April 2001

Correction of price spikes in the Balancing Mechanism

Decision Document

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1. Introduction

Purpose of this document

1.1 This document sets out Ofgem's decision, and the reasons for its decision, on the National Grid Company plc's (NGC's) proposed revisions to its Balancing Service Adjustment Data (BSAD) Methodology Statement and the proposed modification (P3) to the Balancing and Settlement Code (BSC). The proposed revisions sought to address anomalous price spikes that have been occurring in some Imbalance Cash-out Prices in the early days of the new electricity trading arrangements (NETA), which were introduced on 27 March 2001.

Background and the process so far

1.2 On 3 April 2001 Ofgem issued a statement explaining that there had been a number of anomalous spikes in Imbalance Cash-out Prices in the first week of NETA. The statement identified two problems:

- The cash-out prices displayed on the Balancing Mechanism Reporting System (BMRS) are not properly reflecting the calculation required when the default price mechanism is invoked.
- The cash-out algorithm includes a term for NGC to apply its pre-contracted balancing services. This term may be a relatively small amount of money, but when occasionally divided over an even smaller volume of accepted Offers it creates an artificially high cash-out price.

1.3 The statement noted that the first problem was being dealt with by ELEXON and that it would not affect initial imbalance settlement figures. It was noted that the second issue required a modification to NGC's BSAD Methodology Statement and/ or the BSC.

1.4 The Authority can accept or reject any proposed modification to the BSC and can reject any proposed revision to NGC's BSAD Methodology Statement.

1.5 An urgent proposed modification to the BSC was consulted on by ELEXON and NGC developed and consulted on changes to its BSAD Methodology Statement.

Ofgem agreed to a short consultation period for the proposed modification to the BSC and for NGC's proposed revisions to its BSAD Methodology Statement, to ensure a rapid resolution of this issue. Ofgem's statement on 3 April 2001 also said that if changes to the BSC and/or the BSAD Methodology are agreed it is proposed that they have effect from 00.00 hours on 5 April 2001.

1.6 On 5 April 2001 the BSC Panel made the recommendation to Ofgem that no modifications to the BSC was required, on the basis that the issue would be addressed by amending NGC's BSAD Methodology.

1.7 After consulting on the proposed revisions to its BSAD Methodology Statement, NGC made two alternative recommendations. In the first revision option fees were removed from the BSAD calculation. In the second revision option fees remained and a price adjuster was included. The implementation of the revisions to the BSAD methodology would take effect from 00.00 hours on 5 April unless NGC was otherwise directed by the Authority.

The Authority's decision

1.8 The Authority agrees with the BSC Panel recommendation, and has notified NGC, that no modifications should be made to the BSC. Instead the Authority considers that the BSAD Methodology Statement should be revised. The Authority has directed NGC not to make the revision to the BSAD Methodology Statement that removes option fees. The Authority considers that the addition of a price adjuster to the calculation of BSAD better facilitates the relevant objectives of the BSC. The change to the calculation of BSAD took effect for the purposes of settlement at 00.00 hours on 5 April 2001.

Outline of this document

1.9 Chapter 2 gives background information. Chapter 3 describes the current BSAD Methodology Statement and the problems that have been identified with it. Chapter 4 summarises respondents' views to NGC's consultation on possible BSAD Methodology Statement revisions, and to ELEXON's consultation on possible modifications to the BSC. Chapter 5 outlines Ofgem's views and Chapter 6 sets out the Authority's decision.

2. Background

The regulatory and legislative framework

2.1 The Electricity Act 1989 set out the statutory framework for the regulation of the electricity industry, including providing for the appointment of the Director General of Electricity Supply (DGES). The Act also provided for the licensing of supply, generation and the transmission of electricity. The Utilities Act 2000, which received Royal Assent on 28 July 2000, replaced the DGES (and the Director General of Gas Supply (DGGS) established by the Gas Act 1986) with the Gas and Electricity Markets Authority (the Authority). The Authority was created on 20 December 2000. From that date the functions of the DGES (and DGGS) transferred to, and in the future will be exercisable by, the Authority. The duties of the Authority are set out in the new sections 3A-C of the Electricity Act 1989 (as amended). The duties include a new primary objective and a range of other duties.

2.2 NGC is the sole possessor of a Transmission Licence to transmit electricity granted under section 6(1) of the Electricity Act in England and Wales. In addition to its obligations under the Electricity Act, NGC has a number of duties under its Transmission Licence including to operate an efficient, co-ordinated and economical system of transmission in England and Wales.

Balancing Services Adjustment Data Methodology Statement

2.3 On 20 March 2001, in accordance with Condition 7B.6(b)(i) of its Transmission Licence, NGC prepared a BSAD Methodology Statement, which the Authority approved on 21 March 2001.

2.4 NGC may revise the BSAD Methodology from time to time in accordance with the provisions of Condition 7B.6(c) of its Transmission Licence. Condition 7B.6(c) requires, amongst other things, for NGC to submit a report to the Authority which sets out the revisions originally proposed by NGC, any representations made by BSC Parties on NGC's proposed revisions and any change to the revisions. By virtue of Condition 7B.6(d)(iii), the Authority may direct NGC to comply with such other requirements in respect of the revision of the BSAD Methodology as may be specified in the Direction.

The Balancing and Settlement Code

2.5 NGC is required by Condition 7A of its Transmission Licence to have a BSC in force at all times. The BSC sets out the terms of the balancing and settlement arrangements which include arrangements for:

- making, accepting and settling Offers to increase or decrease electricity delivered to, or taken off, the total system (NGC's transmission system and the distribution systems) to assist NGC in balancing the system; and
- determining and settling imbalances and certain other costs associated with operating and balancing the transmission system.

2.6 Holders of licences granted under section 6 of the Electricity Act are required to comply with the BSC and the parties to the BSC Framework Agreement of August 2000, are also required to comply with the BSC.

2.7 A panel has been charged with overseeing the management, modification and implementation of the BSC rules. The Panel Chairman was appointed by the DGES. The Chairman of the Panel is also the Chairman of the Balancing and Settlement Code Company (ELEXON).[1] ELEXON's main function is to provide and procure facilities, resources and services for the proper, effective and efficient implementation of the BSC. The Panel has representatives from the industry, consumers and NGC as well as independent members.

2.8 The details of the modification procedure are contained in section F of the BSC. The modification procedure is designed to ensure that the process is as efficient as possible, including ensuring that a range of interested parties can propose modifications and have the opportunity to comment on modification proposals.

Proposed changes to NGC's BSAD Methodology Statement and to the BSC

BSAD Methodology Statement

2.9 Two revisions to the BSAD Methodology Statement were proposed by NGC. Option A removed option fees from the calculation of BSAD. Option B removes

[1] The BSCCo was named ELEXON Limited on 7 June 2000.

Reserve Option Fees from the calculation of Buy Cost Adjustment (BCA) and Sell Cost Adjustment (SCA). Two new variables (Buy Price Adjuster and Sell Price Adjuster) were introduced. Full details of the two options are set out in Appendix 1.

2.10 On 3 April 2001 Ofgem directed NGC to reduce the period of consultation on the proposed revisions from the usual 28 days to one working day, due to the urgent need for a solution. A copy of this direction is shown in Appendix 2.

2.11 NGC's proposed revisions were circulated to BSC parties and placed on the NGC web site on 4 April 2001. On 5 April 2001 Ofgem directed NGC that any revisions to the BSAD Methodology Statement should take effectat 00.00 hours on 5 April 2001, unless Ofgem made a direction vetoing the proposed revisions by 17.00 on 6 April 2001 or if later, five hours after the Authority had received NGC's report.

2.12 NGC submitted a report to Ofgem on 10 April 2001 that set out respondents' views and NGC's recommendation.

Balancing and Settlement Code

2.13 On 27 March 2001, a modification was proposed for the "Correction of price spikes generated by de minimis NGC purchases" (Modification Number P3). Modification Number P3 was raised in order to suggest changes to the BSC that would prevent the occurrence of price spikes when option fees paid by NGC for provision reserve are included in the numerator of the energy imbalance price calculations, but there is a very small volume of accepted Offers (or Bids) in such periods. Modification Number 3 proposed to limit the contribution of the option fees to System Buy Price to 25% of the price.

2.14 On 30 March the BSC Panel Chairman was able to obtain the views of seven Panel Members who supported the recommendation that the Modification Proposal be treated as urgent. The Authority agreed with the Panel and the modification was granted urgent status. The Authority also agreed the process and timescale.

2.15 Having obtained the necessary confirmations that the Modification Proposal should be treated as urgent, an initial assessment was prepared for consideration by a Modifications Group. The initial assessment was presented to the Modifications Group on 3 April 2001 and considered by the Group. The Group comprised ELEXON technical experts, NGC representatives, Ofgem representatives and industry experts.

2.16 Following discussion at the Modifications Group meeting, an Urgent Modification Report was drafted and issued for consultation on 3 April 2001. ELEXON issued the panel's recommendations to Ofgem on 5 April 2001.

3. BSAD Methodology Statement and the problem identified

3.1 This section explains NGC's BSAD Methodology Statement and the problems which have been occurring in Imbalance Cash-out Prices.

The Purpose of BSAD

3.2 Balancing Services are defined in general terms in NGC's Transmission Licence. In accordance with Licence Condition 7B of the Transmission Licence NGC is required to establish Procurement Guidelines. The purpose of the Procurement Guidelines is to set out the kinds of Balancing Services that NGC may be interested in purchasing, together with the mechanisms envisaged for purchasing such Balancing Services.

3.3 The purpose of the BSAD Methodology statement "is to set out the information on relevant Balancing Services that will be taken into account under the Balancing and Settlement Code for the purposes of determining Imbalance Price(s)"[2]. BSAD covers a subset of the Balancing Services that NGC intends to procure. Specifically, the BSAD Methodology Statement attempts to target to energy imbalance prices the costs of contracts that can be considered to be energy balancing in nature rather than system balancing.

Basis of calculation

3.4 The BSAD is specified in Section Q, Paragraph 6.3 of the BSC and includes:

- BCA – Buy Price Cost Adjustment;
- SCA – Sell Price Cost Adjustment;
- BVA – Buy Price Volume Adjustment; and
- SVA – Sell Price Volume Adjustment.

[2] "Balancing Services Adjustment Data Methodology Statement", 20 March 2001.

3.5 This data is used in the calculation of Energy Imbalance Prices, System Buy Price (SBP) and the System Sell Price (SSP) as specified in Section T, Paragraphs 4.4.5 and 4.4.6 of the BSC.

3.6 The variables associated with BSAD are as follows:

- BCA = Aggregated standing reserve option fees + Aggregated Firm regulating reserve option fees + Aggregated Energy Contract Purchases;
- SCA = Aggregated Energy Contract Sales;
- BVA = Aggregated volume of relevant standing reserve contracts + Aggregated volume of relevant firm regulating reserve contracts + Energy Contract Purchases;
- SVA = Aggregated volume of Energy Contract Sales.

3.7 These variables are then used in the calculation of SBP and SSP in accordance with Paragraphs 4.4.5 and 4.4.6 of the BSC.

Balancing Services contract costs for inclusion in the BSAD

3.8 The following relevant energy Balancing Services contracts are currently included in the calculation of the BSAD:

- **Standing Reserve** – In these contracts NGC will pay option fees (either £/hr or £/MWh) for service availability during specific half-hour periods. Utilisation payments for participants within the Balancing Mechanism (BM) will be dealt with automatically via the BM and will feed into the energy imbalance price calculation via the acceptance of an Offer. Utilisation payments for non-BM participants will be made via a separate Balancing Services contract payment. The calculation of BSAD will include the option fees paid to all service providers.
- **Regulating Reserve** – NGC will pay option fees for firm provision of regulating reserve with any utilisation fees being fixed via agreement of BM Offers. Standing and Firm Regulating Reserve option payments for increasing generation or reducing demand will feed into the calculation of the BCA.

- **Forward energy contracts** – Both the costs and volumes of any forward energy contracts will be included in the calculations as follows:

  – costs and volumes of any energy purchases feed into BCA and BVA respectively; and

  – costs and volumes of any energy sales feed into SCA and SVA respectively.

3.9 For the avoidance of doubt, BSAD will only include contracts required for energy balancing purposes. Contracts for transport related reasons are specifically excluded from BSAD. All costs and volumes will be targeted to the half-hours in which they are incurred/utilised.

3.10 For contracts covering bundled services, NGC will attempt to accurately identify the costs associated with each particular service. If this cannot be achieved then the costs will be allocated to each of the contracted services equally.

Problems with the current methodology

3.11 The allocation of the contract costs associated with energy balancing services can, in a specific set of circumstances, lead to high imbalance prices. Specifically, in settlement periods when only a small volume of Offers and Bids[3] has been accepted (or only a small volume is left to include in the imbalance pricing calculation after the tagging out of non-energy related costs), even a moderate set of costs for energy reserve options can result in large imbalance prices. This effect was seen during the first week of NETA operation. The examples below show the impact that BSAD has had on the SBP on two specific occasions.

BSAD example from 29 March, trading period 26

- BCA = £839.09 (representing option fees for 427 MW of standing reserve).

- QAO (total accepted Offers volume) = 4MW .

[3] Note that although in theory there could be equivalent spikes in the SSP to those seen in the SBP, this could only arise if NGC signed option contracts for "negative reserve" or sold option contracts.

- TLM (Transmission Loss Multiplier) = 1.02 (assumed)

- SBP adjustment = £839.09/(4MW*1.02)
  = 213.97 £/MWh

- Reported SBP = £443.05

3.12 In this example the BCA accounted for nearly half of the SBP.

BSAD example from 02 April, trading period 26

- BCA = £2397.26 (representing option fees for 724 MW of standing reserve).

- QAO = 25.35MW .

- TLM = 1.02 (assumed)

- SBP adjustment = £2397.26/(25.35MW*1.02)
  = 96.44 £/MWh

- Reported SBP = £494.77

3.13 The original intention of the BSAD Methodology Statement was to allocate the fixed costs of balancing services costs to system imbalance prices, to ensure all the costs of energy balancing actions were included in Imbalance Cash-out Prices. When the methodology was designed it was expected that these costs would be small relative to the costs of actual Bid or Offer acceptances. The first week of NETA has shown that for some trading periods, the volume of accepted Bids and Offers can be small. In these cases the BSAD Methodology Statement can result in inappropriately large adjustments to the Imbalance Cash-out Prices.

4. NGC and the BSC Panel recommendations and respondents' views

BSAD Methodology Statement

4.1 NGC submitted a report to Ofgem on 10 April 2001 that set out respondents' views on the two sets of amendments to its BSAD Methodology Statement that it had suggested. Option A removed option fees from calculation of BSAD. Option B removes Reserve Option Fees from the calculation of BCA and SCA. Two new variables (Buy Price Adjuster and Sell Price Adjuster) were introduced. Full details of the two options are set out in Appendix 1.

4.2 NGC received four responses to its consultation by close of business on 4 April 2001. A list of the respondents is set out in Appendix 3. Two respondents expressed no preference between the two proposed revisions of the BSAD Methodology Statement whilst the other two respondents supported the removal of option fees (i.e. Option A).

4.3 NGC, in response to a respondent's view, recommended that it was appropriate to make a number of minor changes to the two proposed revisions that it had consulted on. The revised BSAD Methodology Statement can be found on the NGC website (www.nationalgrid.com).

4.4 NGC made the recommendation that if option fees were to be removed from the BSAD calculation then option D should be adopted. However, if option fees were to remain then option E should be adopted. Ofgem directed NGC that the revisions to the BSAD Methodology Statement will take effect from 00.00 hours on 5 April 2001 unless NGC is otherwise directed by the Authority by 17.00 hours on 6 April 2001, or, if, later, within five hours after the time the Authority has received NGC's report.

BSC

4.5 ELEXON submitted the BSC Panel's recommendation and respondents' views on the modification report to Ofgem on 5 April 2001. A list of respondents' is set out in Appendix 4.

4.6 The BSC Panel recommended that no modification to the BSC was required, on the basis that the issue would be addressed by amending NGC's BSAD Methodology.

4.7 Prior to the consultation process, a number of alternative proposals designed to address the problem identified in the original modification proposal were identified and respondents to the consultation commented on these options as well as the original modification proposal. (All the proposed options are set out in Appendix 5).

4.8 In total there were thirty responses to the consultation. Twenty-seven of the respondents supported the option to disregard option fees in the calculation of cash-out prices (Option 1) rather than the original modification. Three respondents did not support the option to remove option fees but their opinions varied as to what should be done (although none supported the original modification proposal).

4.9 Respondents that supported the removal of option fees from imbalance prices argued that their inclusion completely distorts the incentives provided by imbalance prices and undermines the overriding NETA objective of delivering an efficient and liquid market. It was suggested that there is no economic justification for putting fixed option fees into the imbalance price calculations. Some respondents felt that since these costs are recovered through the Balancing Services Use of System (BSUoS) charges that are smeared across all BSC Parties there was no need for them to be charged to BSC Parties who are out of balance.

4.10 One respondent recognised that Ofgem has signalled in the past that energy imbalance fees should reflect the costs of all energy balancing costs including option fees. It accepted that Ofgem was trying to address NGC's contract strategy influencing Cash-out Prices, but considered that including option fees in the imbalance price calculations has not proved to be the best way of addressing this issue given the price spikes it has caused. It suggested that the appropriate place to address this concern would be through the obligations and incentives placed on NGC under their licence and incentive scheme. One respondent commented if option fees were removed from the BSAD data passed from NGC to the BSC, it would be important to ensure that it did not result in any reduction in the transparency of Balancing Services data available to participants.

4.11 Respondents that supported Option 1 generally felt that the original modification proposal, to limit the contribution of the option fees to SBP to 25% of the price, is arbitrary and would still allow imbalance prices to rise to levels that were not truly cost reflective. They argued that the complete removal of option fees from imbalance prices would be the most efficient and economic solution. Some respondents supported Option 1 as a long-term solution whilst other respondents thought that it should only be a short-term solution and that more in depth analysis is required over the coming months so that an enduring solution could be found, which would create a stable trading environment. It was argued that a longer term solution should include option fees in the calculation of imbalance prices in some way because to completely ignore them would cause perverse signals when the system was most under stress.

4.12 In general, respondents commented that they believed that the removal of option fees (or any other modification that might be accepted) from imbalance prices should be applied retrospectively to protect the interests of customers. Given that the initial settlement has yet to take place for any settlement periods, it was suggested that there was no reason not to make the modification fully retrospective. Some respondents argued that applying a modification from 00.00 hours on 5 April 2001 would fail to remove all the price distortions from option fees that have occurred in the Imbalance Cash-out Prices causing some participants to be unduly exposed to artificially high imbalance prices.

4.13 Some respondents suggested that it should be applied from the date on which the modification was originally made, 29 March 2001. Respondents in favour of this suggestion commented that the situation with regard to the treatment of option fees is unique and that they would not normally support retrospection for future modifications as this can undermine the stability of the market and contribute to regulatory risk.

4.14 Respondents that did not support the removal of option fees (and hence effectively supported the BSC Panel's subsequent recommendation not to accept the modification) voiced concerns that this modification was being implemented too quickly. They further argued that it would not be appropriate to change the BSAD Methodology Statement at this early stage in the development of the market and that excluding option fees from the calculation of imbalance prices will give the wrong signal to the market about the costs of energy reserve. Furthermore, they suggested that removing the option fees from imbalance prices would give undue control of imbalance prices to NGC, given the influence that they could potentially have on imbalance prices by switching between contracting forward and in the BM. Hence, they considered that removing option fees would not match the BSC objectives and suggested that a more thorough review was required to establish how to include option fee costs in imbalance prices in a way that meets the BSC objectives.

5. Ofgem's views

5.1 This section sets out Ofgem's views on the proposals to modify the BSAD Methodology Statement and BSC in order to remove the anomalous spikes that have been occurring in the calculation of imbalance prices in the first weeks of NETA.

Modification Number P3

5.2 The BSC modification proposal as originally submitted (Modification Number P3) sought to cap the maximum contribution that the option fee is permitted to make to System Buy Price to 25%.

5.3 Ofgem agrees with the BSC Panel that, to the extent that the original Modification Number P3 would have required the removal of a portion of the total reserve contract options fees from the calculation energy imbalance prices, then, for similar reasons to those outlined below in respect of removing option fees altogether, it does not meet the relevant objectives of the BSC.

BSAD Methodology

Rationale for Including Options Fees in the Calculation of Imbalance Prices

5.4 Ofgem notes respondents views expressed in responses to both the consultations that options fees incurred under Standing Reserve and Regulating Reserve contracts struck by NGC should be removed from the calculation of BCA.

5.5 Throughout the development of NETA, Ofgem has sought to establish the principle that energy imbalance prices should reflect all costs to NGC of participants being out of energy balance. For example, in both Ofgem's December 1999[4] and April 2000[5] consultation documents, Ofgem has sought to establish the principle that "all the costs of energy balancing should be targeted on participants who are out of energy balance whilst the costs of system balancing should be recovered from all participants". In terms of balancing services contracts, these documents argued that "this implies that the costs of

[4] "NGC System Operator Incentives, Transmission Access and Losses under NETA, A Consultation Document", December 1999.
[5] NGC Systems operations under NETA: transitional arrangements, A Consultation Document", April 2000.

reserve (option fees and utilisation or difference payments) should be targeted on participants who are out of energy balance". Specifically, with respect to option fees, we have argued that since the holding of reserve enables the System Operator (SO) to call upon additional energy at short notice, it is appropriate to provide a signal to those participants who are out of balance as to the costs of ensuring reserve capacity is available.

5.6 In Ofgem's August 2000 Consultation document,[6] we concluded that "…energy imbalance prices should, as far as possible, reflect the costs of all energy balancing costs whether incurred in the Balancing Mechanism or through energy balancing contracts purchased ahead of Gate Closure".

5.7 Ofgem continues to believe that all of the costs of energy balancing services purchased or sold should appropriately be targeted to energy imbalance prices and therefore to those participants who are out of energy balance. This includes both the option and utilisation fees of reserve services contracted by NGC prior to purchases in the BM. Ofgem believes that there is a strong economic rationale for signalling the total costs of reserve contracts (i.e. including option fees) through energy imbalance prices:

- ♦ First, to the extent that NGC purchases reserve through option contracts, this can avoid the need to purchase Offers or Bids in the BM (or energy ahead of Gate Closure), the cost of which would otherwise feed into energy imbalance prices. Therefore, reserve contract option fees are properly a part of the total costs of energy balancing in any given period and should be targeted to energy imbalance prices.

- ♦ Second, the need to hold reserve is in itself driven by uncertainty over the balancing performance of participants. Conceptually, if all participants were consistently in energy balance there would be little or no need to purchase and hold reserve. Thus, the purchase of reserve is directly related to expectations of the balancing performance of participants. For this reason, it is appropriate to signal the costs of holding reserve to those participants who are out of energy balance.

[6] "Initial Proposals for NGC's System Operator Incentive Scheme under NETA, A Consultation document and proposed licence modifications", August 2000.

- Third, if reserve contract option fees were removed from the calculation of energy imbalance prices, NGC's choice with respect to purchasing energy balancing services via contracts with option fees and other forms of contracts would be distorted. For example, if NGC purchased energy through the Balancing Mechanism, or via an utilisation price only contract, then the costs would be reflected in energy imbalance prices. However, if NGC purchase services through option contracts then the costs would not. Given the link between energy imbalance prices and NGC's SO incentive scheme, NGC (and counterparties) may face distorted incentives to choose one form of contract over another or to change the balance between option and utilisation fees in option contracts.

- Finally, if reserve contract option fees were removed from the calculation of energy imbalance prices, the choice of contract costs to incorporate in energy imbalance prices would have been made on a somewhat arbitrary basis (since the utilisation fees of these contracts would still be included).

5.8 Ofgem therefore does not accept the arguments put forward by some participants that reserve contract option fees should be removed from energy imbalance prices and instead smeared across all transmission system users (ie. through BSUoS charges).

Assessment against relevant objectives

5.9 Given the discussion above, Ofgem does not believe that the removal of option fees meet the following relevant objectives of the BSC:

- **"(b) the efficient, economic and co-ordinated operation by the Licensee of the Licensee's Transmission System"**. As a result of its exposure to imbalance prices through the net imbalance volume term in its SO external incentive scheme, NGC would face distorted incentives related to its balancing services purchasing strategy if variations in energy imbalance prices were related to whether or not it had contracted forward, rather than to fundamental market conditions.

- **"(c)...promoting efficiency in the implementation and administration of the balancing and settlement arrangements"**. If a revision were approved to remove option fees, energy imbalance prices would no longer reflect fully all the energy balancing costs incurred by NGC. Hence, participants would not face incentives related to the total costs imposed on the system as a result of their balancing performance. At the margin this could reduce the incentives on participants to self-balance. In addition, the proportion of energy balancing costs included in the calculation of energy imbalance prices would have been chosen in an arbitrary way (ie. to exclude options fees but include utilisation fees).

Ofgem's preferred approach

5.10 As discussed above, Ofgem continues to believe that option fees should be included in the calculation of energy imbalance prices. However, Ofgem accepts that the current methodology for allocating option fees to settlement periods, can cause unduly high prices during periods when a relatively small volume of Offers is accepted.

5.11 Of the revisions to the BSAD Methodology Statement put forward by NGC, Ofgem believes that the "Ex-Ante Capability Price" solution best meets the following relevant BSC objectives:

- **"(a) the efficient discharge of the Licensee of the obligations imposed upon it by this licence"**. The Ex-Ante Capability Price option is consistent with the rationale underlying the BSAD methodology i.e. to include in the calculation of energy imbalance prices, all the costs incurred in ensuring that the system is in energy balance. In addition, the Ex-Ante Capability Price option will remove the current distortions in prices that occur when a low volume of Offers is accepted in the Balancing Mechanism. The result will be energy imbalance prices that are consistent with a properly functioning and orderly market and fully reflect the costs of balancing the system.

- **"(b) the efficient, economic and co-ordinated operation by the Licensee of the Licensee's Transmission System"**. This option would ensure that NGC faces consistent incentives related to its balancing services purchasing strategy, in particular in relation to the form of contracts it agrees.

- **"(c)...promoting efficiency in the implementation and administration of the balancing and settlement arrangements"**. Energy imbalance prices would reflect fully all the energy balancing costs incurred by NGC, and participants would face incentives related to the total costs imposed on the system as a result of their balancing performance. In addition, the distortions in prices witnessed recently and caused by the combination of the BSAD methodology and the acceptance of a low volume of Offers will be removed.

5.12 However, we recognise that this option would be difficult to implement immediately because it would require changes to the BSC and BSC IT systems that will take time to develop and introduce. In these circumstances we believe that a more immediate solution to the anomalous price spikes is required. Therefore, whilst we consider that a full solution within the BSC should be developed as a matter of urgency, we consider the BSAD methodology should be amended in the meantime, such that NGC calculates a value for BCA which will achieve essentially the same result as if the full "Ex-Ante Capability Price" solution was implemented. The Authority therefore directs NGC to not remove option fees from the calculation of BSAD.

Retrospection

5.13 NGC's revised BSAD methodology is intended to take effect as of 00:00 hours on 5 April 2001. A number of participants have argued that a revised methodology for calculating energy imbalance prices should apply on and from the first trading period under NETA (00:00 hours on 27 March 2001). Ofgem agrees that a timely adjustment should be implemented. However, Ofgem considers that retrospective changes to the BSC in general, and the calculation of energy imbalance prices in particular, will damage market confidence in the new arrangements.

5.14 Ofgem believes that there are generally accepted and well understood legal reasons why retrospective modifications are to be avoided. It is a general principle of law that rules ought to deal with future acts and ought not to change the character of past transactions completed on the basis of the then existing rules.

5.15 Participants have been trading on the basis of the prices reported since NETA 'Go Live' and may have closed out positions and/or traded on the basis of an understanding of the rules in place at that time. A retrospective change to the market rules from 'Go Live' would lead to changes in reported imbalance prices that could not reasonably have been anticipated by market participants at the time. This will reduce confidence in the stability of the trading arrangements and the predictability of the form of the trading arrangements.

5.16 Despite this general principle that retrospective rule changes are to be avoided, Ofgem believes that in these particular circumstances it is appropriate for the modification to take effect from the 5 April 2001. As Ofgem announced its intention to change the rules with effect from the 5 April 2001 on 3 April 2001, Ofgem believes that market participants will have been aware of the potential rule change when trading since the announcement was made.

6. The Authority's decision

6.1 The Authority agrees with the BSC Panel recommendation, and has notified NGC, that no modifications should be made to the BSC. Instead the Authority considers that the BSAD Methodology Statement should be revised. The Authority has directed NGC not to make the revision to the BSAD Methodology Statement that removes option fees. The Authority considers that the addition of a price adjuster to the calculation of BSAD better facilitates the relevant objectives of the BSC. The change to the calculation of BSAD took effect for the purposes of settlement at 00.00 hours on 5 April 2001.

Appendix 1 The Options proposed by NGC to revise the BSAD Methodology Statement

Option A

1.1 Removal of Reserve Option Fees – this version removes Reserve Option Fees from the calculation of BSAD.

Option B

1.2 Inclusion of Price Adjusters – this version removes Reserve Option Fees from the calculation of BCA and SCA. Two new variables (Buy Price Price Adjuster and Sell Price Price Adjuster) are introduced. These variables are calculated by dividing the reserve option fees by the total contracted capability. The Price Adjusters are then added on to the System Buy Price or System Sell Price. The amendment of the BSAD Methodology Statement in this way will require an associated change to the BSC.

1.3 This document is available on The National Grid Company plc's website (www.nationalgrid.com).

Appendix 2 The Direction issued to NGC to reduce the consultation period

03 April 2001

Alison Kay
General Counsel & Company Secretary
National Grid Company plc
National Grid House
Kirby Corner Road
Coventry
CV4 8GY

Our Ref: em632ll
Direct Dial: 020 7901 7051
Email: lorraine.ladbrook@ofgem.gov.uk

Dear Ms Kay,

The National Grid Company plc ("NGC") prepared a Balancing Services Adjustment Data ("BSAD") Methodology on 20 March 2001 in accordance with the requirement under Condition 7B.6(b)(i) of NGC's Transmission Licence. The Gas and Electricity Markets Authority (the "Authority") approved the BSAD Methodology prepared by NGC on 21 March 2001.

The BSAD Methodology may be revised from time to time by NGC in accordance with the provisions of Condition 7B.6(c) of the Transmission Licence. Condition 7B.6(c)(ii) requires NGC to consult BSC Parties in relation to a proposed change to the BSAD Methodology and allow BSC Parties a period of not less than 28 days in which to make representations.

However, the Authority may direct that this minimum consultation period of 28 days does not apply by virtue of Condition 7B.6(c)(iv). Instead, the Authority may direct NGC to comply with a different consultation period.

Following from our discussions the Authority considers that a minimum consultation period of 28 days is inappropriate in relation to NGC's proposed modification to the BSAD Methodology to address the issue of price spikes in the Balancing Mechanism.

Consequently, the Authority in accordance with Condition 7B.6(c)(iv) of NGC's Transmission Licence hereby directs NGC that the minimum consultation period of 28 days does not apply in relation to NGC's proposed modification to the BSAD Methodology addressing the occurrence of price spikes in the Balancing Mechanism. The Authority directs that instead a consultation period of one working day (i.e. close of business on 4 April 2001) will apply.

Yours sincerely

DR EILEEN MARSHALL

MANAGING DIRECTOR, TRADING ARRANGEMENTS AND COMPETITION

Appendix 3 A List of respondents' to NGC's consultation on proposed changes to the BSAD Methodology Statement

3.1 In total there where four responses to NGC's consultation on proposed changes to the BSAD Methodology Statement. There were as follows:

British Energy

Enron Europe

Innogy

St Clements

Appendix 4 A list of respondents' to ELEXON's consultation on Modification Proposal P3

4.1 In total there were thirty responses to ELEXON's consultation on Modification Proposal P3. They were as follows:

AEP Energy Trading

Axia Energy Europe

Barking Power

BNFL Magnox

British Energy Generation Ltd

British Energy Power and Energy Trading Ltd

British Gas Marketing

British Gas Trading Limited

Cinergy Global Trading

Dynegy

Edison Mission Energy

Eggborough Power Ltd

Electricity Direct

Enfield Energy Centre Ltd

Enron Europe

Entergy

Fortum Direct Limited

Innogy

London Power

Maverick Energy Limited

Northern Electric

PowerGen

Scottish and Southern Energy plc

Scottish Power UK plc

Seeboard

South Coast Power

The European Power Source Company

TXU Energy Trading Ltd

Utility Link Limited

Vattenfall

Appendix 5 Modification Proposal and alternatives

6.2 The proposal as originally submitted (Modification Number 3) seeks to cap the maximum contribution that the option fee is permitted to make to the System Buy Price to 25%.

5.1 Given the degrees of freedom described above, there are, in theory, an infinite number of alternative ways in which the option fees could be taken into account in the price calculation. However, a number of specific alternative modifications have been considered which, it is believed, would deliver the same basic intent as Modification Number 3.

5.2 These are set down below:

1) **Disregard Option Fees -** Under this option, no adjustment to imbalance prices would be made as a consequence of option fees payable under balancing services contracts.

2) **Ex-Ante Utilisation -** Allocate the total annual contract option fee ex-ante on the basis of expected utilisation. Under this method, it would be necessary to forecast the expected times of contract utilisation. The total contract option fee would be pro-rated across the MWh of contract call off. The Buy Price Cost Adjustment would be changed to reflect the amount of the pro-rated option fee notionally allocated to the period, and the Buy Price Volume Adjustment would be changed to reflect the associated expected utilisation quantity.

3) **Ex-Post Utilisation -** Allocate the total annual contract option fee ex-post on the basis of actual contract call-off. As above, but base the pro-rata allocation on the basis of actual contract call off.

4) **Ex-Ante Capability Price -** Pro-rate the option payment across expected capability quantity. Under this method, the annual option payment would be pro-rated across the MWh of capability under the contract available in periods when the capability is provided. In this way a price (in £/MWh) would be determined and added to the value of Energy Imbalance Price (the proposed BSC changes to support this proposal are set down in Section 8).

5) **Ex-Ante Capability Cost/Volume Adjustments –** Under this option, the option fees are pro-rated across Settlement Periods in which the contract is active, and added into BCA for such periods. The value of BVA is also increased in such periods by an amount equal to the capability of the contract (in MWh).

6) **Ex-Post Pro-Rated on Accepted Offer Volume** – Under this option, the option fees to be paid in relation to a particular period of time (for example a Settlement Day) are pro-rated across Settlement Periods in relation to the aggregate quantity of accepted offers in such periods.

Appendix 6 The Direction issued to NGC not to implement Modification Proposal P3

10 April 2001

Alison Kay
General Counsel & Company Secretary
National Grid Company plc
National Grid House
Kirby Corner Road
Coventry
CV4 8GY

Direct Dial: 020 7901 7051
Email: lorraine.ladbrook@ofgem.gov.uk

Dear Ms Kay,

Modification Proposal to the Balancing & Settlement Code in relation to price spikes in the Balancing Mechanism

On 27 March 2001, a Modification Proposal to the BSC entitled "Correction of Price Spikes Generated by De-Minimis NGC Purchases" and with the reference number P3, was submitted to the BSC Panel (the "Proposal").

The Proposal was progressed as an urgent modification to the BSC in accordance with the provisions of Section F2.9 of the BSC and in accordance with the procedural requirements directed by the Authority on 30 March 2001.

Subsequent to the Modification Group's discussion of the Proposal, it was issued for consulation on 4 April 2001 with a request for comments by 5 April 2001. The BSC Panel met on 5 April 2001 to consider the Proposal.

ELEXON Ltd, on behalf of the BSC Panel, prepared a Modification Report pursuant to the provisions of Section F2.7 of the BSC, for submission to the Gas and Electricity Markets Authority (the "Authority"). In its Modification Report, the BSC Panel recommended to the Authority that no modification should be made to the BSC, the Code subsidiary documents or associated systems as specified in the Proposal.

The Authority hereby notifies The National Grid Company plc ("NGC"), in accordance with Section F1.1.4 of the BSC, that on the basis of the recommendation by the BSC Panel set out in the Modification Report dated 5 April 2001, and for the reasons set out in the document entitled “Correction of Price Spikes in the Balancing Mechanism, A Decision Document”, it has decided not to direct NGC to make Modification Proposal P3 to the BSC.

Yours sincerely

Steve Smith

Director of Trading Arrangements

Signed on behalf of the Authority and authorised for that purpose by the Authority.

Appendix 7 The Direction issued to NGC not to remove option fees from the calculation of BSAD

10 April 2001

Alison Kay
General Counsel & Company Secretary
National Grid Company plc
National Grid House
Kirby Corner Road
Coventry
CV4 8GY

Direct Dial: 020 7901 7051
Email: lorraine.ladbrook@ofgem.gov.uk

Dear Ms Kay,

Revision to the Balancing Services Adjustment Data Methodology Statement

The National Grid Company plc ("NGC") prepared a Balancing Services Adjustment Data ("BSAD") Methodology on 20 March 2001 in accordance with the requirement under Condition 7B.6(b)(i) of NGC's Transmission Licence. The Gas and Electricity Markets Authority (the "Authority") approved the BSAD Methodology prepared by NGC on 21 March 2001.

The BSAD Methodology may be revised from time to time by NGC in accordance with the provisions of Condition 7B.6(c) of the Transmission Licence.

Under Condition 7B.6(d)(iii) of NGC's Transmission Licence, NGC shall not revise the BSAD Methodology if the Authority directs NGC not to make the revision.

NGC submitted a report to the Authority in accordance with Condition 7B.6(c)(iii) of the Transmission Licence. The report set out (i) two alternative revisions to the BSAD Methodology originally proposed attached respectively as Annex A and B to the report, (ii) the representations made to NGC attached at Annex C of the report, and (iii) the changes to the two alternative revisions attached respectively as Annex D and E to the report.

In accordance with Condition 7B.6(d)(iii) of NGC's Transmission Licence, the Authority hereby directs NGC not to make the revision to the BSAD Methodology set out in Annex D to the report submitted to the Authority in accordance with Condition 7B.6(c)(iii).

Yours sincerely

Steve Smith
Director of Trading Arrangements

Signed on behalf of the Authority and authorised for that purpose by the Authority.