section on 'Continuous Acceptance Duration' (CAD), the period within which an Acceptance for a particular BM Unit can be considered 'related' to another Acceptance on the same BM Unit is defined in relation to a 3.5 hour Gate Closure. Therefore, the references to 'eight Settlement Periods' (i.e. a period representing a Balancing Mechanism Window Period of 4 hours) would need to be changed to reflect one-hour Gate Closure (i.e. a period of 3 Settlement Periods representing the 1.5 hours Balancing Mechanism Window Period that a one-hour Gate Closure would entail).

4.2 Code Subsidiary Documents

One 'Balancing and Settlement Code Procedure' (BSCP) would need to be changed to implement the Modification – BSCP507 'Supplier Volume Allocation Standing Data Changes'. In the procedure timetable, the SVAA has to confirm date and timestamp change requests received up to and including 8.30pm on every day of the year. The timing is intended to tie in with the Gate Closure for the first Settlement Period of the following day. Therefore, to reflect a one-hour Gate Closure the confirmation deadline would need to be changed to 11.00pm.

5 IMPACT ON BSC SYSTEMS

The following BSC system impacts were identified during the Assessment Procedure.

5.1 Contract Notification & Credit Checking

The BSC Agent provided a Detailed Level Impact Assessment (DLIA) attached as part of **Annex 3** of this report. The DLIA indicates that implementation of the Modification will require regression testing of the Energy Contract Volume Aggregation Agent (ECVAA) system, to ascertain whether or not any software changes will be required.

5.2 Balancing Mechanism Activities

The SO has indicated, see the DLIA attached as **Annex 4** of this report for further details, that essential changes will be required to its systems to support a one-hour Gate Closure. Furthermore, in anticipation of the Modification's approval, these changes are already underway and will be deployed and operational in time for the proposed implementation date.

In addition, the SO reported that changes will also need to be developed to increase the robustness of its existing systems critical to a one-hour Gate Closure and that new systems will need to be developed to support the expected increase in pre-Gate Closure activity.

5.3 Reporting

The BSC Agent in its DLIA, attached as part of **Annex 3** of this report, indicated that BMRS will require changes to the hard coded Gate Closure Value and the relevant 'help text' to implement the Modification.

The Group believe that reporting of the SO's proposed Pre-Gate Closure BMU Transactions ('PGB Transactions') will be essential to maintain the transparency of balancing actions if the Modification is implemented. In the long run, the Group believes the ideal enduring solution would be the reporting of the System Operator's PGB Transaction requirements on the BRMS[8]. However, in the interim, the Group were satisfied with the SO's suggestion of placing data relating to the PGB Transactions actually made on the BMRS 'System Warning Screen'. Given that the System Warning Screen is part of the BMRS website developed and operated by the BMRA, a 'Change Proposal' would need to be developed and approved for this data to be placed on the site.

5.4 Cost of System Changes & Testing

The cost of the ECVAA testing and the changes to BMRS would be £111,991 (excluding VAT) and an ongoing monthly maintenance charge of £1,307 (excluding VAT The testing and changes would take 11 weeks to perform.

Please note that ELEXON are currently in discussion with the BSC Agent over the quote provided and that a portion of the quote represents costs associated with ensuring that any impact on the BSC Systems Release is minimised.

[8] Please note that this enduring solution would require a change to Section V of the Code that specifies the data reported on the BMRS.

5.5 Implementation of BSC Systems Changes

The BSC Agent indicated that completion of the changes and testing necessary to implement the Modification on July 2nd is contingent on an assumed start date of April 15th 2002. In addition, the BSC Agent noted that an outage, from 11.15 to 13.45, would be required on July 2nd 2002 to implement the Modification.

6 IMPACT ON CORE INDUSTRY DOCUMENTS AND SUPPORTING ARRANGEMENTS

The Modification would have the following impacts on the Core Industry Documents and other arrangements supporting the BSC.

6.1 Grid Code

Changes to clarify the Grid Code may be required. However, NGC does not believe they are necessary to implement the Modification. The need for clarification will be assessed over the coming months and any changes required will be progressed over summer 2002.

7 IMPACT ON PARTIES AND PARTY AGENTS

The Group noted the following impact on Parties and Party Agents

7.1 Parties

The Group believes that the impact on Party systems need only be minimal because upgrading to systems to facilitate trading closer to real time would remain optional. It would be a Party decision whether or not to exploit a potential new competitive advantage, and Parties could still trade as if Gate Closure were at 3.5 hours. Moreover, the majority of Party impact assessments reported modest system costs.

7.2 Party Agents

The Group judged that the Modification could potentially impact HHDCs and HHDAs in the following manner:

- **HHDCs:** in line with BSCP550, suppliers can send in an allocation schedule to HHDCs, detailing how they wish to split metered volumes between several suppliers, by Gate Closure.
- **HHDAs:** in line with BSCP507, suppliers must send D0297 ('Notification of BM Unit Allocation') to HHDAs for validation by 20.30 each day, in reference to a 3.5 hour Gate Closure, to coincide with the first Settlement Period of the following day. Reducing Gate Closure to 1 hour would mean that the flow could be received up to 23.00 rather than 20.30.

The Group felt that both these potential impacts would affect the timescales within which HHDCs and HHDAs operate. However, although both types of Party Agent were included in all requests for impact assessments, no HHDCs or HHDAs reported that they would be impacted. To confirm that there was no perceived impact, both sets of Party Agents were contacted directly by ELEXON and they re-iterated that no impact was anticipated.

8 SUMMARY OF REPRESENTATIONS

First, two sets of impact assessments were sought from Parties – a High Level Impact Assessment (HLIA) in November 2001 and a Detailed Level Impact Assessment (DLIA) in February 2002. Second, Parties were also consulted on the impact of the Modification on the trading environment and on two potential implementation options – a step-by-step reduction in Gate Closure and reduction of Gate Closure for Volume Notifications only - in November 2001. Finally, Parties were provided with the opportunity to comment on the SO's response to the BM questionnaire. All representations received in response are attached as **Annex 2** of this report.

8.1 High Level Impact Assessment (Received 28.11.01)

The HLIAs commissioned from Parties request information on whether or not the Modification was supported, whether or not the Party would be impacted and the notice required prior to implementation of the Modification.

Seventeen HLIAs were received, the table below summarises the responses received:

ISSUE	YES	NO	NO COMMENT
Support Modification	12	3	2
Impacted	9	7	1
Notification	7	1	9

The majority of respondents, 12 out of 17, supported the Modification, three rejected it and two did not express an opinion. One respondent gave a reason for its rejection of the Modification – assessment is premature, a full year's operational data of NETA required to assess Modification.

A total of 8 respondents commented on the notification they would require prior to implementation of the Modification – 7 responded that they would require a notification period and one indicated that it would require no notification at all. Of those who indicated that they would require notification, the period requested ranged from 10 to 120 days – with the majority of respondents indicating that they would be ready by 3 months. However, none of the respondents indicated that they would be unable to implement the changes necessary to accommodate the Modification.

The Group noted the majority support for Modification and decided to reserve judgement on the impacts and notification requirements reported until DLIAs were provided after the winter period. Only one respondent reported that the Modification would have a significant impact on its systems but was unable to quantify that impact at that time.

8.2 Questionnaire Responses (Received 28.11.01)

During November 2001, Parties were consulted on the impact of the Modification on the forecasting accuracy of generation and demand, liquidity in short-term markets, as well as on the two potential implementation options identified by the Group.

Sixteen responses to the consultation questionnaire issued, representing a total of 46 BSC Parties, were received.

Parties were consulted on the impact of implementing the Modification on the forecasting accuracy of generation and demand. The table below summarises the responses received:

FORECASTING ACCURACY	INCREASE	DECREASE	NO EFFECT	NO COMMENT
Generation	12	0	4	0
Demand	9	0	4	3

The majority of respondents, 12 out of 16, believed that generation forecasting would improve with a reduction in Gate Closure – though most could not quantify the expected improvement. The most common reason given for this belief was that the exposure to uncontrollable plant failure would be shorter. Therefore, generators would be able to adjust their FPNs to reflect any plant failures occurring between 3.5 hours and 1 hour ahead of real time, unlike at present.

The majority of respondents, 9 out of 16, also believed that demand forecasting would improve with a reduction in Gate Closure – though most could not quantify the expected improvement. The most common reason given for this belief was that more accurate weather data upon which to base demand forecasts would be available. However, a large minority, 7 out of 16, either believed that the Modification would not result in a significant improvement in demand forecasting or made no comment.

The Group noted that the majority of respondents believed that one-Gate Closure would improve forecasting accuracy and that there was greater scepticism regarding potential improvements to demand forecasting. The Group shared these opinions, judging that the greatest benefit would be to generators able to adjust their FPNs and contract positions in response to plant failures occurring between 3.5 hours and 1 hour ahead of real time.

Parties were also consulted on the impact of implementing the Modification on liquidity in short-term markets. The table below summarises the responses received:

INCREASE	DECREASE	NO SIGNIFICANT EFFECT
11	1	4

The majority of respondents, 11 out of 16, believed that liquidity in short-term markets would improve as a result of the Modification – though most could not quantify the expected improvement. The main reason for this belief was that generators less exposed to imbalance risk through plant failure would feel more confident to trade and that a portion of actions previously taken in the Balancing Mechanism would move into the short-term markets.

Four respondents believed that the Modification would not significantly affect liquidity in short-term markets. The reasons given ranged from the risk of contract notification being the main inhibitor of short-term liquidity to a belief that participants would not trade any closer to

real time than at present. Others simply believed that, whilst it was unlikely that liquidity would decrease, it was not evident that it would increase significantly.

One respondent believed that the Modification would actually reduce liquidity in the short-term markets. The reason given was that imbalance prices would become more volatile and unpredictable because the quantity of Bid Offer Acceptances would be reduced. The result would be a reluctance to trade in the short-term markets.

The Group noted that the majority of respondents believed that liquidity in short-term markets would improve and that supported that opinion. First, whilst contract notification risk might remain under one-hour Gate Closure, there would still be an extra 2.5 hours to trade even if notifications in the last fifteen minutes remained minimal as at present. Second, the Group did not support the argument that increased imbalance price volatility would reduce liquidity because the pricing analysis conduct during the Assessment Procedure suggested that there would not be a significant impact on prices.

Parties were consulted on two implementation options - a **'phased approach'** (i.e. gradual reduction of Gate Closure) and a **'split approach'** (i.e. different Gate Closure for Volume Notifications and Final Physical Notifications (FPNs)). The table below summarises the responses received:

OPTION	SUPPORT	REJECT	TOTAL	FAVOURITE
3.5 hrs to 1 hr	12	4	**16**	(12)
'Phased' Approach	6	10	**16**	(2)
'Split' Approach	2	14	**16**	(0)

NB: The last column lists how many respondents indicated each option as their favourite. Two respondents rejected all three options and, hence, had no 'favoured' option – so the final column only adds up to 14 rather than 16.

The Modification as proposed, a single step reduction of Gate Closure from 3.5 hrs to 1 hour, was supported and cited as the favoured option by three-quarters of respondents. The main reasons given in support were that the single-step reduction would deliver the benefits of increased liquidity and forecasting accuracy as quickly as possible, as simply as possible, and at the lowest cost to participants possible. Most felt that a phased approach would increase the system costs and risks involved with reducing Gate Closure, whilst a split approach had no clear benefits and could lead to inconsistencies between FPNs and Volume Notifications.

The majority of respondents, 10 out of 16, rejected the 'phased' approach for the reasons cited above. However, a sizeable minority, 6 respondents, supported the approach – two of which cited it as their favoured option. The two respondents favouring a gradual reduction believed that this approach would allow market participants and the System Operator to assess the benefits and impact of reducing Gate Closure without taking the risk of a single, large, reduction. The idea being that predicting optimum Gate Closure is difficult and best established through experience.

A large majority, 14 out of 16 respondents, rejected the 'split' approach. And whilst two respondents did support it, none cited it as their favoured option. In general, the potential for inconsistent FPNs and Volume Notifications was seen to compromise the role of the System

Operator. In addition, the benefits of this approach were not clear to the majority of respondents.

On the basis of the responses received, the Modification Group decided that the Assessment Procedure should proceed with the proposed implementation approach, a single reduction in Gate Closure, as the focus of the analysis. The Group was of the opinion that neither the phased nor the split approach should be analysed any further. The phased approach would probably be more costly to implement than a single reduction and the split approach appeared to offer no benefits over the original proposal. Furthermore, neither commanded much support amongst respondents.

8.3 Comments on SO's Response to BM Questionnaire (Received 13.02.02)

Three principle issues emerged from Party responses to the SO's response to the BM questionnaire:

- Continued transparency of balancing actions taken by the SO is crucial to implementation of the Modification;
- The effect the Modification on the liquidity, transparency and prices needs to take into account all the impact on all markets (e.g. forward markets) and pricing mechanisms (e.g. BSAD); and
- An estimate of the temporary decrease in balancing efficiency and increase in balancing costs that the SO indicates would accompany implementation of the Modification is required.

The Group decided to bring to the attention of the Panel that a number of Parties had concerns that are outside the remit of the BSC.

8.4 Detailed Level Impact Assessment (Received 22.02.02)

Fifteen respondents provided DLIAs commenting on whether or not the Party in question supported the Modification, whether or not they anticipated being impacted and the notification period they would require prior to implementation of the Modification. The following table summarises the responses received:

ISSUE	YES	NO	NO COMMENT
Support Modification	10	1	4
Impacted	13	1	1
Notification	10	0	5

The majority, 10 out of 15 respondents, supported implementation of the Modification, with the most common justification being the reduced exposure of market participants to imbalance exposure – although most did not provide a rationale for their support. However, one respondent rejected the Modification on the grounds that the SO's proposals on how to procure balancing actions from plant with insufficient dynamics to operate in the BM under a one-hour Gate Closure were unclear. The respondent that this made a fully informed

evaluation of the proposal impossible. Four respondents did not comment on whether or not they supported the Modification.

The majority, 13 out of 15 of respondents, indicated that the Modification would impact them. However, of these respondents, six indicated that the impact would be minimal, one that the resulting system changes would cost £2,500, another that the resulting system changes would cost £20,000 and the rest did not quantify the impact. One respondent did not comment and one indicated that the Modification would not have an impact on them.

Finally, the majority of respondents, 10 out of 15, indicated that they would require notification prior to implementation of the Modification – the remaining 5 did not comment. Of those respondents, all but two indicated a notification requirement of three months or less. The remaining two indicated requirements of 4 months and between 3 and 6 months.

The Group noted the DLIA responses, including the continued industry support for the Modification, and concluded that an implementation date should be set that would provide Parties with 3 months notification.

9 SUMMARY OF TRANSMISSION COMPANY ANALYSIS

The Transmission Company responded to a set of questions posed to it by the Group on the impact of the Modification on the BM on the 24th January 2002 and provided a full DLIA on the 18th of February 2002.

9.1 Response to BM Questionnaire (Received 24.01.02)

The Transmission Company's response to the questionnaire on the impact of the Modification on the BM, BRL and BSAD is attached as part of **Annex 4** of this report. The main points made were as follows:

- BM will remain relevant. Whilst the actions taken in the BM will probably be shorter and more frequent, the bulk of energy and system balancing actions will still be taken in the BM.
- Currently 78% of Bid-Offer Acceptances (BOAs) are taken and delivered within a one-hour time frame. However, there are two main reasons for BOAs being taken and delivered over a longer period – long duration BOAs issued (e.g. for convenience when requirement is relatively certain hours ahead) and the dynamic constraints of certain balancing service providers (e.g. for synchronisation and de-synchronisation of generating plant). Under a one-hour Gate Closure, the SO anticipates that synchronisation/de-synchronisation will predominantly be taken outside the BM and that long duration balancing actions will be broken into a series of blocks and issued over consecutive Settlement Periods.
- No significant changes are anticipated in imbalance price levels, transparency or predictability – the cost of pre-Gate Closure actions will continue to be taken into account via BSAD. SO proposes making relevant information regarding any new types of pre-Gate Closure actions available to BMRA to ensure transparency.
- Anticipate that validity of BRL mechanism will be unchanged.
- Possibility of a 'transition period' following the reduction in Gate Closure, in which, just as in the period after NETA Go-live, the efficiency of balancing temporarily decreases and the costs of the BM temporarily increase (i.e. SO will hold greater levels of reserve and response under new operational conditions).
- Assuming 'liquidity' refers to the volume of firm feasible Bids and Offers, SO anticipates that moving to a one-hour Gate Closure will reduce liquidity by a small amount. To compensate, the ability to take pre-Gate Closure actions is currently being developed and expanded.

9.2 Detailed Level Impact Assessment (Received 18.02.02)

The Transmission Company's DLIA is attached as part of **Annex 4** of this report. The main points made were as follows:

- The 'Confidence Criteria' established by the SO prior to NETA 'Go-Live' for a reduction in Gate Closure have been met;
- Necessary changes to the SO's systems are underway;

- No security of supply issues or reduction in competition in procurement of balancing services provided ability to take pre-Gate Closure actions is retained;
- Bulk of balancing actions currently taken in the BM will continue to be taken in the BM;
- 'Beyond the Wall' issues have been resolved through changes to the Balancing Principles Statement (BPS);
- Potential for transition period in which balancing efficiency temporarily decreases and BM costs temporarily increase (i.e. uncertainty would result in greater reserves being held);
- SO proposes, to maintain transparency under a one-hour Gate Closure, to make relevant information regarding additional pre-Gate Closure balancing actions available to BMRA for publication; and
- SO has a target date of the 1st July of 2002 by which it plans to be ready for implementation. However, this target date is subject to 'Go Live' criteria having been satisfied and industry being ready. The 'Go Live' criteria are as follows:

    1. Core documentation approved.
    2. Minimum number of contracts in place with appropriate credit arrangements. Initial analysis indicates a broad requirement for contract coverage of between 25GW and 35 GW taking into account locational and dynamic considerations.
    3. Key NGC staff authorised and trained to undertake pre-gate closure actions.
    4. NGC involvement with external testing successful (i.e. participant systems proven to be working with NGC's systems).
    5. Systems resilience demonstrated.
    6. Transition process documented and agreed with industry.
    7. Contingency arrangements agreed and in place.

9.3 Recommended Implementation Date & Time (Received 28.02.02)

The Transmission Company recommends an implementation date and time of July 2nd 2002 Settlement Period 31 for the following reasons[9]:

- all necessary changes will be fully deployed and operational by July 2002;
- Monday 1st July 2002 was not recommended because Mondays characteristically have problems associated with staff availability and a more severe electricity demand profile; and
- Settlement Period 31 is the optimum time in terms of availability of appropriate staff resources, lowest anticipated trading volumes, lowest computer system utilisation, and alignment with EFA blocks.

An implementation time of Settlement Period 31 (i.e. 15.00 to 15.30) would result in the first instance of the gate closing an hour ahead at 14.00. The preceding Settlement Period 32 (i.e. 14.30 to 15.00) would have a Gate Closure 3.5 hours earlier at 11.00.

[9] A note detailing the Transmission Company's rationale for its favoured implementation date is attached as part of Annex 4 of this report.

10 PROJECT BRIEF

Insert development costs, time and timetable of Central System Changes necessary once BSC Agent impact assessment is received.

ANNEX 1 – PROPOSED TEXT TO MODIFY THE BSC

Implementation of the Modification would require the following changes to the Code:

- **Section T3.1A.1 (a):** change 'eight Settlement Periods' to 'three Settlement Periods'
- **Section T3.1A.1 (b):** change 'eight Settlement Periods' to 'three Settlement Periods'
- **Annex X-1:** under Gate Closure entry, change '3 ½ to '1'
- **Table X-2 in Annex X-2:** under 'Balancing Mechanism Window Period' entry, change '3 ½ and '4' to '1' and '1 ½ respectively

ANNEX 2 – PARTY IMPACT ASSESSMENTS & CONSULTATION RESPONSES

Please separate Consultation Responses attachment.

ANNEX 3 – BSC AGENT IMPACT ASSESSMENTS

The BSC Agent provided both a High Level Impact Assessment (HLIA) and a Detailed Level Impact Assessment (DLIA) against the proposed Modification.

ECVAA/BMRA HLIA (Received 28.11.01)

NETA Change Form

To be completed by the Originator						
Change Request ID (to be provided by the Customer) P12 Logica reference: ICR159			Service affected BMRA/ECVAA			
Change Request Name:			Reduction of Gate Closure from 3.5 hours to 1 hour			
Agreement by the customer to proceed to the next stage						
	High Level Assessment	Detailed Level Assessment	Change Quotation	Implement Change	Emergency Fix Report	Change Request under Clause 14.2 (delay)
Tick which stage is being requested	✓					
Signed by Customer Baseline Manager						
Signed by Customer Contract Manager						
Date of agreement to proceed to next stage					n/a	n/a
Date this stage to be completed by	28/11/2001					
Configuration of Service(s) (baseline affected)						
Assumed Changes (over baseline)	NETA Service Definition Baseline (V1.0)					
Priority	High/Medium/Low					
Identified by : Sandy Blows			Date Submitted: 7/11/2001			
Description of Change See attached original P12 .						
Reason for Change (benefits) See attached original P12						
Implications of not making the change See attached original P12						
Attachments/references	P12					
Competition Item Yes/No/n/a	Reasons for Competition					

If Change Request made under Clause 14.2 (delay)	Required supporting information attached

To be completed by the Service Provider			
	High Level Assessment	Detailed Level Assessment	Change Quotation
Tick which stage is being completed	✓		
Signed by Service Provider Contract Manager			
Date	23/11/2001		

Validity period of costs/prices	Change Quotation	
	Change	30 days
Does the change involve any changes to the System or Services		No
Would the undertaking of a Detailed Level Assessment or Change Quotation delay the Trigger Milestone or the Planned Go-Live Date before Go Live or any Release Date after Go Live		N/a
If Yes – specify which Milestones/Release Dates would be affected	N/a	
Impact on any Milestones of incorporation of change	N/a	

Indicative impact on resources for change incorporation	Phase of the work			
	Design	Build	Test & Trial	Operate
Labour				
Materials/3rd Party				
Impact on Service Levels	None			
Impact on IDD	No			

Price for Detailed Level Assessment		Indicative/firm
Price for Change Quotation		Indicative/firm
Price for Change	£ 22,000 (ex VAT) to develop change and perform a full set of regression tests on ECVAA. There will be no additional Operate and Maintain charge.	Indicative

Assumptions for the above Price:

- The reduction of gate closure time from 3.5 hours to 1 hour is expected to have no impact on ECVAA. This assessment assumes that this will need to be verified by conducting a full set of regression tests on ECVAA.
- Price does not include any changes identified by the regression tests. It is proposed that these will be charged under T&M arrangements and that further regression tests will be required.
- Logica will invoice in full for this change on deployment, or within one month of the change being ready for deployment
- Price does not include provision for indexation of daily fee rates with effect from 1st April 2002.
- The Service Descriptions will have been updated by ELEXON and agreed with Logica

prior to commencement of work.

- For all formal documentation which is subject to review, Logica shall provide one draft issue and a maximum of 5 working days has been allowed for ELEXON to review and comment on the updates. No allowance is included for addressing comments from ELEXON and only one iteration of all reviewed documents has been included in this price.
- Within reasonable levels, ELEXON will make available appropriate staff to assist Logica during the development of this change
- There will be no new Service Levels.
- The Maintenance charge has been estimated as a proportion of the price.
- No allowance has been made for ELEXON to witness testing.
- Testing will only be performed on our own system, with external interfaces being simulated as necessary. No allowance has been made for testing with external systems.
- The cost and durations provided in this HLIA assume that only the CP to which the estimate relates is being implemented. This has been achieved by excluding the effects of other changes.
-

If the change is to be incorporated after Go Live, is this change proposed to be a patch or release		
If patch, expected time of incorporation		
If release - what release number	Release number	
Date	Release Date	
For High Level Assessment only – is it a Detailed Level AssessmentNo	If No, estimate of time and resources required to complete	

Resources Required to undertake	Detailed Level Assessment	Change Quotation
Labour		
Materials		

Consequential amendments to base line:	
Proposed method of Change/ Work statement	The estimated time to complete the development of this change is 5 weeks.
Proposed Plan for Change	Perform a full set of regression tests on ECVAA

Has the customer has indicated this is a competitive change			No
	Service Provider Plan for competition		
	Risks/Constraints of competition		
	Service Provider plan for incorporation of change including testing		
	Documentation to be produced by Service Provider to enable competition according to plan above		
	Indicative costs of Service Provider role in competition		

For Change Notice only – to be completed by the Customer

Basis for payment

Agreed Customer Caused Delay: Yes/No **If Yes, amount of delay**	
Date Change to become effective.	**Is this to be a Release Date? Yes/No**
Other items as required under the Change Management Procedures	

ECVAA/BMRA DLIA (Received 08.03.02)

NETA Change Form	**MP/CP/TP No:** MP12
	Logica reference: ICR159
Title: Reduction Of Gate Closure From 3.5 Hours To 1 Hour	
Identified by: Damhead Creek Limited	**Date received:** 30-Jan-2002

Statement of requirement
Baseline affected: NETA Service Definition Baseline (V1.0)
Assumed changes over baseline: None
Description of Change: See attached original MP12.
Proposed solution: See attached original MP12.
Justification for Change: See attached original MP12.
Proposed changes to Service Levels: None.
Proposed changes to the Agreement: None.
Attachments/references: MP12

To be completed by Logica			
	High Level Impact Assessment	Detailed Level Impact Assessment	Quotation
Tick which stage is being completed:		✓ (Revised)	
Signed by Logica Contract Manager:			
Date:		8-March-2002	
HLIA category: Small/Medium/Large/Other		Price for DLIA:	
If this is a Quotation, are consequential modifications needed to the DLIA? Yes/No.			

Logica's proposal

Logica's understanding of the requirement:

The Gate Closure period is to be changed from 3.5 Hours to 1 Hour at 15:00hrs on 2nd July 2002 and that this change must also be part of the full release.

This change will affect the BMRA and requires changes to the hard coded value and help text. In addition, ECVAA needs regression testing for components related to Gate Closure.

Logica's proposed design solution:

Change BMRA hard coded value and help text.
Regression test of ECVAA.
If problems are found as a result of ECVAA regression testing, this will require software changes to ECVAA and additional regression testing.

Process for transition from 3.5 hours to 1 hour gate closure.

Period X is the first period for which gate closure is one hour
Period X-1 is the last period for which gate closure is 3.5 hours

At time t, 3.5 hour before the start of period X-1, the gate closes on period X-1.
Shortly after t, credit check is performed for period X-1.
At time q, 1 hour before the start of period X, the gate closes on period X.

There then arises a question over files which arrive in the period from t+30 up to q-30 where, working with 3.5 hour gate closure, changes to period X would be rejected (but gate hasn't closed for period X), but with 1 hour gate closure changes to period X-1 would be allowed (but gate has already closed for period X-1).

To avoid the uncertainty, an outage is required to start some time after the credit check for X-1 completes and before t+30 minutes, say at t+15 minutes.
The outage must end after q-30 minutes and before q, say at q-15 minutes.

X = period 31, 2 July 2002 (period runs from 15:00 - 15:30)
t = 11:00
q = 14:00
Outage from 11:15 to 13:45

The key features of the outage are

a) ftp shutdown: no files will be accepted from participants during the outage [** has knock-on impact on data from NGC **]
b) Stop credit checking during outage
c) Amend Gate Closure Duration during outage

No recovery mode credit checking is needed as when credit check runs just after q, the last period checked is X-1 and the check now due is for period X.

If ELEXON wish to enter into discussions over alternative transition strategies, or to perform testing of any such alternative, this would be charged at normal T&M rates.

Consequential changes to Project Deliverables:

BMRA

Changes to ECVAA if problems found resulting from regression testing.

Consequential impact on BSC Service Users or Other Service Providers:

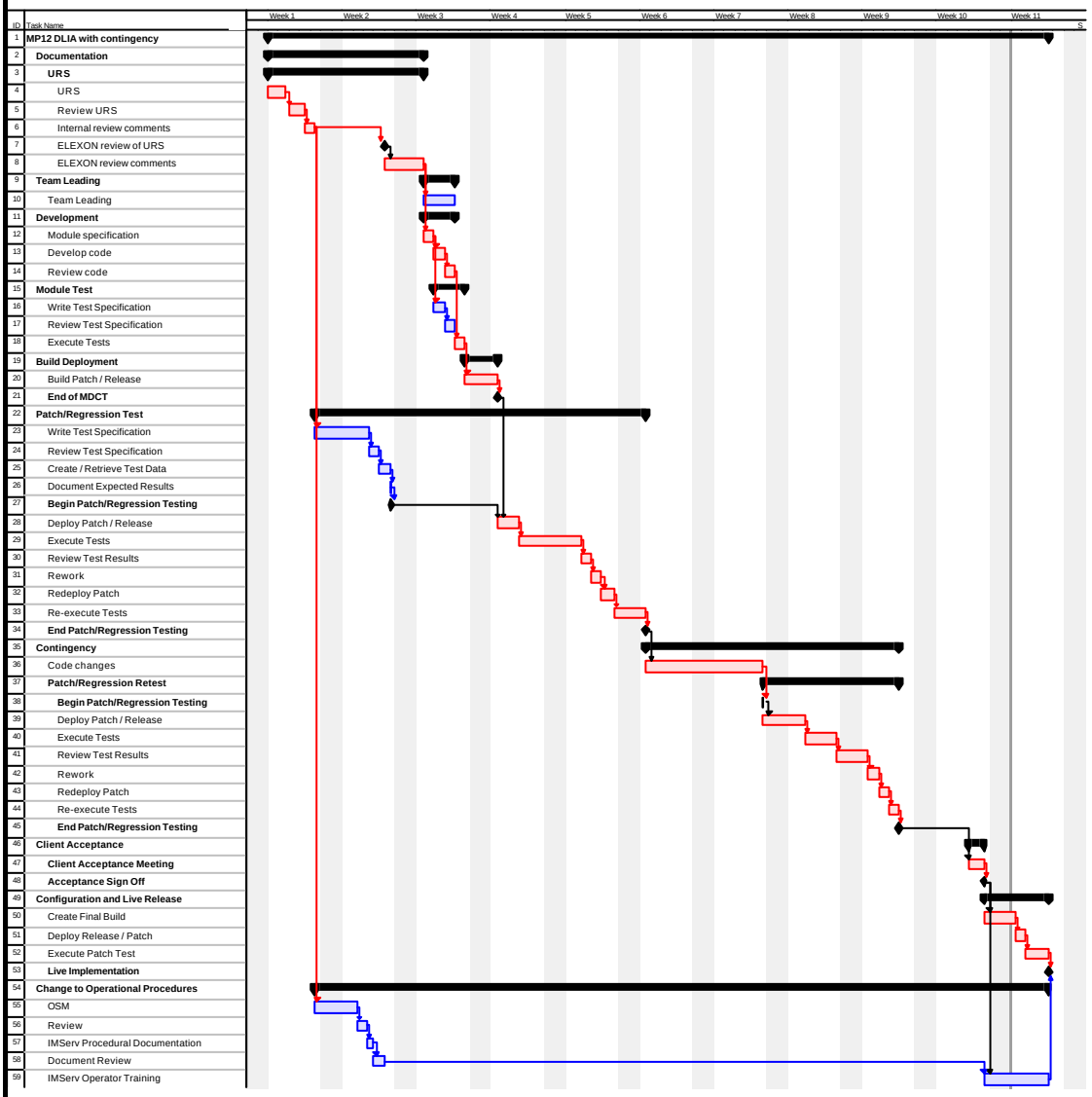
None.

Testing strategy:

1. Testing will only be performed on our own system with external interfaces being simulated as necessary. No allowance has been made for testing with external systems.
2. No allowance has been made for ELEXON to witness testing.

Management plan for developing the Change:

The following plan gives an indication of timescales for implementing the change. Tasks 35 to 45 inclusive have not been added to the cost of this change, but give contingency to the plan to allow for possible changes (ie identified as a result of ECVAA the regression testing). The timescales for this contingency are not definitive.



Project plan for developing the Change:
It is assumed that this change will take around 11 weeks to complete, although this will depend on the extent of changes required to ECVAA as a result of regression testing. If no changes are required, it would be possible to reduce this duration.

Method of deployment:

As a patch and part of Release 2	Is a planned outage required? Yes

Price for Design and Build:

Item description:	Price	Type of price:
Development and implementation.	£111,991 (ex VAT)	Fixed

Price for Operate and Maintain:

Item description:	Price	Type of price:
Operate	£0	Fixed
Maintain	£1,307 per month (ex VAT) (Excludes any further ECVAA changes that are required)	Fixed

If this is a DLIA or Quotation, is a price breakdown in the agreed format attached? Yes

Terms attaching to the offer

Validity period of offer: 30 days

Type of offer: Firm

Assumed start date:

15 April, 2002

Payment milestones:

Logica will invoice 30% on receipt of CN or authorised start of work, 50% on completion of acceptance tests, 20% on deployment or one month after completion of acceptance tests, whichever is sooner.

Document turnaround time:

5 days

Impact on Service Levels:

None

Impact on performance of the System:

Other terms:

If this is a Quotation, is a draft contract amendment attached? Yes/No

Responsibilities of ELEXON:

Assumptions made by Logica:

1. Prices include provision for indexation of daily rates at 5% with effect from 1st April 2002.
2. The Service Description will have been updated by ELEXON and agreed with Logica prior to commencement of work.
3. For all formal documentation which is subject to review, Logica shall provide one draft issue and a maximum of 5 working days has been allowed for ELEXON to review and comment on the updates. No allowance is included for addressing comments from ELEXON and only one iteration of all reviewed documents has been included in the price.
4. Within reasonable levels, ELEXON will make available appropriate staff to assist Logica during the development of this change.
5. It should be noted that the time to resolve NGC data problems between gate closure and calculation is now reduced. This increases the risk of the inability to publish valid data.
6. It is assumed that this change will be implemented as a patch on 2nd July 2002 and also incorporated into the full implementation of Release 2.

Options and alternatives:

SVAA DLIA (Received 05.03.02)

MP No.	12	Title	Reduction Of Gate Closure From 3.5 Hours To 1 Hour

BCA Name	Clive Mallinson	Assessor	SVA Agent	Date	05/03/02

Costs

Nil impact.

Timescale implications

Not applicable.

Risks

Not applicable.

Comments

The reduction of the Gate Closure from 3.5 hours to 1 hour has no material effect on the SVAA processes and procedures.

The change would require minor updates to SVA Agent internal documentation, which would be applied free of charge.

There will be a need to change section 3.2.2 of BSCP507 where the Gate Closure time is recorded as 8:30 p.m.

Recommendation

Not applicable.

Impact assessment issued by SVAA to BSCCo Baseline Management

Julian Sellen 05/03/02

ANNEX 4 – TRANSMISSION COMPANY ANALYSIS

The Transmission Company provided a response to a questionnaire on the Modification's impact on the BM on the 24th of January 2002 and DLIA on the 18th of February 2002.

BM Questionnaire Response (Received 24.01.02)

MODIFICATION PROPOSAL P12 CONSULTATION
Reduction of Gate Closure from 3.5 hours to 1 hour – Impact on the Balancing Mechanism

National Grid response to BSC P12 Modification Group Questions

Given the difference in the dynamics of generating plant, reducing Gate Closure to one hour could make certain Bids & Offers currently being submitted into the balancing Mechanism (BM) unavailable.

What impact, if any, would this have on;

(a) ***The transparency/relevance of the BM***

The Balancing Mechanism (BM) is required for residual energy balancing, minute by minute generation/demand balancing, resolving transmission constraints and delivery of Ancillary Services. Whilst the shortening of the gate closure period may impact upon the volume of energy balancing actions required, we will still be required to undertake system balancing actions to ensure that system security and frequency are maintained.

Under the current 3.5hr gate closure (GC) approximately 78% of the bids and offers accepted have been taken and delivered within a one-hour time frame.
There are two main reasons why currently we accept bids and offers with a timescale of greater than one hour:

i) When a shorter acceptance could have been made, but it is convenient for both us and the balancing service provider to accept a bid/offer for a long duration (e.g. where the requirement for the balancing action is relatively certain several hours ahead). In this case, the acceptances that exceed one-hour duration would be broken up into blocks of less than one hour and issued in consecutive hours. Thus, assuming no step change in submitted BM data and market conditions, one-hour gate closure is likely to result in a modest increase in the level of instructions within the BM window.

ii) When we need to take balancing actions that due to the dynamic constraints of the balancing service provider can not be completed within the one-hour time-scale (primarily actions to synchronise or desynchronise generating plant). These longer time-scale actions will need to be partially or fully enacted outside of the Balancing Mechanism (pre gate closure) if gate closure is reduced to 1 hour. We are currently investigating the best mechanism for achieving this.

These investigations include considering how to address any concerns regarding the transparency of these new pre gate closure actions. It is our view that details of these actions should be made available to market participants via the BMRS, in exactly the same way as bid-offer acceptances. Therefore we propose to make the relevant information available to the BMRS.

(b) The cost of balancing actions taken in the BM?

Under one-hour GC the bulk of balancing actions currently undertaken in the BM will continue to be taken in the BM. Providing our experience of a winter under NETA satisfies us that we can use pre-GC actions to balance the system securely and providing we have sufficient of the required pre-gate closure contracts in place it is our view that the system should be balanced with similar efficiency to now. However, it should be noted that based on our experience of NETA Go-live there may be a transition period in which efficiency temporarily decreases and BM costs temporarily increase. As with NETA Go-live the greater uncertainty associated with balancing the system under new conditions will lead us, initially, to hold higher levels of reserve and response.

(c) Liquidity in the BM

Assuming 'liquidity in the BM' refers to the volume of firm feasible bids and offers submitted under one-hour GC then we are of the view that liquidity will be reduced by a small amount. As noted above, we are developing our ability to take pre gate closure actions to compensate for this.

Do you have any other comments on the possible consequences of this change?

Our further comments will be contained within our response to the formal Elexon Detailed Level Impact Assessment by 22nd February 2002.

Imbalance prices are derived from the costs the System Operator (SO) incurs in ensuring that supply and demand are matched. There are two components to these costs:

- ***the cost of Bid Offer Acceptances in the BM; and***
- ***the cost of the SO's energy trades in the forward markets, these costs feed into the imbalance price calculation via the use of the six Balancing Services Adjustment Data (BSAD) parameters.***

Given that reducing Gate Closure to 1 hour could lead to an increasing proportion of balancing actions being procured via the forward markets rather than the BM, what are your views on the following:

(a) The operation and efficiency of the BM?

Under one-hour GC the majority of balancing actions that are currently taken through the BM will still be accepted through the BM. Therefore, the BM is likely to operate in a similar manner as it does at present.

The only likely changes are that the balancing actions in the BM are likely to be shorter but more frequent, while a number of actions, predominantly sync and desync instructions, will be taken pre-gate closure.

(b) The transparency/predictability of the imbalance prices if P12 is implemented?

We do not anticipate that there would be significant change to the current level of imbalance price transparency or predictability. The cost of pre-gate closure balancing actions will be taken account of via the provisions contained within the BSAD Methodology Statement.

(c) The validity of the BRL mechanism if P12 is implemented?

We feel that the validity of the BRL mechanism is unchanged by the change in gate closure time frames.

A further possible consequence of a change in the relative volume of balancing actions being taken in the forward markets and the BM, is that there could be a change in the typical prices and volumes traded in these two markets. Indeed the cost of procuring the same balancing action may change depending on when it is procured and in which market/mechanism.

Given this possibility, how do you believe P12 would effect the following:

(a) ***The cost and volume of balancing actions taken within the BM?***

This is covered in our answers above.

(b) The magnitude of the BSAD parameters that describe the costs and volumes of energy trades made in the forward markets for balancing purposes?

The BSAD values will be calculated in accordance with the prevailing BSAD Methodology Statement.

(c) ***The overall impact on imbalance prices caused by the shift in the relative proportion of balancing actions taken in the BM and energy trades take in the forward markets?***

Subject to no change in market behaviour, we expect that the impact on imbalance prices of the move to one-hour GC will be relatively minor for the reasons stated in the responses to previous questions.

Do you have any other comments on the possible consequences of this change?

Our further comments will be contained within our response to the formal Elexon Detailed Level Impact Assessment by 22nd February 2002.

DLIA (Received 18.02.02)

DLIA on BSC Modification P012

Paper by the Transmission Company

February 2002

Introduction

This paper has been prepared further to a request from Elexon for a DLIA (as described in BSC F2.6.6) on BSC Modification Proposal P012 (Reduction of Gate Closure from 3.5 hours to 1 hour) received on 7 November 2001. This paper also contains our response to some specific questions raised by the BSC Panel.

The paper is structured as follows:

- Section 2 Assessment against 'confidence criteria'
- Section 3 Impact on our business process
- Section 4 Contractual requirements
- Section 5 Impact on our IT systems
- Section 6 Impact on participants
- Section 7 Answers to specific questions
- Section 8 Summary and timescales

In addition the paper identifies a number of 'go-live' criteria that we believe are essential before one hour gate closure, as proposed by P12, can be implemented. These are presented in Appendix 3. We are progressing work internally, and will be taking forward initiatives with the industry to ensure that these criteria are met to achieve implementation of one hour gate closure in acceptable timescales.

We have developed a business process that we believe is required to support one hour gate closure. This process will require the support of market participants to ensure, in particular, that sufficient contracts are in place to allow us to undertake pre-gate BMU specific energy transactions. It is therefore important to note that the timescales discussed in this paper are conditional upon getting that support from market participants.

Section 2: Assessment against confidence criteria

We have stated that a number of 'confidence criteria' need to be met prior to a reduction in gate closure to one hour. In summary, these criteria were:

- imbalance volumes resolved in the Balancing Mechanism (BM) are low;
- IPNs and FPNs are accurate;
- sufficient bids and offers available (with short notice times);
- generator dynamics are rational; and
- the new trading arrangements have operated successfully through periods where the system is under stress.

Appendix 1 contains our detailed assessment against each of the confidence criteria.

In summary, we are happy that the criteria we specified have been broadly met, and are therefore comfortable to work with the industry to achieve one hour gate closure during this summer.

Section 3: Impact on our business process

We have considered the issues associated with system operation under one hour gate closure. We have identified that on certain occasions we will need to undertake pre-gate closure actions via the use of pre-gate BMU specific energy transactions. Our Control Room staff will perform these actions. In order to achieve this, we will need to undertake a significant exercise to ensure that the appropriate regulatory approvals are in place and that we have the relevant trained and authorised staff both to accept additional bids and offers and to undertake the additional pre-gate closure actions.

We have developed a detailed internal plan showing how this will be achieved whilst maintaining our day to day operational capability.

Section 4: Contractual requirements

As discussed in detail in Appendix 1 we have identified the requirement for additional gate closure actions to cater for the fact that certain plant will not have the appropriate dynamic parameters to participate in the BM.

Access to this plant will be gained via contractual arrangements introduced specifically for one-hour gate closure. This is over and above the current warming contracts which are used to bring plant to a notice time of 90 minutes (which is not close enough to real time to allow us to synchronise them under one hour gate closure).

We will need to ensure that the relevant contractual arrangements are in place to enable us to undertake these pre-gate BMU specific transactions and, where necessary, to preserve provision of Balancing Services. We will need a minimum number of these contracts to ensure that we have the necessary coverage. Importantly, we will also need to ensure that the necessary credit and security provisions are put in place by market participants to allow us to use these contracts.

We have discussed the contractual arrangements with market participants via an industry seminar on 12 February 2002, and are in the process of undertaking bilateral discussions to ensure that the necessary contracts are negotiated and agreed.

We have also considered the changes required to core documents (such as Grid Code, Balancing Principles Statement, Procurement Guidelines, BSAD Methodology Statement). It is our intention to progress these changes in accordance with the provisions contained with Transmission Licence Special Condition AA4 for the annual review and consultation on these documents.

Section 5: Impact on our IT Systems

We have considered the changes required to our IT systems to support one hour gate closure.

Essential changes are required to our BM systems to reflect a change in gate closure time. These changes are underway and will be available for implementation this summer.

We will also need to develop changes to increase the robustness of our existing systems that will be essential for one-hour gate closure. We will also need to develop systems to support our pre-gate closure activity to ensure that they are sufficiently robust to allow these actions to be taken right up towards gate closure.

It is likely that we will introduce further functionality to support one-hour gate closure after the initial implementation.

Section 6: Impact on participants

We are in the process of developing a detailed transition plan to ensure a smooth migration to one hour gate closure. Commitment and support from market participants will be required to ensure that this smooth transition is achieved. There will be a requirement for industry trialing of the new processes and contracts.

We are currently assuming that a business process integration test will be required, followed by an external end to end test with selected industry participants. We are not anticipating a requirement for any form of parallel running with the industry.

In order to communicate this plan to the industry, we intend to establish a focused industry team, led by a dedicated National Grid employee, and also communicate with the industry via the Operational Forum and other more specific presentations.

Discussions in the P012 Modification Group have indicated a desire to maintain current levels of transparency in a one hour gate closure world. It is our view that levels of transparency can be maintained by making details of these additional pre-gate closure actions available to market participants via the BMRS, in a similar way as for bid-offer acceptances. Therefore we propose to make the relevant information available to the BMRS for onward publication.

Section 7: Answers to specific questions

Along with the request for a DLIA, Elexon posed specific questions in relation to the impact of one hour gate closure on the management of the transmission system. Our answers to these questions are provided in Appendix 2.

Section 8: Summary and timescales

We have considered the timescales associated with implementation of one-hour gate closure. We note that in recent consultations industry participants have indicated that they require between 3 and 6 months notice from a decision to implement P012 from the Authority.

We have developed a number of 'go-live' criteria for one-hour gate closure (attached in Appendix 3), and it is our view that, subject to the 'go-live' criteria being satisfied, we will be ready for implementation this summer. We are therefore planning and working to a target implementation date of 1 July 2002, subject to industry readiness and the achievement of all relevant criteria.

APPENDIX 1

Winter experience under NETA

Prior to NETA Go-live we stated that a number of confidence criteria would need to be met before reducing the gate closure period. In summary these criteria were:

- imbalance volumes resolved in the BM are low;
- IPNs and FPNs are accurate;
- sufficient bids and offers available (with short notice times);

- generator dynamics are rational; and

- the new trading arrangements have operated successfully through periods where the system is under stress. We indicated that we would require at least 6 months operational experience, and preferably a full year before the issues associated with the reduction of the gate closure period could be adequately assessed. Consistent with these criteria, following the submission of BSC modification P12 (reduction of gate closure to 1hr) we indicated that it would require sufficient winter operational experience to test NETA operation against the above criteria.

Our comments against these criteria are detailed below.

Experience against Criteria

General

We have operated the system successfully during the winter period under NETA and are comfortable that the majority of the above criteria have been met. We have substantial experience in operating a 'long' system but have also experienced system operation during periods of significant MW shortfall in the BM. We have successfully managed the system during the highest demands ever experienced on the National Grid system. However it should be noted that we have yet to test NETA under a period of extreme system stress (e.g. significant plant loss, multiple circuit trippings).

Criteria 1 - Imbalance volumes resolved in the Balancing Mechanism are low

Under NETA we have resolved BM imbalance positions ranging between 3200MW short and 4600MW long. However the BM has been generally long since go-live. This is reflected in the period average BM length of 800MW long. This general trend has been consistent in both winter and summer periods with the summer average length being 750MW long and the winter average, so far, being 970MW long. These volume levels are low enough to enable one hour gate closure to be achieved. 78% of the bids and offers taken to resolve this imbalance have been instructed and delivered within a one hour window. Assuming no step change in market conditions, one-hour gate closure is likely to result in only a modest increase in the level of instructions within the BM window. However during those times when the BM was short (by up to 2500MW e.g. following the placing of Enron into administration) the volume of bid-offer acceptances increased, although no major issues have been identified with the underlying systems or business processes.

Criteria 2 - IPNs and FPNs are accurate

Good quality information is a key requirement in order to enable us to take the required balancing action effectively both in the BM and via forward trades and contracts. Since Go-Live, on average less than 30% of generator PNs are changed between the IPN (day ahead) and FPN (GC) stage. The average impact (in terms of total net notified position) is generally less than 100MW. Thus, given our experience to date, we believe that the quality of submitted via physical notifications is accurate enough to inform our balancing actions. We

will manage the uncertainty created by potential PN inaccuracies as part of our normal business process (e.g. by holding reserve).

Criteria 3 - Sufficient bids and offers are being made available (with short notice times)

Typically, some 70% of available offers in the BM can be delivered within 60 minutes and therefore sufficient volume is available for the majority of balancing actions. However, operational experience to date has demonstrated that, on occasion we are required to take balancing actions that due to the dynamic constraints of the balancing service provider can not be completed within the one hour time-scale (primarily actions to synchronise or desynchronise generating plant). These longer time-scale actions will need to be partially or fully enacted outside of the BM (pre-gate closure) if gate closure is reduced to one hour. Currently we successfully use the balancing service of warming and hot standby to synchronise generating plant and to make sure there is sufficient offer volume available within the BM. Warming contracts are used to bring the notice to synchronise down to 90 minutes, clearly this still leaves us outside of BM timescales in a one hour gate closure world. Therefore the new balancing service contract form that we have proposed will address the issue of physical dynamic limits on generation plant. As long as we retain effective pre-gate closure action to achieve the above then we are confident that we can move to a shorter gate closure period.

Criteria 4 - Generator dynamics are rational

During the summer and the winter periods submitted generator dynamics have caused us no significant operational concerns. The 'beyond the wall' issues are currently being resolved with changes to the Balancing Principles Statement (BPS). Grid Code modifications to clarify the changes made to the BPS are currently being considered.

Criteria 5 - The new trading arrangements have operated successfully through periods where the system is under stress

We have operated the NETA systems during high winter demands and during the period Enron was placed into administration. However, we have yet to operate the system under times of extreme system stress (e.g. large volumes of plant loss, multiple circuit tripping). However, on the basis of market experience to date, there is no evidence to suggest that sufficient balancing actions would not be available to us should such circumstances arise under one hour gate closure.

APPENDIX 2

Specific questions

To assist assessment of P12 the following specific questions were supplied by the BSC Panel to aid in the assessment process.

(a) Would security of supply be affected? (i.e. ability of SO to balance the market)

The Balancing Mechanism (BM) is required for residual energy balancing, minute by minute generation/demand balancing, resolving transmission constraints and delivery of Ancillary Services. Whilst the shortening of the gate closure period may impact upon the volume of energy balancing actions required, we will still be required to undertake system balancing actions to ensure that system security and frequency are maintained. Under the current 3.5hr gate closure approximately 78% of the bids and offers accepted have been taken and delivered within a one hour time frame. There are two main reasons why currently we accept bids and offers with a timescale of greater than one hour:

i) When a shorter acceptance could have been made, but it is convenient for both us and the balancing service provider to accept a bid/offer for a long duration (e.g. where the requirement for the balancing action is relatively certain several hours ahead). In this case, the acceptances that exceed one hour duration will be broken up into blocks of less than one hour and issued in consecutive hours. Thus, assuming no step change in submitted BM data and market conditions, one hour gate closure is likely to result in a modest increase in the level of instructions within the BM window.

ii) When we need to take balancing actions that due to the dynamic constraints of the balancing service provider can not be completed within the one hour time-scale (primarily actions to synchronise or desynchronise generating plant). These longer time-scale actions will need to be partially or fully enacted outside of the BM (pre-gate closure) if gate closure is reduced to one hour. The mechanism for achieving this is via our proposed pre-gate closure contracts.

As long as we retain the ability to take pre-gate closure action through pregate closure contracts we do not envisage any security of supply issues arising in association with the move to one hour gate closure.

(b) Would competition in the BM be affected? (i.e. it is possible that fewer generators would have the necessary dynamics to participate in a shorter BM, which could thereby reduce competition and increase prices in the BM)

We are of the view that the volume of firm feasible bids and offers submitted to the BM will be reduced by a small amount given the reduction to one hour gate closure. This in conjunction with the dynamics of generators may require us to take some balancing actions outside of the BM via balancing services contracts. As long as we retain the ability to take action outside gate closure via our proposed pre-gate closure contracts and are able to negotiate these contracts with a sufficient number of participants then we see no reason why competition in the procurement of balancing services will be reduced with one hour gate closure.

(c) Would the cost of balancing the system be affected?

It is likely that we will take a larger proportion of balancing actions outside the BM. However, under one hour gate closure the bulk of balancing actions currently undertaken in the BM will continue to be taken in the BM. For certain balancing actions, limited by dynamic constraints, new types of balancing services contracts would have to be devised and then procured (i.e. additional contracting mechanisms would be required to enable services to be procured prior to the balancing period). Providing we have sufficient of these necessary pre-gate closure contracts in place it is our view that the system can be balanced with similar efficiency to now. However, it should be noted that based on our experience of NETA Go-live there may be a transition period in which efficiency temporarily decreases and BM costs temporarily increase. As with NETA Go-live the greater uncertainty associated with balancing the system under new conditions will lead us, initially, to hold higher levels of reserve. In assessing the ongoing requirement for greater reserve levels we will be monitoring security levels.

(d) Would the SO's ability to comply with operational standards, and the cost of such compliance, be affected? (i.e. compliance with operational standards, such as frequency and voltage standards, is crucial to the quality of supply)

As in our answer to (a) as long as we retain the ability to take pre-gate closure action through pre-gate closure contracts we do not envisage any security of supply issues arising in association with the move to one hour gate closure.

(e) Would "Beyond the Wall" issues be acerbated? (i.e. a one hour gate closure has the potential to result in more BM participants reaching the "Wall", because the dynamics to operate within a one hour gate closure are more demanding)

We believe that the beyond the wall issues have now been resolved with changes to the Balancing Principles Statement (BPS). Grid Code modifications to clarify the changes made to the BPS are currently being considered.

APPENDIX 3

One hour gate closure go-live criteria

We have developed a number of criteria that need to be met prior to implementation of one hour gate closure. These are listed below. Over the coming months we will be working with the industry to ensure that the criteria have been met to allow us to progress towards the timely implementation of one hour gate closure.

Necessary criteria for 'go-live':

- Core documentation approved

- Minimum number of contracts in place with appropriate credit arrangements. Our initial analysis indicates a broad requirement for contract coverage of between 25GWand 35GW taking into account 'locational' and dynamic considerations

- Key National Grid staff authorised and trained to undertake pre-gate closure action

- National Grid involvement with external testing successful (i.e. participant systems proven to be working with National Grid's systems)

- Systems resilience demonstrated

- Transition process documented and agreed with the industry

- Contingency arrangements agreed and in place

Recommended Implementation Date & Time (Received 28.02.02)

Date and Time of P12 1HGC Implementation
(Filenote by David Phillips, NG Operations and Trading)

28th February 2002

The optimum time for change over has been based on the minimising impact of the change, and takes into account:

- Shift team considerations
- Availability of IS staff resources
- Other staff availability
- Computer system utilisation (which peaks sharply at 11:00 hrs / defaulting time)
- Alignment with EFA blocks.
- Minimising anticipated trading volumes

A time of 14:00 hrs has been selected, as it most closely satisfies the criteria above.

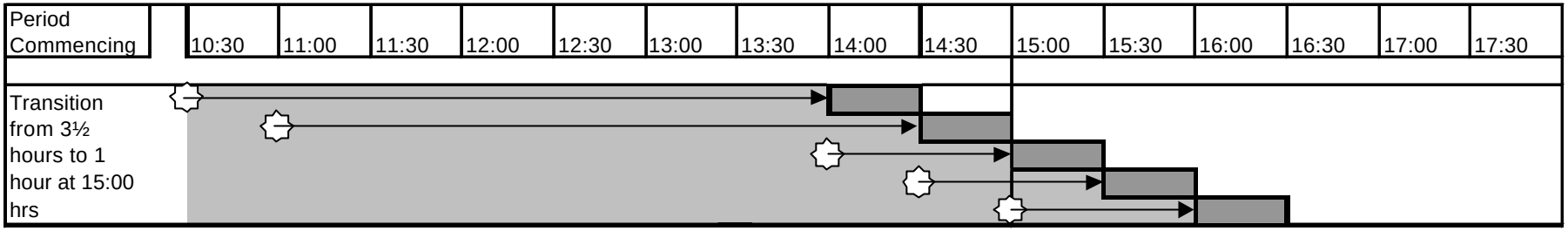
Monday 1st was also considered but a Monday has problems associated with general staff availability and also a more severe electricity demand profile. 15:00 was chosen because it aligns to the EFA block and is a relatively benign period of the day for electricity demand, as opposed to 11:00.

Transition cut over process

When the Gate Closure period is reduced from the present value, there will be half-hour spot times at which no Gate Closure will occur.

- Gate Closure period changes from 3½hours to 1 hour for all periods from 15:00 onwards (see diagram overleaf)
- For the Settlement Period commencing 14:00 1st July, Gate Closure will occur 3½hours earlier at 10:30.
- For the Settlement Period commencing 14:30, Gate Closure will occur 3½ hours earlier at 11:00.
- For the Settlement Period commencing 15:00, Gate Closure will occur 1 hour earlier at 14:00.

Gate Closure will thereafter occur regularly on each half-hour boundary. Thus, for the half-hour spot times 11:30, 12:00, 12:30, 13:00 and 13:30 there will be no Settlement Periods for which Gate Closure occurs.



Key

Settlement Period Duration 0:30 hours

Period for which Gate Closure has occurred

Period for which Gate Closure is occuring

Time of Gate Closure for a period

Indicates period for which this Gate Closure applies

ANNEX 5 – ASSESSMENT CRITERIA

Criterion 1: Impact on Trading

Central to assessment of the Modification is its impact on trading. Indeed, the Proposer believes that the improved forecasting accuracy and reduced imbalance risk that will result will increase liquidity in short-term markets. On the other hand, concerns have been expressed that shortening the Balancing Mechanism Window Period might increase the absolute level and volatility of energy imbalance prices by reducing the plant able to participate in the BM. To assess the impact on trading, answers to three closely related questions will be sought.

(a) *Would the accuracy of generation and demand forecasting at Gate Closure improve?* Greater forecasting accuracy would, all other things being equal, enable contracts to better match actual production and consumption and therefore, potentially reduce the imbalance risk faced by market participants.

(b) *Would market liquidity improve?* Taking advantage of any improvement in forecasting accuracy would require sufficient liquidity in short-term markets so that trading against the improved information is possible.

(c) *What would be the impact on energy imbalance prices?*[10] More volatile and/or extreme imbalance prices would act to increase the imbalance risk faced by participants – and counteract any risk reduction gained through improved forecasting accuracy.

The analysis will be quantitative and based on historical data generated under the current BSC.

Criterion 2: Impact on System Management

A crucial consideration in the assessment of this Modification is its potential impact on the management of the transmission system. Currently, the System Operator (SO) uses the BM for the majority of its balancing actions – reducing the period within which the BM is open could have an impact on the cost of balancing actions and the mechanisms through which those actions are taken. To assess the impact on system management, the SO will be asked to investigate and report on the following issues:

(a) *Would security of supply be affected?* Any improvement in the trading environment should not come at the expense of security of supply (i.e. ability of SO to balance the market).

(b) *Would the competition in the BM be affected?* It is possible that fewer generators would have the necessary dynamics to participate in a shorter BM, which could thereby reduce competition and increase prices in the BM.

(c) *Would the cost of balancing the system be affected?* There is a strong possibility that the SO would take a larger proportion of balancing actions outside the BM. New types of balancing services contracts would have to be devised and then procured (i.e. additional contracting mechanisms would be required to enable services to be procured prior to the balancing period).

(d) *Would the SO's ability to comply with operational standards, and the cost of such compliance, be affected?* Compliance with operational standards, such as frequency and voltage standards, is crucial to the quality of supply.

[10] Analysis of the behaviour of imbalance prices will be based on the algorithm as modified by Modification Proposal P18a.

(e) *Would "Beyond the Wall" issues be acerbated?* A one-hour Gate Closure has the potential to result in more BM participants hitting the "Wall", because the dynamics to operate within a one-hour Gate Closure are more demanding.

These questions will be posed to the Transmission Company as part of the impact assessment commissioned from them.

Criterion 3: Cost-Benefit Analysis

The final criterion against which the Modification will be assessed is value for money. The various costs and benefits associated with implementation of the Modification will be established through the foregoing analysis, impact assessments and consultation with relevant parties. The Group identified the following potential costs:

(a) Cost 1: changes to Party systems

(b) Cost 2: changes to Transmission Company systems

(c) Cost 3: development of new balancing services contracts

(d) Cost 4: changes to Central Service Agent systems

(e) Cost 5: changes to ELEXON systems

The Group identified the following potential benefits:

(a) greater forecasting accuracy

(b) increased market liquidity

(c) reduced imbalance risk

These potential benefits will be difficult to quantify and opinions will be sought through consultation to complement the findings of the analysis produced for the first criterion (i.e. "Impact on Trading").

ANNEX 6 – MODIFICATION GROUP MEMBERSHIP

This Assessment Report has been prepared by the P12 Modification Group. The Membership of the Group was as follows:

MEMBER	ORGANISATION
Chris Rowell	ELEXON (Chairman)
Roger Salomone	ELEXON (Lead Analyst)
Tony Doherty	Ofgem
John Greasley	National Grid Company
Andrew Murray	Damhead Creek (Proposer)
Martyn Hunter	St Clements Services
Stephen Chapman	Innogy
Chris Price	Powergen
Chris Leeds	Entergy
Libby Glazebrook	Edison Mission
Danielle Lane	British Gas Trading
Rekha Patel	Dynergy
Ian Mullins	BP Gas & Power

ANNEX 7 – MODIFICATION PROPOSAL

Modification Proposal	**MP No: 12** *(mandatory by BSCCo)*

Title of Modification Proposal *(mandatory by proposer)***:**

Reduction Of Gate Closure From 3.5 Hours To 1 Hour

Submission Date *(mandatory by proposer)***:** 09 May 2001

Description of Proposed Modification *(mandatory by proposer)***:**

Early experience of imbalance prices in the Balancing Mechanism (BM) has highlighted the close to real time nature of the System Operator's (SO) trades for balancing purposes. In the light of this experience the rationale for a 3.5 hour Gate Closure period is not valid and this modification seeks to reduce the Gate Closure period to 1 hour.

Description of Issue or Defect that Modification Proposal Seeks to Address *(mandatory by proposer)***:**

The Gate Closure period was set as a trade off between the wish to see bilateral contracting continue to as close to real time as possible whilst still allowing the SO sufficient time to carry out its balancing functions. Originally a 4 hour Gate Closure period was set on the basis that a typical coal-fired generation set would require around 90 minutes to synchronise with the grid (providing it was warm), and a further 90 minutes to increase its output to a reasonable level. This Gate Closure period was subsequently reduced to 3.5 hours, with the intention that it would be shortened after six months with possible further reductions as deemed practicable.

The SO's demonstrated preference for 'just-in-time' balancing action runs counter to the rationale originally used to justify the Gate Closure period, and further it is stifling competition in the generation and supply of electricity. It is, therefore, proposed that the Gate Closure period be reduced from 3.5 hours to 1 hour as this is believed to be in the best interests of market participants.

Impact on Code *(optional by proposer)***:**

None envisaged.

Impact on Core Industry Documents *(optional by proposer)***:**

None envisaged.

Impact on BSC Systems and Other Relevant Systems and Processes Used by Parties *(optional by proposer)***:**

The impact on market participants' systems should be minimal given that it has always been anticipated that the duration of the BM would shorten over time.

Impact on other Configurable Items *(optional by proposer)***:**

See above.

Modification Proposal	**MP No: 12** *(mandatory by BSCCo)*

Justification for Proposed Modification with Reference to Applicable BSC Objectives *(mandatory by proposer)***:**

The SO is incentivised to take balancing actions close to real time in order to minimise its exposure to the buy-sell spread in the BM. Further, it has been stated that "demand cannot be forecast to within 500MW beyond half an hour ahead" [NGC, Operational Forum, 27 April 2001]. For these reasons, the SO is not utilising the full 3.5 hour BM period to balance the system, and as a result is overlooking significantly cheaper BM bids and offers made by alternative flexible plant. The unnecessarily long BM period is taking a toll upon industry participants and ultimately will raise the price of electricity to end consumers.

The extreme volatility in BM buy and sell prices has meant that market participants finding themselves out of balance, for whatever reason, risk facing potentially significant imbalance charges, which in some cases may be sufficient to drive them out of business. While the extreme BM prices may provide a significant incentive for participants to balance their positions, the length of the BM period significantly limits a participant's ability to take balancing actions for uncontrollable changes in demand or generating capability. This creates a significant risk for participants with a resultant increase in costs. These costs will be reflected in price levels and may well explain recent price rises. An example of an added cost is the tendency for suppliers to over contract and generators to under contract in order to avoid exposure to imbalance. This tendency affects the supply/demand balance in a manner that puts upward pressure on prices. If parties were able to adjust their contract positions closer to real time, it would reduce participants' imbalance risk and therefore reduce the need to mitigate the risk by over/under contracting.

The imbalance risk is also having a negative impact on liquidity in the short-term markets. Trading companies who speculate in the market and companies who actively trade around physical positions have been reluctant to trade in the short term markets. The length of the BM period is a contributing element to the magnitude of the imbalance risk, and to the extent that the period is reduced liquidity should improve. Market liquidity is a very important element in the promotion of effective competition within the electricity market.

In summary, the SO's 'just-in-time' balancing action runs counter to the rationale originally used to justify the gate closure period, and further it is stifling competition in the generation and supply of electricity. In accordance with BSC objectives, reducing the gate closure period from 3.5 hours to 1 hour will act to further promote effective competition in the generation and supply, and sale and purchase of electricity.

Details of Proposer:

Name: Andrew Murray

Organisation: Damhead Creek Limited

Telephone Number: 020 7337 8328

Email Address: amurr90@entergy.com

Details of Proposer's Representative:

Name: Andrew Murray

Organisation: Damhead Creek Limited

Telephone Number: 020 7337 8328

Email Address: amurr90@entergy.com

Modification Proposal	**MP No: 12** *(mandatory by BSCCo)*

Details of Representative's Alternate:

Name: Chris Leeds

Organisation: Axia Energy Europe

Telephone Number: 020 7337 8416

Email Address: cleed90@entergy.com

Attachments: NO

If Yes, Title and No. of Pages of Each Attachment:

ANNEX 8 – SYSTEM OPERATOR PGB TRANSACTION CONSULTATION

The SO is currently in the process of consulting on the nature of its proposed PGB Transactions, and the necessary changes to the related documentation, under the relevant governance structures. Changes will also be required to the Balancing Principles Statement ('BPS') and the Procurement Guidelines. Both of these documents are established via Special Condition AA4 of the Transmission Licence. The consultation timescales for the proposed changes to these documents are as follows:

MILESTONE	DATE
Consultation Issued to Industry	27th February 2002
Deadline for Responses	13th March 2002
Reports Submitted to Authority	19th March 2002

In addition, the SO is consulting industry on the contract details of the proposed PGB Transactions after a having held an introductory seminar in February 2002.